Functional grammar of Nunggubuyu

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TABLES/FIGURES/TEXT
ABBREVIATIONS/SYMBOLS

CHAPTER 1 INTRODUCTION
1.1 The Nunggubuyu people 1
1.2 Main features of the language 1
1.3 The data base and its usage here 4
1.4 Use of this grammar 6
1.5 Acknowledgements 7

CHAPTER 2 SEGMENTAL PHONETICS/PHONOLOGY
2.1 Vowel segments 9
2.2 Vowel archiphoneme /V/ and other problematic cases 10
2.3 Consonantal segments 11
2.4 Consonant archiphonemes /G/ and /N/ 13
2.5 Paired stops and continuants; the problem of /wl/ and /w2/ 14
2.6 Distributional restrictions: vowels 17
2.7 Distributional restrictions: initial and final C, CC 18
2.8 Distributional restrictions: medial CC clusters 20
2.9 CCG clusters 30
2.10 Phonologically significant phoneme classes 31
2.11 Intonation and pitch contour 32
2.12 /o1/ 33

CHAPTER 3 PHONOLOGICAL RULES
3.1 General 35
3.2 /u/-Epenthesis P-1 35
3.3 Initial Reduplication P-2 37
3.4 Final Reduplication P-3 41
3.5 Homorganic Semivowel-Deletion P-4 42
3.6 Initial Semivowel-Insertion P-5 46
3.7 /w1/-Insertion P-6 46

Contents
CHAPTER 4 NOUN MORPHOLOGY

4.1 General
4.2 Common and adjectival nouns
4.3 Adverbial nouns
4.4 Personal names, including necronyms

CHAPTER 5 KIN TERMS

5.1 General
5.2 Stem morphology
5.3 Dual /-wala/ and /-waliyun/.
5.4 Further analysis of stem forms
5.5 NPs with separate expression of propositus
5.6 Dyadic kin terms
5.7 Bereavement terms and avoidance style
5.8 Markedness relations; choice of propositus
5.9 Suffix sequence /-hara-yun/.
5.10 Kinship subcategories; body-part metonyms
5.11 Nonhuman kin terms and compounds
5.12 Kinship verbs
CHAPTER 6  PERSONAL PRONOUNS

6.1 General 241
6.2 Stem forms 242
6.3 Uses of Nominal pronouns 244
6.4 Uses of Relative case forms of pronouns 248
6.5 Unsuffixed Oblique stem (predicate genitive) 250
6.6 Other nonzero case forms 251
6.7 Vocatives 253
6.8 Contrastive /-ayun g/, /-ayung-gaj/ 254
6.9 Emphatic /-waj/, /-waj-baj/ 261
6.10 Sequential /-abilhangu/ 264
6.11 Lateral derivatives 265
6.12 Suffix /-miri/ 266
6.13 Postpositions: /-w 2 ugij/, /-maji:/, etc. 266
6.14 Interaction of pronominal and demonstrative categories 267

CHAPTER 7  DEMONSTRATIVES

7.1 General 269
7.2 Forms of predicative (unprefixed) DemPro 271
7.3 Forms of nonpredicative (prefixed) DemPro 274
7.4 Uses of predicative and nonpredicative DemPro 278
7.5 Centripetal /-ala/, Centrifugal /-ali/, Transverse /-waj/ 281
7.6 Concrete /-yun g/ 297
7.7 Absolute /-yun g/ and Absolute Dual /-yun-ba:/ 291
7.8 Centripetal plus Ablative: /an-uba-ni:-'la-wala/ 295
7.9 /-ala-yun g/, /-ala-yung-gala/, 296
7.10 /-yun g/-gala/ 297
7.11 Demonstrative adverbs (DemAdv) in general 298
7.12 Locative DemAdv in /-j1/, /-gu/ 299
7.13 Allative DemAdv in /-guni/ 303
7.14 Directional DemAdv in /-u-wuy/ 307
7.15 Centripetal DemAdv in /-ala/, /-ala-yun g/ 299
7.16 Centrifugal DemAdv in /-ali/, 313
7.17 Pergressive DemAdv in /-wa:/, /-waj-gaj/, /-ala-waj/ 314
7.18 Case suffixes with DemAdv and DemPro: Locative /-raj/ 217
7.19 Case suffixes with DemAdv and DemPro: Instrumental /-miri/ 318
7.20 Case suffixes with DemAdv and DemPro /-miradhu/, /-ala/, /-guni/, /-yun g/gyun g/, /-j1/, /-yin um/ 320
7.21 Lateral DemAdv and DemPro /yai-ji-ji-‘la/, /yai-ji-li-‘li/, /wa-ga-ga-‘la/, /wa-ni-‘la/, etc. 322
7.23 Compounds with /mulun/-/‘group’ and Gentic /nuN/- 326

CHAPTER 8  OUTLINE OF THE VERBAL INFLECTIONAL SYSTEM

8.1 Tense-Aspect-Mood-Negativity categories 337
8.2 Formal expression of the categories 338
8.3 Aspect 340
8.4 Verb reduplication 341
8.5 Imperative 343
8.6 Past Potential 345
8.7 Evitative 346

CHAPTER 9  PRONOMINAL PREFIXES WITH VERBS

9.1 General 347
9.2 Additional phonological modifications 350
9.3 Formal internal analysis of pronominal prefixes 360
9.4 Direct, inverse, and equipollent transitive prefixes 362
9.5 Categorial neutralisations in transitive prefixes 366
9.6 Paramanteus 363
9.7 The pronominal hierarchy and morpheme ordering rules 366
9.8 B-Insertion and Inverse-Insertion 368
9.9 Deletions of component morphemes within pronominal prefixes 369
9.10 A morpheme conversion rule (/-Pi- becomes -Nongs-) 372
9.11 Allomorph-Assignment for component morphemes 372
9.12 Nominative-accusative or ergative-absolutive patterning? 375

CHAPTER 10  VERBAL DERIVATIONAL AFFIXES

10.1 General 377
10.2 Benefactive /-aG/- or /-wa:G/- 377
10.3 Comitative /-nj1/- 381
10.4 Multiple prefixes: /-mara,n/- or /-maraG/-, /-wa:-/ or /-wara:-/, /-lahara:-/, /-wara-gara:-/, /-ala:-/ 383
10.5 Reflexive suffix /-j1/- 389
10.6 Reciprocal suffix /-j1/- 391
10.7 Causative suffix /-j1a:/, /-j1:/ 393
10.8 Inchoative verbalising suffixes /-ma/-, /-w1/-, /-w2/-, /-di:-/ 395
10.9 Factitive /-wala-/ , /-ga-/ 398
10.10 Minor derivational affixes: 'together' prefixes
/ -anggara-/, / -albunguN-/, /-ilbuN-/, /-ambirwir-/, /-w~aji-/; suffixes /-ja-/, /-dha-/, /-mi-/ 400
10.11 Combinations of two or more derivational affixes 402

CHAPTER 11 VERBAL INFLECTIONAL SUFFIXES 407
11.1 General 407
11.2 Verb classes 407
11.3 Identification of suffix allomorphs 412
11.4 Identification of stem-final vowel 414
11.5 YA class augments 415
11.6 Suppletive verbs: 'to come', 'to go' 417
11.7 Aspectual subsystems in the inflectional affixation 417
11.8 Assignment of verbs to inflectional classes 417
11.9 Textual attestations (selected) 421

CHAPTER 12 PARTICLES AND POSTPOSITIONS 423
12.1 Definitions: particle, postposition, enclitic particle 423
12.2 Verbal root forms 423
12.3 /a†aba/ or /a†a/ 'now, then' (immediate) 425
12.4 /mar!/ or /nAa/ 'and' 426
12.5 /wurugu/ 'later' 430
12.6 /nIjan/ 'more, again, further' 430
12.7 Anticipatory /yin-/a, /sara-/ 'suddenly', /yiyia/ 'look out!' 431
12.8 Confirmative particles: /yigai/, /nIubindi/ 434
12.9 Exhortative particles: /jiwi/, /wiwi/, /nIbaruN/, /ma/ 434
12.10 Concessive /wulha/, Adversative /yapa/ 435
12.11 Dubitative /ar/, /maa/, /nIa*hug/ 436
12.12 /yasag/ 439
12.13 Simulative /nIunYju/ 'like, as' 440
12.14 /arbiD/ 'anyway' (noun) 442
12.15 Emotive /yanba/ 'because' 442
12.16 Emotive exclamations: /a†u*, /anYjawalayan/ 444
12.17 Terminal particle /wira!/ 'that's all!' 445
12.18 Affirmative particles: /yaou/, /li/ 445
12.19 Self-corrocting /gada/ 446
12.20 Exclamations: /yaou/, /wayl/, /gey/, /yai/, /gana/, /yapu/ 446
12.21 Postpositions: /-w2uli/, /-wai/, /- usa/, /-ma/, /-liiIyug/, /-hanu/ 447

CHAPTER 13 INTERROGATIVES 453
13.1 Yes/no particles: /yuga/, /allyun/, /ala/ 453
13.2 WH interrogatives: general remarks 454
13.3 /yan/ 'what?' 455

CHAPTER 14 COMPOUNDS AND SIMILAR DERIVATIVES 463
14.1 Classification of cpds. 463
14.2 Special cpd. initials 465
14.3 Special cpd. finals 468
14.4 Auxiliary compound finals: /-uN-/ and others 469
14.5 No-NAdj and (rare) No-Nc cpds. 471
14.6 Grammatical relation of nominal cpd. initial 472
14.7 Derivational layering (double cpds., etc.) 475
14.8 Discourse uses of productive cpds. 477
14.9 Transition changes accompanying compounding 478
14.10 Unmarked (dummy) cpd. initials: /-walaN/, /-dalmaN/, /-wulhaN/, /-wuruguN/, /-malanaN/-, /-ug-/ 480
14.11 Gentilic /nun/ 481
14.12 Special nuclear initials: /bala-/ 'side', /maN-/ 'time(s)', /aganal-/ 'season', /hala-/ 'country, place' 482
14.13 /wanda-/ 'craving', /anYj/ 'being with' as cpd. initials 482
14.14 Proprietary derivation: reduplication and suffix /-y/ 483
14.15 No or NAdj nominaliser /-ji/ (with or without reduplication) 484
14.16 Abstractive nominalisations: /-j/-, /-y/ 486
14.17 Special reduplications of /anYba/ 'other, different' 486
14.18 Cpd. initial /malanaN/- 'considerably, very' 487
14.19 Actor-indexing cpd. initials for myth characters 487
14.20 Special PI/Collective initials with verb and NAdj: /-man/, /-mandag/, /-maliN/- 488
14.21 Root nouns (participial, agentive); Negative final /-ar/ 490
14.22 /-uN/- 'pair of' 491
14.23 Diminutives (compounded or by consonantal "symbolism") 492
14.24 Irregular and problematic sets 493
14.25 Numerals: /anYja-'/nYja'/nYja'/bugiN/ 'one by one' 494
Abbreviations and symbols

a) book references.

NMET Heath, Nunggubuyu Myths and Ethnographic Texts
TNT Hughes, Tales of the Nunggubuyu Tribe
MT Hughes, More Tales of the Nunggubuyu Tribe
[see Bibliography, pp. 647-48, for references]

b) phonological symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>:</td>
<td>vowel length</td>
</tr>
<tr>
<td>-</td>
<td>morpheme boundary</td>
</tr>
<tr>
<td>=</td>
<td>boundary before verb root or predicative NAdj</td>
</tr>
<tr>
<td>#</td>
<td>word boundary (in some rules also stem boundary)</td>
</tr>
<tr>
<td>C</td>
<td>consonant</td>
</tr>
<tr>
<td>G</td>
<td>stop archiphoneme, p. 13</td>
</tr>
<tr>
<td>L</td>
<td>liquid consonant, pp. 24, 134</td>
</tr>
<tr>
<td>N</td>
<td>nasal consonant or nasal archiphoneme, pp. 13-14</td>
</tr>
<tr>
<td>V</td>
<td>vowel or vowel archiphoneme</td>
</tr>
<tr>
<td>w₁</td>
<td>/w/ becoming /g/ by Hardening P-18</td>
</tr>
<tr>
<td>w₂</td>
<td>/w/ becoming /b/ by Hardening P-18</td>
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c) other symbols

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<th>Symbol</th>
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<tr>
<td>/.../</td>
<td>enclosing phonological transcriptions</td>
</tr>
<tr>
<td>//...//</td>
<td>enclosing underlying or presurface transcriptions</td>
</tr>
<tr>
<td>[...]</td>
<td>enclosing phonetic transcriptions</td>
</tr>
<tr>
<td>--</td>
<td>a) 'becomes' in phonological rule</td>
</tr>
<tr>
<td></td>
<td>b) subject/object relationship (pronominal prefixes)</td>
</tr>
<tr>
<td></td>
<td>morpheme-initial vowel contracted by VV-Contraction P-49</td>
</tr>
<tr>
<td>ø</td>
<td>zero (null morpheme)</td>
</tr>
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</table>

d) kinship terms (Chapter 5)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>♂</td>
<td>male</td>
</tr>
<tr>
<td>♀</td>
<td>female</td>
</tr>
</tbody>
</table>

[for 'Br', 'Mo', etc., see list p. 221]
Chapter 1
Introduction

1.1 The Nunggubuyu people.

This grammar completes a three-volume series begun with Nunggubuyu Myths and Ethnographic Texts (1980) and Nunggubuyu Dictionary (1982), hereafter referred to as "NMET" and "the dictionary," respectively.

The two or three hundred people who speak this language with varying degrees of proficiency were formerly hunters and gatherers on the mainland coast of Arnhem Land opposite Groote Eylandt, in the Northern Territory of Australia. The majority of Nunggubuyu were settled at Numbulwar Mission in 1952, and it was there that most of my fieldwork was done between 1973 and 1977. During the years immediately before 1952, the Nunggubuyu spent some time at other earlier settlements but, due to periodic outbreaks of friction with the locally dominant groups there and to their culturally engrained attachment to their own local territory and its food and ritual resources, they also spent much time in the bush living their traditional life. Several of my major informants and narrators therefore grew up in the bush, and even in the mid seventies spoke little or no English and had made little adjustment to European culture (as opposed to European material phenomena).

The present grammar is therefore a record of a living language spoken by fully competent adult native speakers for whom this was still the vernacular of daily life as well as the medium in which traditional culture was expressed. Additional information about clans, moieties, rituals, and individual narrators is provided in NMET; indeed, NMET as a whole is a kind of mini-encyclopedia of traditional Nunggubuyu life, told mainly by Nunggubuyu. Since this information is usually not directly relevant to grammatical matters we do not repeat it here, though we will discuss the kinship system in Chapter 5, below. Additional ethnographic references are given in NMET (pp. 10-12).

1.2 Main features of the language.

Although attaching simple typological labels to a language as immensely difficult as this one would be arbitrary and unhelpful,
I will try to mention a number of features which characterise it and which perhaps cohere with each other in some way, in order to provide an initial orientation to readers:

a) word order flexible (§15.4);
b) multi-word syntactic units like NP, VP, and clause are difficult to justify except as informal approximations or potentialities (for ex., coreferential elements in a "NP" may be scattered, and can be analysed as appositional), see §15.2, §15.3, §15.5;
c) intonational/breath groups ('strings') only occasionally coincide exactly with (intuitive) "clauses," because of frequent pauses within a "clause" and because two or more "clauses" may be run together (§15.5);
d) direct marking of cases is also rather casual, since zero (Nominaive) is used for subject and direct object, and often as an option for other case categories (§4.18ff.);
e) elaborate system of noun-class affixation, with different subsystems used for nouns, pronouns, demonstratives, and pronominal prefixes (subject-object) in verbs (§4.7ff.);
f) proliferation of morphology, with each word-class (nouns of several types, personal pronouns, demonstrative pronouns, cardinal-direction adverbs, verbs) developing its own highly unique set of forms and categories;
g) direct influence of discourse factors in much of the morphology—choice among two series of noun-class prefixes or absence of prefix (§4.8), use of a whole series of personal pronoun formations expressing different kinds of focus and emphasis (§6.8-10), use of demonstratives separately marking nuances of discourse (§7.1), prefixes (§7.4), and suffixes (§7.6-7), use of reduplication and compounding in some types of repetitions of verbs (§8.3-4, §14.8, §17.5-6), use of distinctive intonation patterns (§17.4), and use of a number of particles with framing effects (Chapter 12, §17.9), in addition to partial discourse determination of word order (§15.4);
h) extensive morphological and syntactic interactions between tense-aspect, mood, and negativeness (with effects on noun-class prefixes on nouns and pronominal concord prefixes on verbs), so that instead of separate formal expression these categories tend to blend into interactive configurations (Chapter 8, §15.6);
i) "possession" not a unified phenomenon, rather an umbrella label for a number of quite distinct formal mechanisms, including propositus[ego-of-reference] indexing in kin terms (Chapter 5), derivational ("inner") noun-class concord for whole-part harmony (§4.7, §4.9), and genitive usage of a broader "Relative" case marker (§4.30, §6.4), along with special forms for predicate genitive (§6.5), see overall discussion in §15.8;
j) use of direct rather than indirect quotation (§16.3);
k) "subordinated" clauses including Relatives having semi-autonomous status, formally with normal inflected verbs and nouns plus a subordinator (§16.2, §16.4ff.);

It is equally important to indicate some features of the more familiar languages which are not present:

a) no infinitive or similar reduced complement clause type;
b) no productive participial (deverbative) formation;
c) no productive verbal noun form (derived from verb);
d) no relative-clause construction requiring coreferential head noun (though such coreference is occasionally overtly marked in the Nunggubuyu "Relative" construction, §16.4);
e) no switch-reference system or other cross-clause rules triggered by coreferentiality (for a minor and somewhat dubious exception see the 'to want' construction described in §16.8);
f) no copula;
g) no formal distinction between imperative and future (except for 'come', §8.5);
h) aside from dubious 'to want' construction mentioned in (a), no complex surface constructions with a "higher" verb like 'can', 'must', 'promise to', 'persuade to', etc. (see §16.9 for Nunggubuyu counterparts);
i) no passive or antipassive rules creating denoted (chômeur) nouns (for derivations roughly similar to agentless passive and objectless antipassive see §10.5 and §14.9).

It is not appropriate to launch here into a long typological disquisition involving data from many other languages. However, we can say that some of these positive and negative features make sense, either by direct reference to nonlinguistic way of life (use of a few lexical, unsegmentable nouns with abstractive verbal or agentive participial meaning, instead of having productive deverbative formations, reflecting small number of traditionally institutionalised "activities" and absence of occupational specialisation), or by reference to others among the features listed. In particular, the prolific noun-class indexing system (e) and the use of discourse-controlled affixation in all major word-classes (g) seem to be centrally important, compensating for (and thus permitting) fluid word order (a), looseness of phrasal and clausal structure (b-c), casualness of case marking (a), looseness of subordination (j-k), and several of the negative features, cf. also the use of noun-class derivational marking for one type of "possession" (i).

In these respects, Nunggubuyu seems to have gone farther than even the neighbouring Aboriginal languages which I have also worked on (Ngandi, Warndarang, Mara, Ritharngu, Dhuwal, etc.). For this reason, and because these publications on Nunggubuyu are much more detailed and reflect much more effort than earlier ones on those languages, it would seem to me that Nunggubuyu is a language which deserves recognition by serious typologists, as representing maximal development of a certain discourse/grammatical strategy.
1.3 The data base and its usage here.

A casual thumbing-through of chapters in this grammar (except the early phonetics/phonology ones) will immediately reveal a large number of lists of numbers like "15.4.3, "17.5.2/3, TNT 4, MT 6." These numbers indicate textual references, and play a major part in the organisation of the present volume (as they did in the dictionary). The three-part format (own text page/number within that text, line number within that text, and line number of Nunggubuyu text) indicates occurrence of the feature in question on both line 2 and line 3 of text segment 17.5, while "17.5.2/3" indicates that the feature spills over from line 2 into line 3 of the text segment. The format used permits those readers who just want the bottom line to get it (by skimming over lists of exx., statistics, and tables, etc.), and still be able to confirm the point by double-underlining important terms and conclusions. On the other hand, it gives a more patient (or more skeptical) reader a feeling for the real data which underlie the analysis and an opportunity to "cross-examine" the author by going directly to the documents. It also encourages readers with highly specialised interests, or with a different theory of language, to discover new patterns which I overlooked or did not have space to discuss. My concern with documentation reflects my own sad experiences of the absence of numerical citations if not from the commentary. In this way, we can find it and analyse it.

These textual citations serve several purposes. When attached to a fully cited Nunggubuyu text, they have basically documentary value--the reader is assured that the ex. is from a real text, and a reader wanting to know more or having doubts about the analysis can find it and analyse it. Often, however, I cite just one or two exx. of a particular pattern in this way, rather than giving the textual exx.--readers get an immediate idea of how common the pattern is (if the list is stated to be exhaustive at least for NMET), and a reader with a specialist's interest in a particular grammatical problem will be able to analyse a much larger number of real exx. than could possibly be presented in full in a one-volume format. I also occasionally use an intermediate format, with perhaps one ex. presented in full, and with an accompanying list of other textual exx. with a schematic "English" translation or summary added to the numerical citation in parentheses or brackets. Such formats give readers at least an idea of the kinds of contexts involved, again without taking up too much space. In this way, we take maximal advantage of the published texts (especially NMET), achieving a far higher level of documentation than is observable in other reference grammars, while still being able to devote most of the pp. in this volume to commentary and analysis. The standards of accuracy and documentation which I have set for myself in preparing this volume have been high, though I may not have lived up to them uniformly. In essence, this is a corpus-based grammar, and my ideal has been to account for all or nearly all instances in the texts of each morpheme or other feature under consideration. Accordingly, I have totally revised earlier unpublished versions of this grammar, which were based on a large extent on directly elicited sentences and on my own "knowledge" of the language. In combing through the texts while preparing various sections of the final version, I have discovered that some of my rules were wrong, but above all that my rules were oversimplified, missing semantic and syntactic patterning which emerged from collating and organising large numbers of textual occurrences.

Particularly in the case of demonstratives (Chapter 7), I found it necessary in addition to generate statistics about correlations among roots and affixes. I therefore installed a concordance program in our computing centre at Harvard (the Oxford Concordance Project), typed in the more than 3000 tokens of demonstratives in NMET with a schematisation of contexts, and produced a working corpus of statistical word-lists. This material was highly valuable in identifying categorical and statistical variation patterns among the morphemes in the demonstrative system, and led to previously unsuspected conclusions about the usage of each morpheme. Some statistical material is also given in connection with nouns (Chapter 4), though in that case the problems were more manageable and the corpus would not need computational resources. The extensive exposition of textual citations and statistics in many chapters of this volume may strike some readers as reflecting a personal fetish of mine. While this may be true, it is a fetish which I would defend. The format used permits those readers who just want the bottom line to get it (by skimming over lists of exx., statistics, and tables, etc.), and I still assist them further by double-underlining important terms and conclusions. On the other hand, it gives a more patient (or more skeptical) reader a feeling for the raw data which underlie the analysis and an opportunity to "cross-examine" the author by going directly to the data. It also encourages readers with highly specialised interests, or with a different theory of language, to discover new patterns which I overlooked or did not have space to discuss. My concern with documentation reflects my own sad experiences of the absence of numerical citations if not from the commentary. In this way, we can find it and analyse it.

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Aside from the difficulty of arriving at satisfactory analyses of a phonologically and morphosyntactically complex language like this, I have the problem of a potentially divergent readership with quite different interests—teachers and literacy personnel at Numbulwar, academic linguists specializing in Australian languages (perhaps mainly interested in historical reconstructions), and other linguists with different theoretical specialties.

I think it would be advisable for most readers approaching the language for the first time not to try to read the grammar chapter by chapter, like a novel. I would suggest an initial skimming around, with subsequent more concentrated reading of those chapters or sections of most immediate interest.

For example, someone interested in comparative Australian linguistics (e.g., the genetic position of Nunggubuyu) might find the verbal morphology, notably the pronominal prefixes (Chapter 9) and the inflectional suffixes (Chapter 11), the most useful for purposes of reconstruction and genetic classification, since these are relatively closed paradigmatic systems. Such a reader will also have to learn the phonological rules (Chapter 3) fairly well.

A teacher or literacy person would probably do best to concentrate on the morphology chapters, with occasional reference to relevant phonological rules; the outline of the verbal inflectional system in Chapter 8 should be learned well.

A theoretical linguist interested in morphosyntax typology (or a typologically conscious morphophonology such as relational grammar or ergative-syntactic theory) should start from the list of major typological features in §1.2, above, and should begin by following up the references given there to various specific sections in later chapters. If such a reader has a functional-discourse orientation and is at least willing to consider such an approach, I recommend Chapter 17 (mainly a discussion of a particular text and the various morphosyntactic features which interact in it to produce referential clarity and discourse coherence) as a basic point of departure, since it shows the various morphological forms discussed elsewhere "in action," so to speak.

A more traditional syntactician would probably be attracted mainly to Chapters 15 and 16. I hope, however, that those chapters make it clear that "syntax" is difficult to separate from "morphology" and "discourse" even to the extent this separation is possible in analyzing English; some central conclusions of Chapters 15 and 16 suggest there is no purely syntactic solution to many of the problems raised there.

A theoretical phonologist will have to learn something about the morphology as well as examining Chapters 2 and 3, since many of the phonological rules are morphologically restricted, and since some "phonological" rules have a partly morphological character (both types of reduplication, nθu-Epenthesis, etc.). With regard to current debates about root-to-affix phonological cycles, such readers should note the general points in §3.94, and should go over the ordering relationships discussed in §3.52-53. It should be noted that the cases of cyclical application of rules affect the portion of the word going leftward from the root (for compound, the final root) in a somewhat different way from the rightward portion. In addition, it can be argued that a distinct "inner" cycle of rules applies within the component morphemes of the pronominal prefix of a verb, so there are two distinct clusters within with the earliest (morphophonemic) rules apply. The notions of 'contact', 'blind', and 'one-eyed' rules are developed in §3.95 as a way of looking at various boundary rules, depending on the extent to which a process affecting an outer segment of one morpheme requires knowledge of specific phonological segments on the other side of the boundary.

For linguists interested in metrical and "autostructural" phonology, one of the more interesting rules is Initial Reduplication P-2 (§3.3), which in its productive application gives bisyllabic reduplicative segment when the stem begins with a stop, monosyllabic otherwise—thus the specification of CV(CV)—canonical shape for the reduplication is not independent of the specific segmental composition of the stem. (There is also a quite different Final Replication P-3). Such phonologists may also want to examine some of the insertions and epenthesis rules (P-1, -7, -9, -20, and -21 in §3.2/8/21/22, respectively), as well as the rules affecting vowel length.

Aside from grist for particular existing phonological models, I would hope that some rather language-specific phonological patterns would be noticed. For example, a synchronically somewhat peculiar class of "paired continuants" including most sonorants, monosyllabic sonorants acts as a set in some crucial rules (§6.5, §2.10). Related to this, a quite curious nθu-Epenthesis rule P-1 (§3.2), inserting a dummy morpheme -nθu- in a partly phonologically defined environment, can be looked at as a kind of functional adjustment to the Hardening rule (P-18)—i.e., a device to counteract some threatened surface mergers. This kind of consideration is rarely noted in discussions of phonological theory.

While I welcome theoretical usage of the material in this grammar, I would suggest that modeling of the data be evaluated on the basis of whether it sheds light on some largerish combination of Nunggubuyu data. More demonstrations that a given model, with or without patching up for the occasion, can "handle" some Nunggubuyu facts will be less impressive.

Because this is designed to be a permanent reference grammar of an interesting language, my discussion in chapters to follow is not overtly subordinated to current theoretical debates. However, many passages have been implicitly written with some such debates in mind, and usually it is not difficult to see how the data could be applied to them. The real test of this grammar, however, will be whether it continues to be useful some years hence for linguists interested in different issues and using different formalisms.

1.5 Acknowledgements.

The fieldwork was done between 1973 and 1977 and lasted three years, excluding one year in the middle when I was back in Chicago. My fieldwork was supported by the Australian Institute of Aboriginal
Studies (A.I.A.S.). I thank the then Principal, Peter Ucko, along with Bob Dixon and Michael Silverstein, for helping to arrange that opportunity. In addition, I have many obligations to staff members of the Institute, too numerous to name, who provided expert assistance in such areas as servicing and air-freighting user tape recorders, maintaining a fine library in Canberra, processing my tapes and manuscripts, and publications. To mention only the linguists connected with the Institute at that time, I thank Barry Blake, Barry Alpher, Peter Sutton, Paul Black, Bruce Rigby, and Michael Walsh for various forms of services and support.

The job of writing and typing the three Nunggubuyu volumes has required considerable post-fieldwork time. Fortunately, my position at Harvard has permitted me to finish the dictionary and continue work on the grammar. I acknowledge primary support in 1981 from the National Endowment for the Humanities (research fellowship), and local support during parts of that year from the Universitaet Hamburg (Prof. Jurgen Meisel), the Freie Universitaet Berlin (Prof. Norbert Dittmar), and again from A.I.A.S. (courtesy of then Acting Principal Warwick Dix).

It would be impossible to list all of the Australianists, linguists and (other?) anthropologists, to whom I have debts of one kind or another, and from whom I have learned something useful about the Aboriginals and their languages.

At Numbulwar, I thank the town council for my initial research permit and subsequent renewals. I particularly thank Lindsay and Dirrjuna, and for hospitality at Roger River (Ngukurr) also the Rev. Michael Gumbili (another Nunggubuyu).

The Rev. Earl Hughes, the former chaplain at Numbulwar and the author of the first publications on the language (see References), left before I arrived, but of course his work, principally his texts and dictionary, were of great value to me. I have debts, in addition, to linguists who were there while I was—Miss Kathy Warren (teaching turned literacy specialist), and later on Mr. Michael Hore (Bible translator). I thank Mr. Hore in particular for replying to my recent inquiries about paradigmatic gaps.

I think that anyone who reads this grammar will appreciate how hard it must have been for a young graduate student to tackle this language, but also how rewarding the experience eventually proved to me. I have debts, in addition, to linguists who were there while I was—Miss Kathy Warren (teaching turned literacy specialist), and later on Mr. Michael Hore (Bible translator). I thank Mr. Hore in particular for replying to my recent inquiries about paradigmatic gaps.

Whether they know it or not, the Nunggubuyu who served as my hosts Warren (teaching turned literacy specialist), and later on Mr. Michael Hore (Bible translator). I thank Mr. Hore in particular for replying to my recent inquiries about paradigmatic gaps.

I think that anyone who reads this grammar will appreciate how hard it must have been for a young graduate student to tackle this language, but also how rewarding the experience eventually proved to be in the long run—taking him close to grips with phenomena which are scarcely dealt with in a conventional linguistic curriculum.

My debts are thus mainly to Nunggubuyu. I thank my earliest teachers (Mujiji, Jibulunguy, Milton, Dick), and my later one Yurrumurra, who engaged in elicitation sessions but mostly helped me understand and transcribe recordings. My (other) narrators, mostly now dead, were acknowledged more fully in the texts volume but deserve another mention—Ndadi, Larrangana, Gaagadug, Johnnie, Reuben. May their descendants prosper.

§1.5

Chapter 2
Segmental phonetics/phonology

2.1 Vowel segments

In this chapter we identify the phonemes and archiphonemes of the language, and discuss the general principles behind their combination into morphemes and words.

The vowels are:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Surface pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>[i]</td>
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<tr>
<td>u</td>
<td>[u]</td>
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<tr>
<td>it</td>
<td>[i]</td>
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<tr>
<td>u:</td>
<td>[u]</td>
</tr>
<tr>
<td>o</td>
<td>[o]</td>
</tr>
</tbody>
</table>

Surface long vowels may represent underlying long vowels, or may arise by VV-Contraction P-49. (For phonological rules P-1 through P-50 see Chapter 3.) With regard to underlying long vowels, there do not seem to be any minimal pairs for /i/ vs. /i/ or /u/ vs. /u/. However, there are a handful of pairs involving /a/ vs. /ai/, hence /hanja/ 'antmound' vs. /ha:nda/ 'young kangaroo' (no etymological relationship); /harag/ 'quinine bush' vs. /ha:rag/ 'log coffin'; /=wala/- 'to arrive' vs. /wala/- 'to put (things) together' (for /w/ vs. /w/ see below, §2.3).

These phonemic (underlying) length contrasts are of very little functional interest. Aside from the fact that only a handful of pairs can be found, the items in question are usually distinguishable even when the length opposition is blurred: the paired nouns above have different noun-class prefixes, and the verbs differ in transitivity (hence in pronominal prefixation).

Of more functional significance is the length opposition created by VV-Contraction P-49, an important rule applying at morpheme boundaries with underlying vowels on both sides. For example, Benefactive prefix /-e/- may be realised on the surface solely by lengthening the preceding vowel (in environments where the CC-archiphoneme is deleted without leaving a trace by Stop-Deletion P-29, and when the preceding morpheme ends in //l//): /nani=/na:na=/ 'he saw me' vs. /nani-w=-=na-n// 'he saw (it) for me'.

Also important are length oppositions in the pronominal prefixes used with verbs. Thus /nani/- 3MSg→lInd=na vs. /na:ni/- lExMDu→
Phonetically, short and long vowels are distinguished both by duration and by effect on word intonation, with long vowels characterised by higher pitch. However, these phonetic oppositions are by no means consistent, because phrasal or word-level intonational patterns may override segmental length in particular utterances. The transcription of phonemic vowel length for lexical items requires listening to the item a number of times, preferably in a variety of morphological frames in naturalistic utterances. As an indication of the difficulty linguists have had in transcribing vowel length for this language, it may suffice to point out that the pioneering publications by Hughes recognise phonemic length only for /a/ vs. /a:/ (his "aa"); that one other linguist who worked on the language subsequently came to the conclusion that there were no phonemic length oppositions; and that even once we agree what the phonemes are, the various linguists have disagreed among each other as to which morphemes should include length. One linguist now working on the language has indicated (p.c.) agreement with about 95% of my length transcriptions for lexical items, which suggests that at least some convergence is now occurring; the major disagreement involving affixes is my /...i-n/ vs. the other linguist's /...i--n/ (with Past1 or NonPast1 suffix /-n/ added to verb stem). Some particular morphologically determined alternations involving short and long vowels are discussed in phonological rules P-39 through P-45 (see also P-20, -35, -36, and -49).

2.2 Vowel archiphoneme //V// and other problematic cases.

Ordinarily, the vowel for each syllable is given in underlying forms and is independent of vowels in adjoining syllables and independent of adjacent consonants. However, there are some rules given in the next chapter (V-Ablaut P-37, V-Assimilation P-37, V-Fronting P-50), each of which subsumes an assortment of morphologically restricted cases where vowel quality is determined by the vowel of the next syllable (P-37), by a following "palatal-type" consonant (P-50), or by an irregular ablaut process (P-38).

In many cases, a vowel which is affected by one or more of these rules in some contexts is unaffected by them in others, so that we can determine the underlying vowel quality. However, in a very small number of morphemes, the surface quality of a given vowel is always determined by one of these rules (P-37, -38, -50), so we represent the vowel in underlying forms by the archiphoneme symbol //V// (or long //V//).

The morphemes in question are certain component morphemes in pronominal prefixes used with verbs, under the maximally abstract analysis of Chapter 9. These morphemes are LEXNonsg //wV--// or //wV--// (length depends on morphological position), LEXNondu //wV1--//, and Nonag //wV2--// in some positions. The LEXNonag and LEXNondu morphemes are always followed by at least one other (nonzero) component morpheme within the pronominal prefix. This is true of the cases of Nonag //wV2--// which we are interested in; there are some other cases where the Nonag morpheme is final within the pronominal prefix, but there it acquires any of three surface vowels (/a i u/) depending on morphological factors, so no general base form for the morpheme can be given with a fully specified underlying vowel. The LEXNonag, LEXNondu, and (relevant cases of the) Nonag morpheme become /a/ (or /a:/) before inverse morpheme //NgV--// (archiphoneme, with ablaut affecting preceding vowel), and assimilate the vowel quality of the following syllable in all other combinations.

There are some other component morphemes in pronominal prefixes which are subject to V-Ablaut P-38 or V-Assimilation P-37 (or both) in some contexts, but they also occur in some combinations where we think we can identify an underlying vowel quality (see discussions of P-38 and P-37, next chapter).

Another place where there is some difficulty in identifying a unique underlying vowel quality is at the end of a verb root (i.e., just before the inflectional suffix marking tense-aspect, etc.). For example, consider these inflected forms of the verb 'to arrive': Past1 /=w2ala-ngi/, NonPast1 /=w2alani//, and NonPast2 /=w2all-//, and Evitutive /=w2ala-nfan/. I take these roots of this type as ending in //a//, hence /=w2ala// is the dictionary representation; this is because, in the context of the overall morphological analysis of inflected verb forms (Chapter 11), it appears possible in this class (A-2) to take surface vowel /=w2ali-// as from /=w2alani// with V-Fronting P-50 before Past1, //=/ and NonPast1 /=/=//, and surface /=w2alali// in the NonPast2 as reflecting V-Contraction P-49 from /=w2ala-l//. While the final surface /a/ in the NonPast2 can also be explained away (this time by V-Ablaut P-38), there is no obvious or independently supported rule for deriving final /a/ in the Past2 or Evitutive forms from any distinct underlying vowel; we therefore set up underlying //a//.

Similar arguments are used for the other inflectional verb classes (Chapter 11). However, it must be recognised that the arguments in this instance are often indirect, and that we are dealing with rather fused sequences where the morpheme boundary's location (not to mention the precise underlying segmental transcription) is perhaps synchronically ambiguous. See discussion in §§11.3-4.

In other morphological environments, underlying transcription of vowel qualities is straightforward. This remark applies to noun stems, verbs except for root-final vowels, case suffixes, postpositional suffixes, derivational prefixes and compound initials, prefixes (except component morphemes within pronominal prefixes in a few cases), and uninflected particles.

2.3 Consonantal segments.

The consonant phonemes are set out in Table 2-1.
As in most Australian languages, there are two rhotics: tap both series, while the other stops are phonetically lenis (i.e., are strongly laminal. Alveolars

| Semivowels are “r” and are indeterminate morphophonemically. More 
|}
to a following consonant except when it is deleted entirely; thus
it shows up as surface velar in ANA→156g // nga\\-N-u // (Hardening P-18)→n^3a-Nu // (Nasal Assimilation P-27),
but as surface labial in 3PL/WARA→156g // nga\\-N+bi // (P-18)→n^3ambi // (P-27). (We generally omit internal
hyphens in surface transcriptions of pronominal prefixes.)
Other morphemes for which //N/ is given in the dictionary as
final segment are Gentilic //nuN// (used mainly with clan names §14),
and these minor compound initials or derivational elements:
//-ihaN//, //-ihaaN//, //-lahN//, //-n^3aN//, //-yaN//, //-sabaN//,
//-albunN//, //-\-an//, and //-11bunN//. In all of these we have a nasal segment which acquires surface point of
articulation from the following consonant, or else is deleted by
the usual rule which deletes (certain) nasals in the relevant
combinations (Nasal-Deletion P-30).

For the majority of prefixes, compound initials, and the like
we do not need consonantal archiphonemes: either the morpheme
clearly ends in a vowel, or it ends in a consonant which can be
uniquely specified. Many compound initials, for example, are merely
special uses of stems which also occur as independent nouns, and
in the latter function it is easy to determine the final segments.

2.5 Paired stops and continuants; the problem of //w// and //w2//.

Nunggubuyu is characterised by a series of alternations in which
each of the six stop phonemes is paired with another consonant
(lateral, rhotic, or semivowel):

\[ b ↔ w2 \]
\[ dh ↔ lh \]
\[ d ↔ r \]
\[ ŋ ↔ Σ \]
\[ j ↔ y \]
\[ s ↔ w1 \]

In most instances, the stop is derived from the other consonant
by Hardening P-18, a rule which applies to the underlying consonants
shown above (in the right column) when they are preceded by a stop
or nasal (see top of this page for exx.). However, there is also a
more restricted morphophonemic rule in which the stop appears to be
underlying and the other consonant derived (Lenition P-16). (Other
hardening/lenition rules are P-17 and -19.)

In this publication we use the term **continuant** (or paired
continuant) for this specific set of sonorants related by these
rules to the various stop phonemes. Note that this set of six
continuants does not form a natural phonetic class, since three
liquids are included but two others (/1 1/) never alternate with
stops.

The other problem, of course, is that //w// is related both to
/b/ and to /g/. This forces us to recognise two distinct entities
which we label //w2// (related to /b/) and //w1// (related to /g/),
though this distinction can only be made in morpheme-initial

+-----------------------------+---+
| §2.4, §2.5 |
+-----------------------------+---+
\( /\text{w}/ \) and \( /\text{w}/ \) might be articulatorily distinct as surface consonants, with the consequent possibility of distinguishing them even in morpheme-medial (or final) position. In environments where \( /\text{w}/ \)-Deletion P-9 is applicable, instead of complete deletion one sometimes hears (and/or sees) a half-hearted lip-rounding, giving a faintly audible approximation to surface \( /\text{w}/ \). However, speakers differ in their treatment of \( /\text{w}/ \) in these positions (some retaining it, others deleting it entirely, others half-pronouncing it, or fluctuating among these). There does not seem to be any distinction possible in such environments as \( /\text{u}/_\text{a}/ /\text{u}/_\text{a}/ \). In general, attempts to transcribe \( /\text{w}/ \approx /\text{v}/ \approx /\text{m}/ \) morpheme-internally have been unsuccessful, and my feeling is that the fairly systematic distinction between such surface forms as \( /\text{u}/_\text{a}/ /\text{u}/_\text{a}/ \) (initial position) is limited to morphone-initial position, where it is reinforced by the important phonological opposition between the two in connection with Hardening P-18.

In some lexical items, initial \( /\text{w}/ \) fluctuates between \( /\text{g}/ \) and \( /\text{b}/ \) as its hardened counterpart, hence dictionary entries give both \( /\text{w}/ \) and \( /\text{w}/ \) as variants. In the case of \( /\text{w}/_\text{yuguyuma}/ \) 'to carry in arms', \( /\text{w}/_\text{undul}/ \) 'calm', \( /\text{w}/_\text{ulhuwulhur}/ \) 'first, (liquid) on' the hardened form is always \( /\text{g}/_\text{yuguyuma}/ \) in compounds, but can be either \( /\text{g}/_\text{yuguyoma}/ \) or \( /\text{g}/_\text{b}/_\text{yuguyma}/ \) in uncompounded form. The same pattern is found with \( /\text{w}/_\text{uldhna}/ \) 'to sever' and with \( /\text{w}/_\text{irgira}/ \) 'to be skinny' (i.e., variants with \( /\text{w}/ \) occur occasionally in uncompounded forms only). On the other hand, with \( /\text{w}/_\text{ayama}/ \) 'to proceed, keep moving' and \( /\text{w}/_\text{ulnuwulhur}/ \) 'first, previous' the hardened form in compounds is with \( /\text{b}/ \) as in all attested exx.; again, the uncompounded form shows \( /\text{b}/ \) or \( /\text{g}/ \). As though the older form is best preserved in compounds, while the uncompounded forms show some tendency to introduce fluctuation. Other stems for which some variation is attested are \( /\text{w}/_\text{ajala}/ \) 'to pull out edge roots', \( /\text{w}/_\text{alhalha}/ \) 'to shake spear with wooversa', \( /\text{w}/_\text{awaradu}/ \) 'to eat leftovers in morning', \( /\text{w}/_\text{awaraguru}/ \) 'to carry along', \( /\text{w}/_\text{awajara}/ \) 'to lay out (bed)', \( /\text{w}/_\text{awuyugunuma}/ \) 'to carry in arms', \( /\text{w}/_\text{awudul}/ \) 'calm', \( /\text{w}/_\text{awul}/ \) 'to lift up', and \( /\text{w}/_\text{udhe}/ \) 'to be up (on roof)', where we show \( /\text{w}/ \) or \( /\text{g}/ \); in the transcription only if there is a compound attached showing the presumably older form.

With some noun stems, the distinction between initial \( /\text{w}/ \), \( /\text{w}/ \), and \( /\text{b}/ \) may be difficult to determine in underlying transcriptions. The distinction is very clear in verbs, and if the verb forms start with \( /\text{w}/ \approx /\text{v}/ \approx /\text{m}/ \) the same tests are applicable.

Word-initially, \( /\text{a}/ \) and \( /\text{a}/ \) are permitted in underlying and surface forms. Underlying \( /\text{w}/ \) and \( /\text{a}/ \) also occur, but a homorganic semivowel \( /\text{u}/ \) is normally inserted before them in this position by Initial Semivowel-Insertion P-9, so: \( /\text{w}/ \rightarrow /\text{u}/ \) and \( /\text{a}/ \rightarrow /\text{u}/ \). For exx. of this see the discussion of P-5, next chapter. Exx. of \( /\text{a}/ \) and \( /\text{a}/ \) are ANA noun-class prefixes \( /\text{ana}/ \) and \( /\text{a}/ \), the latter with variant \( /\text{a}/ \) before one demonstrative root (see P-35) and before one noun (see P-43, next chapter); \( /\text{agag}/ \) 'yesterday', \( /\text{a}/ \) 'ground, earth', and \( /\text{m}/ \) 'female'. Some stems which can occur word-finally are \( /\text{u}/_\text{adini}/ \) 'teat', \( /\text{u}/_\text{algalgi}/ \) 'yesterday' Nonplst. There are some which must be mentioned. Word-initially, \( /\text{a}/ \) and \( /\text{a}/ \) are permitted in underlying and surface forms. Underlying \( /\text{w}/ \) and \( /\text{a}/ \) also occur, but a homorganic semivowel \( /\text{u}/ \) is normally inserted before them in this position by Initial Semivowel-Insertion P-9, so: \( /\text{w}/ \rightarrow /\text{u}/ \) and \( /\text{a}/ \rightarrow /\text{u}/ \).
Vowel clusters do not normally occur within a word in surface forms. The exception is that some cases of bisyllabic /aa/ have been observed, generally due to deletion of a previously intervening underlying /w/ or etymological *w (see p-9): /bagaraag/ `cycad nut', /=lhaayi-/ `to lie stretched out in line', etc. There are no major restrictions on the combinability of vowels with preceding or following consonants. There are some cases of a back vowel shifting to /i/ before a "palatal-type" consonant /j n y/, but this is sporadic and limited to a few tight-knit combinations (see P-50). Both short and long vowels can occur before consonant clusters: exx. of long vowels are /ba:lm/ `pelican' and //n:m:ba=nma-n=// /ma:ba:nma=n=// `we(InPL) will look for them(WARA)'. Aside from forms involving monosyllabic noun or verb roots, long vowel /-/ with long vowel followed by consonant seems impossible.

2.7 Distributional restrictions: initial and final C, CC.

The basic consonants shown in Table 2-1 can all occur word- or stem-initially. An exception is the rare phoneme /y/, shown in parentheses in Table 2-1, since this interdental nasal occurs only medially in a handful of uncommon noun stems. Both long and short vowels can occur before consonant clusters: exx. of long vowels are /ba:lm/ `pelican' and //n:m:ba=nma-n=// /ma:ba:nma=n=// `we(InPL) will look for them(WARA)'. Aside from forms involving monosyllabic noun or verb roots, long vowel /-/ with long vowel followed by consonant seems impossible.

The basic generalisations are these: interdental /dh nh lh/ do not occur finally (this is part of a more general restriction limiting these consonants to syllable-initial position); labial occurs finally only in a handful of interjections, including verbal root forms (see §12.2); /m/ is also very rare, although the other semivowel /y/ is not uncommon; apicals are reasonably common, but velars and laminoalveolars are most common of all.

Table 2-2

<table>
<thead>
<tr>
<th>Final Consonants</th>
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<tbody>
<tr>
<td>stop:</td>
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<tr>
<td>b</td>
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<tr>
<td>*dh</td>
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<td>d</td>
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<tr>
<td>semivowel</td>
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<tr>
<td>y</td>
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<tr>
<td>w</td>
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</tbody>
</table>

Let us now consider word- and stem-final consonants (excluding clusters for the moment). The following table identifies consonants which are rare or impossible in this position.

The basic generalisations are these: interdental /dh nh lh/ do not occur finally (this is part of a more general restriction limiting these consonants to syllable-initial position); labial occurs finally only in a handful of interjections, including verbal root forms (see §12.2); /m/ is also very rare, although the other semivowel /y/ is not uncommon; apicals are reasonably common, but velars and laminoalveolars are most common of all.

Attested exx. of /b/ are /sub/ `to spear', /gab/ `to eat', /gub/ `to eat', and /julub/ or /lub/ `to jump in'; all of these are uninflected root forms pronounced as interjections. Exx. of /m/ are /man/ `to eat', /gum/ (sound of popping), and one pronunciation of the noun /jumab(1)/, a rare stem designating one of the five fingers (possibly a borrowing). The attested exx. of /w/ are two root forms, /jamgaw/ and /jaw/ `to pick up', and two bird terms; /gambaw/ `bittern sp.' and /garbaw(g)/ `owl sp.'.

These restrictions on /b/, /m/, and /w/ can be generalised to all morpheme-final position (i.e., including prefixes and compounding initials) in underlying forms, though on the surface we can get /w/ as final segment of a nonfinal morpheme by Nasal-Assimilation P-17, as in /aa-mara=ngaug/ /aa-mara-ba:/ `two hands'.

These are all nouns formally. Verb forms have more limited possibilities, since verb roots end in vowels, and since the obligatory inflectional suffixes which follow them are few in number (those ending in a consonant have final /y/, /n/, /n g/, or /n Y/).

Word- or stem-final /ce/ clusters are rather restricted. The form /garbaw/ 'owl sp.' was recorded, though other speakers have just /garbaw/. Aside from this, the only final /CC/ clusters attested are of the type /l r s/ plus velar or laminoalveolar stop or nasal (/g j n s n Y/), and not all possible combinations of these are attested. The recorded clusters, each given with one ex., are these:

<table>
<thead>
<tr>
<th>CC</th>
<th>Ex.</th>
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<tbody>
<tr>
<td>wg</td>
<td>garbaw(g) 'owl sp.' (variant)</td>
</tr>
<tr>
<td>lg</td>
<td>lhagabungul 'dirt'</td>
</tr>
<tr>
<td>rg</td>
<td>dhambug 'feathered stick'</td>
</tr>
<tr>
<td>wg</td>
<td>wumbug 'mangrove tree sp.'</td>
</tr>
<tr>
<td>wg</td>
<td>warbarg 'crow'</td>
</tr>
<tr>
<td>*1l</td>
<td>lhaborj 'important'</td>
</tr>
<tr>
<td>*1g</td>
<td>dhabarj 'fish tail'</td>
</tr>
<tr>
<td>*1r</td>
<td>lhamul 'root tuber'</td>
</tr>
<tr>
<td>*1ng</td>
<td>dhamugul 'genitals'</td>
</tr>
<tr>
<td>*1m</td>
<td>wumurn s 'shelter'</td>
</tr>
<tr>
<td>*1n</td>
<td>---</td>
</tr>
<tr>
<td>*1n</td>
<td>---</td>
</tr>
<tr>
<td>*1n</td>
<td>---</td>
</tr>
<tr>
<td>*1n</td>
<td>marin s 'snake'</td>
</tr>
</tbody>
</table>

Evidently /r/ is particularly common as first element, with /l/ probably next most common; /g/ is most common as second element.

2.8 Distributional restrictions: medial CC clusters.

We deal here with medial clusters of two consonants, both within and across morpheme boundaries. /CC/ clusters are dealt with in §2.5, below.

On the following page, Table 2-3 summarises the attested /CC/ clusters (note that the table's explanation carries over into the page after that). The table is somewhat simplified, but still perhaps difficult to understand, and for that reason we will try to provide a reasonably clear prose commentary here.

First, we observe that interdentals /dh nh lh/ never occur as first member of a cluster (more generally, they never occur in syllable-final position). The only possible counterexample would be the homorganic nasal-stop cluster /ndh/, if retranscribed as /nhdh/ (the two do not contrast).
Explanation of Table 2-3. Each possible cluster is shown in the table with the first consonant identified by the row headings running down the far left of the page, and the second consonant identified by the column headings running along the top. For each possible cluster there is a sequence of three symbols (-x-): the first indicates whether the cluster occurs within a morpheme, the second indicates whether it occurs as underlying (or other presurface) cluster across a boundary, and third whether it occurs as surface cluster across a boundary. Symbol x means yes, symbol - means no, ? indicates uncertainty as to whether the cluster is prohibited or merely happens not to be attested, & indicates that a surface cluster at a boundary is possible but unattested. Thus -x- means that the cluster is unattested within a morpheme, that it occurs in presurface representations at boundaries, but is not realised on the surface in this form at those boundaries.

Second, the rare interdental //\h/ is even more restricted than other interdentals, since it cannot even occur as second member of a cluster (recall that it is likewise unattested as morpheme- or word-initial segment).

Third, labials /b/ and /m/ do not occur as first members, except for the important homorganic cluster //mb/. Semi-vowel /w/ is also very rare as first member; there are no attested clusters //w/ within a morpheme, and the only possible clusters of this type at boundaries are combinations of the two bird terms ending in //w/ (see preceding section) plus a case suffix.

Fourth, velars /ŋ/ and /g/ do not occur on the surface as first member, except in the important homorganic cluster //nɡ/.

Both /h/ and /g/ are common as first members in presurface forms, but /g/ is deleted by Stop-Deletion P-29, and /h/ is deleted by Nasal-Deletion P-30 or else assimilated by Nasal-Assimilation P-27.

Fifth, the "paired continuants" (see above, §2.5) //h r x w y/ do not occur as surface forms following a stop or nasal; if such underlying clusters occur at a boundary, the constituent is converted into the counterpart stop by Hardening P-18.

Having given these five general remarks (which we will refer to in what follows), we now go over particular types of cluster (stop-stop, nasal-stop, etc.) one by one, indicating the types of boundaries where the clusters occur, the rules which alter underlying clusters, and rules which create surface clusters. We refer to the most significant phonological rules (Chapter 3), but do not aim at completeness.

stop-stop. Possible underlying initials are /d j g/; possible finals in underlying forms are all six stops. Since no relevant suffix begins with underlying stop, and no inflectional prefix ends with a stop, the only possible underlying stop-stop combinations are compounds and similar derivatives, in practice almost exclusively with a verb as the second morpheme. It is difficult to produce all relevant underlying clusters since relatively few verbs begin with underlying stop and since /d j g/ in particular are uncommon at the end of compound initials or derivational prefixes.

Moreover, compounds and derivatives of this type normally trigger //u/-Epenthesis P-1, which inserts a dummy morpheme //u-// between the verb and the preceding compounding/derivational element, so the underlying stop-stop sequence is not realised as such. On the other hand, surface stop-stop clusters are created by Hardening P-18 from underlying clusters with a stop followed by a paired continuant across a boundary. Thus underlying //j-b/ at a deriva­tional boundary will become //j-m-ngu-b// (and eventually //j-nu-m-u-b//) by P-1 (and P-27), but underlying //j-w/ at any kind of boundary will become surface //j-b/ by P-18. Thus //j/ is one of a set of stop-stop clusters which occur both in underlying and surface forms at boundaries, but where the underlying and surface exx. happen to involve a completely distinct set of combinations.

Generalisations discussed earlier in this section explain the absence of /h/ or /b/ plus other stop, and the surface absence of /g/ plus other stop (because of P-29). Geminate clusters like //dd// and //jj// are reduced by Geminate-Contraction P-31. Other clusters involving //d/ plus coronal stop /dh d ɡ/ are unstable as surface forms because the //d/ is often deleted by Palatal-Deletion P-26.

Some exx. of stop-stop clusters within morphemes: /wadbaE/ 'grevilla', /wuhda/ 'cocky-apple', /babarda/ 'mat', /wawadha-/ 'to get bogged', /wawadjara/ 'fighting stick', /bagawawada/ 'squinting', /wugda-/ 'to prod', and /wawalja-/ 'to bail out'. Exx. of surface stop-stop clusters at boundaries, where the second element is an underlying continuent hardened by P-18, would include any noun ending in a stop (see §2.2, above) plus a nominal suffix like Ablative //w-a/, Periphrastic //w-a/, Locative //r-u/, or Similative //y-u/, which become (after another stop) //a-la/, //b-a/, //d-a/, and //j-i/, respectively. Exx. of underlying stop-stop clusters which are broken up by //u/-Epenthesis P-1 are any verb root beginning in stop (and eventual //i/-u/-//i/x/) involving a compound initial like //aug-a/-/tree, wood', /-lhaj-/ 'chopped wood', or //-hu-/ 'powerful'.

nasal-stop. The homorganic type //nh nd nd n j g/ is very common, especially since at boundaries underlying //n/ or archiphonemes //n// (along with one case of //n//) assimilate to a following stop's point of articulation. Aside from these, /n/ and /g/ occur as first elements with several following stops; //n/ is a little more restricted and does not occur within morphemes with following nonhomorganic coronal stop /dh d ɡ/, though if such a cluster arises at a boundary it may survive.

At compound/derivational boundaries, an underlying nasal-stop cluster will be broken up by //u/-Epenthesis which applies in this morphological environment before stem-initial stop regardless of the segments to the left of the boundary). Thus, once again, the underlying nasal-stop clusters are altered into something else, while surface nasal-stop clusters at boundaries are created secondarily by Hardening P-18. Thus //=dan=balhu-///→ //=dan=nu=balhu-//
Wound,
case forms as /angl/ 'baler shell', /anYbaj/ 'fighting', continuant; at such boundaries we can also get surface compounds could be elicited /wu-dhangunY-duj/ 'in the wind' (from //-ruj//). It is likely that surface at boundaries when a noun ending in nasal (see §2.7, above) is followed by a nominal suffix beginning in underlying paired continuant, at such boundaries we can also get surface //d/ or //~dh//, and finals can be any stop, except that /d and /g/ are conspicuously rare within //Lg// (or sometimes //Lj//), where //L// is /l/
and only //~dh// (perhaps //~dh=na//) 'to work').

By far the most common underlying stop-nasal cluster is the one consisting of a noun ending in a stop followed by a nominal suffix (§2.7, above), and it is not surprising that they also occur medially. Initials are /l/ (but not //lh//), and finals can be any stop, except that //d/ and //g/ in such clusters are indistinguishable phonetically (our convention is to write //d/ or //g/ on the basis of analogy to other forms of the same morphemes).

The most striking thing about liquid-stop clusters is that all more-or-less homorganic clusters are avoided except when they occur naturally at a boundary. This contrasts sharply with nasal-stop clusters, where the homorganic type is very productive in all positions. Thus //ld ld ld ld/ are conspicuously rare within morphemes, while //zd/ and //zd// are attested but uncommon in this position. On the other hand, the four relevant liquids are all attested both within morphemes and at boundaries with following //vb//, //vb//, //vb//, and //vb//; all are found at surface boundaries before //dh// and only //vb// are unattested before //dh// within a morpheme (perhaps because of an accidental gap or because of phonetic similarity to //gh//; if we include recent loans we can cite //~ardh// 'to work').

Because of //u/-Epenthesis, underlying liquid-stop clusters at boundaries are normally broken up. Surface liquid-stop clusters at boundaries are basically due to combinations of morphemes ending in //Lg// (or sometimes //Lg//). //Lg// is //l// at the start of a paired continuant which is hardened to a stop by Hardening P-18 (the //d// or //g// would then be deleted by Stop-Deletion P-29 or Palatal-Deletion P-26). Note that a morpheme ending merely in a liquid will not induce Hardening P-18 in a following morpheme (a stop is required).
This leaves us with the possible combination of a stop with following /l/, the liquids which do not become stops by P-18. Such clusters would probably be phonetically awkward in this language, since /l/ are virtually unattested as second elements in clusters; also, we have seen that homorganic liquid-stop clusters like /ld/ tend to be avoided, but with /n/ instead of /l/, as second element. Therefore, any cite of /-nag=/27/ is always /-nag=/ (the nasal is never stable as first segment in this ex., presumably because of the preceding /a/-vowel; some other cases of underlying /-/n/ are reduced to /n/ by P-25).

nasal-liquid. Liquids which have phonologically related stops, namely with /g/ become stops /gh/ after another nasal by Hardening P-18. For example, Locative suffix /-uj/ is always /-duj/ after a noun ending in nasal, so no surface nasal-nasal liquid cluster results. The same is true of compounds involving roots beginning in /lh r/* when preceded by a nasal, except that the very few verb roots beginning in tap /s/ are unaffected by preceding /n/ at the end of a pronominal prefix (the /n/ then gets deleted without a trace by P-30).

Ex.: /-yam=kharma-/*-yam=kharma-/*-P-18 and P-27/ 'to follow the voice of'.

The only remaining possibilities for surface nasal-liquid clusters are, therefore, cases of nasal plus /l/ /l/. However, these clusters are also unacceptable, and the nasal is deleted by P-30. Since /l/ does not occur in initial position in a relevant verb, our exx. involve root-initial /l/: /-marn=nulha-/*-marn=nulha-/*-P-18, and (group) to wade: /-meran=nalag-/*-meran=nalag-/*-P-18/ 'to raise one's hand'. Pronominal prefixes ending in /n/ likewise drop the nasal without trace before roots beginning with /l/ and (unhardened) /r/, as in /n=mer=nalag-/*-n=mer=nalag-/*-P-18/ 'I wade'.

There are, consequently, no surface nasal-nasal liquid clusters in the data, though perhaps one of the compounds just listed is occasionally pronounced with the nasal retained.

nasal-semivowel. This cluster-type is common in underlying representations at boundaries, but is always altered by Hardening P-18, which converts the semivowel into a stop in the usual way. Ex.: /-a-mun=yn=um/*-a-mun=jin=um/*-P-18 of the foot*. There are no surface nasal-semivowel clusters. (Laminoalveolar /r/, like similar consonants in languages like Spanish, is structurally a unit phoneme, not a cluster.)

In the derivatives of /l r/* plus following nasal are reasonably plentiful. As usual, /l/ does not occur as initial segment of a cluster. The four non-interdental liquids are attested before most of the nasals, but except for an odd case of /vn/ we do not find /n/ or /m/ after a liquid within a morpheme (when such clusters arise at a boundary, however, they are retained on the surface).

Within morphemes we cite these exx.: /-walmarra/*-crab sp., /gabara-wulga/*-saddle, /washurra/*-grass sp., /manj=irma/*-many lot, /gel=mara/*-cockatoo sp., /manj-yawa/*-roly-poly, /-dhalamir/*-s. 27
At boundaries, we note that Instrumental /-miri/ can follow nouns ending in /l 1 r y/. Among the other liquid-nasal clusters which can occur at boundaries we may mention that in /-hala-/, 'to see country', since /nh/ does not occur within morphemes. We should also note that surface liquid-nasal clusters may arise when a morpheme ending in /lh/ or /ln/ (where /l/ is /l 1 r/) is followed by a morpheme beginning with a nasal. Thus /-hala-/, just cited (above), could also (potentially) mean 'to see flame' from /-halm// 'flame' (instead of /-hal// 'country'), since the /kh// disappears by Nasal-Deletion P-30; another ex. is /hagabnul-miri// 'by means of dirt'.

**Liquid-semivowel.** Liquids /l 1 r y/ (but not /l/), can occur with following /w/ or /y/, which do not undergo Hardening P-18 in such clusters. It should be noted, though, that at boundaries a /w// (but not /w/), is often deleted by w-Deletion P-9 in some environments.

Attested clusters within morphemes are illustrated by /ml/w// 'gnat', /-lw// 'to sing (lotus)', /-rwa// 'on top', /maya// 'edible root sp.', /galya// 'to sit astride', /walya// 'male', /-arya// 'vegetable food', and /w// 'to pour on'. At boundaries, we can add Similative /-yl// §2.29 to a noun ending in a liquid, e.g., /a-lhal-yl// 'like a country'. Suffixes beginning with /y/ such as /-ugul// 'still', only, often show (optional) deletion of the semivowel by P-28 or P-9, but Dual contains its semivowel, hence /a-lhal-wa// 'two countries', and so forth. There are also a number of relevant compounds such as /-yur-a// '(float)er to run along', /-ay-yi// 'water to lie flat', and /-yulp-wagwa// 'to break off' (also attested once with semivowel dropped).

**Liquid-liquid.** Clusters with /l 1 r y/ plus /l/ are the most important ones; unattested */l/ may be an accidental gap. /y/ is also acceptable. Most other liquid-liquid clusters are difficult to elicit, e.g., because /y/ does not occur as initial segment of verb roots or suffixes. Underlying clusters of /l 1 r y/ plus /l/ occur in cases where Locative case suffix /-ruj/ follows a noun ending in a liquid, but here the /y// is deleted by r-Deletion P-26.

Within morphemes we may cite /a/ /-al// 'to be stuck in' (also /al//, /-al// 'to float', where /l// differs from simple /l/ by duration), /-urla// 'to sink, drown', /-alba// 'eucalypt sp.', and /-ruje// 'to be harmless'. Such clusters also occur at boundaries through /l// in this position is sometimes reduced to /l//, to judge by /-argurhla-yi// '(branch) to extend out' (with /-anul-/), if correctly transcribed. To the clusters above we may add /y// in /anar-lin// 'along side'. There is one apparent ex. where /y// is deleted after /l/ at a boundary; /-argurhla// 'to wait for', /d// /-hlan-mara// 'to take care of (country)', /dp// /-hlan-an-mara//. However, this may involve contamination, namely, the influence of /-an-ga// 'camp'. Surface /l// does occur at boundaries in other cases; /ndul// 'to urinate', /-hali-gara// 'arid land'.

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Within a morpheme, the only triple consonant clusters consist of a liquid followed by a homorganic nasal-stop cluster. The actually attested ones are the following:

- **lmb** /-Ihalmurra-/ 'to catch fire'
- **rmb** /-urmur-urmuru-/ 'hot'
- **rmb** /-ymurryba/ 'shellfish sp.'
- **lnd** /see 'to discuss', above, and 'to hunt', below
- **rmd** /-yarrdar/ 'waterless (land)
- **lmg** /-m,aln-galnha-/ 'to hunt (on land')
- **rmg** /-mirlg/ 'pond scum' (and a few others)

Some of the exx. involve frozen compounds or reduplications. For /lmb/ the first ex. etymologically related to /-Ihalmurra-/ 'flame' and the second item is a frozen reduplication, perhaps originally *-Ihalmurra-/dhy/- or the like (with thematic suffix). The ex. for /lmg/ is a similar frozen reduplication, and the ex. for /rmd/ is probably also an old reduplication of the type *
ants-nants or *-yarrdar (etymologically related to *-gar: 'burnt-out grassland'). However, there does not seem to be any way to explain away the /rmg/ cases, nor the single /rmb/ ex. (though the latter may be a loan from Amindilyakwa, as is usually the case with NA roots with a geminate, and none of the underlying forms already satisfy the constraints.

Other /CCG/ clusters can be generated at boundaries without much difficulty. At the end of §2.7, above, we listed /G/ clusters which can occur at the end of a noun stem, including /-lmg/, /-lnd/, and /-rmg/. If we add to this case suffix like /-m,aln-/g-, /-mirlg/, /-m,aln-/g-, or /-yarrdar/ m-, the suffix-initial continuant will become a stop by Hardening P-18, and the preceding stem-final /m/ will assimilate in point of articulation to this stop by P-27. This will produce the clusters /lmb/-/l, in-d/-, /lmg/-/l, in-d/-, /lmg/-/l, in-d/-, /rmd/-/r, mnd/-, /rmg/-/r, mnd/-, and /rmg/-/r, mnd/-.

For example, from /njumurr/ 'shelter' we get Persgressive /a,-wumurraw/-, Locative /a,-wumuruud/-, Ablative /a,-wumurra/-, and Relative /a,-wumuru/-.

Other possible stem-final clusters shown in §2.7 include /-lmg/-, /-lnd/-, and /-rmg/- (we disregard clusters involving liquid plus /g/, since the /g/ will disappear by P-29 before a suffix-initial consonant, and so cannot produce a triple cluster). Since /lmg/ and /lnd/ do not disappear before other continuants (except when geminated, and to some extent before coronales, see P-26 and -30), we can get some additional triple clusters at boundaries with case suffixes: /-lmg/-, /-lnd/-, /-rmg/-, /-rmd/-, /-lmg/-, /-lnd/-, /-rmg/-, and /-rmd/-.

If we add instrumental suffix /-mirl/ we can get underlying /-lmg/-, /-lnd/-, and /-rmg/-/Nasalisation P-22 would normally apply to the first two, so that /-lmg/- and /-lnd/- would converge on the surface as /-mirlg/-, while /-rmg/- would show up as /-mirlg/-.

### 2.10 Phonologically significant phoneme classes.

We here mention briefly some ways in which the phonological rules of Chapter 3, accounting for alternations in paradigms and derivations, provide evidence for phonologically (not just phonetically) operative classes of phonemes.

Not much can be said of vowels since there are not many relevant rules, especially if minor length alternations are omitted. A high vs. low opposition seems apparent in the environments for V-Truncation P-49 (§3.49), since /u/ diverge from /a/. However, in the more significant VV-Reduplication P-45 (§3.50), the most productive subrules seems to show a scalar dominance hierarchy /I > u > a/, with several local complications.

Most rules involve consonants, Hardening P-18 (§3.19) and some other rules such as Lenition P-16 (§3.17) point to the phonological significance of stops on the one hand and nasalised continuants on the other, as already noted in §2.5. The latter group is noteworthy since /n, m, r/ do not occur at the end of a nasal category (since /l/ are omitted). The category of stops is also needed in some other rules such as Su-Reduplication P-1 (§3.2), Initial Reduplication P-2 (§3.3), and Nasal-Assimilation P-27 (§3.28), and is obviously a major phonological class. A residual class of non-stops, namely nasals, liquids, and semivowels (e.g., *sonorants*), may be identified negatively in these same rules, and indeed one could combine this with vowels to give a class of *sonorants* and *vowels*.

However, a different division is needed in the conditioning environment for Hardening P-18 (§3.19). This rule requires that the final consonant of the preceding morpheme be a stop or nasal, and thus negatively identifies a residual class of *nonnasal sonorants* (plus vowels). There are also rules by which stops are converted into nasals or vice-versa (Nasalisation P-22 §3.23, Denasalisation P-23 §3.24, and rules deleting stops (Stop-Deletion P-29 §3.30), and rules deleting stops (Satellite-Deletion P-30 §3.1) are roughly parallel. The class of *nasals* is further supported as a phonological unit by Nasal-Assimilation P-27. (Velar-Insertion P-9 §3.1 provides additional evidence for a stop/nasal category since the inserted phoneme is either /n/ or /g/, but the details are messy.)

There is some evidence for breaking up "nonnasal sonorants" further into liquids and semivowels. Liquids /-l, r/ and /-g/ but not semivowels condition r-Deletion P-25 §3.30, which is missing from the list but this is presumably because it does not happen to occur in the relevant (morpheme-final) position for this rule. *Semivowels* are a class in Initial Semivowel-Insertion P-5 §3.6, and both /a/ and /g/ get dropped in roughly similar environments in the irrealis and the third items dealt with by Homorganic Semivowel-Deletion P-40 (§3.5). However, other rules apply to /l, r/ or /g/ in distinctive ways.

Point-of-articulation classes are relevant with reference to the output constraints dealt with above in this chapter, such as the absence of interdental in morpheme- or syllable-final position, and the absence of *jihim* in the same positions except for verbal root forms (§12.2) and a few marginal items. No special phonological rules are needed since the underlying forms already satisfy the constraints.

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**Note:** The text is a continuation of the previous section, focusing on phonology and phonemes, particularly the significance of consonants and vowels in phonological rules. It introduces the concept of phonologically significant classes of phonemes, emphasizing the role of stops and nasals, and touches on the distinction between *sonorants* and *vowels*. The text also discusses the importance of specific phonological rules in the environment of certain morphemes and stems. The presence of nasals and liquids is noted, as well as their interaction with other phonological processes like hardening and nasalisation. The section concludes with a mention of the significance of point-of-articulation classes in the output of phonological rules.
A class of what we will call palatal-type consonants including semivowel /j/ and labioalveolars /w/ /j/ is needed; see Palatal-Deletion F-26 (§3.27) which might be formally combined with yr-Contraction F-16 (§3.15), cf. also V-Fronting F-50 (§3.51).

Velar consonants /n g g/ can perhaps be considered a phonological class since they are maximally subject to point-of-articulation assimilation (sometimes leading to deletion) before another consonant (since labials do not normally occur as morpheme-final consonants, and since /m b/ do not occur as homorganic fricative members of intramorphemic consonant clusters, it is indeterminate whether we should expand this “velar” class to include labials, as in other languages where “noncoronal,” “grave,” or “peripheral” consonants behave as a unit.)

2.11 Intonation and pitch contour.

It is difficult to analyse pitch contours at word level, because word-level patterns are commonly distorted or overridden by higher-level intonational patterns; see §17.4, where we discuss how intonation is used for discourse purposes in a real text, and see also §3.40 for elongated interjections.

Although it is somewhat artificial to “factor out” such intonational patterns (extended high monotonies, etc.), we may try to indicate in general terms what “unmarked” pitch contours for words are like. Without pretending to understand the nuances of pitch contours perfectly, I offer the following general points:

a) long vowels attract high intonation and stress, especially when adjoining syllables have short vowels.
b) when the last few syllables of a word have short vowels, the penultimate attracts high pitch and a little stress, and a pattern of alternating high-pitched, stressed vowels in even-numbered syllables (right-to-left) may result.
c) in multisyllabic stems (especially nouns), the stem may be organised into “foot” units of two to three syllables based on apparent reduplicative segments, with each such unit having high pitch and some stress on the initial syllable.

We may illustrate with some exx. (recall that all pitch transcriptions, using “/” for high pitch with light stress, and occasionally for intermediate stress/pitch “context-free” transcriptions which may be overridden by intonational patterns).

/ná-an-ní/ ‘I saw it’
/ná-an-u-ři/ ‘I eat it’
/tá-an-ní/ ‘I saw it’
/ág-aří/ ‘We saw them’
/ág-aří/ ‘honey’
/á-lag-ú-mu/ ‘to honey’
/a-lag-ú-ú-mú/ ‘of honey’
/wú-=yá-čí/ ‘they go’
/µá-rú-yá-újú/ ‘whistling eagle’

/á-ná-bání/ ‘grass sp.’ three 2-syllable feet
/ág-aří-úmí-an/ ‘bee sp.’
/ág-aří-úmí-an/ ‘hawk sp.’ two 3-syllable feet
/ambú-yú-újú/ ‘grass sp.’

When a monosyllabic suffix is added to one of the last few noun stems shown above, only the pitch/stress of the final foot is shifted to the word-penultimate syllable; /ná-ág-aří-úmí-an-ŋuy-/ ‘to the bees’.

When there is no obvious reduplication or other internal structure in a stem, the usual preference seems to be in favour of 2-syllable feet (rather than 3-syllable). In the last ex., above, the pitch contour is due to identification of reduplicative patterning; note that /b/ after nasal may be underlying /w/ after Hardening F-18. The “reduplication” in such situations is often unrelated to the regular, productive reduplication rules (F-2, F-3). The latter never give reduplicative segments more than two syllables, and never have more than one vowel quality in the reduplicative segment (contrasting tri-syllabic “reduplication” in the final two exx. above, and distinct vowel qualities in the bimisyllabic reduplicative segments in the two exx. preceding them).

Word-final consonant clusters do not greatly affect pitch/stress patterns, though they may give a final syllable slightly more pitch and stress than it would otherwise acquire; /úmúrmuí/ ‘stringybark shelter’, /wúmg⁻la/ ‘painting torso’. In nonfinal syllables, a syllable closed with a consonant or consonant cluster (not counting the consonant opening the following syllable) may have some extra pitch/stress, but this is not very consistent; /múrmuí/ ‘pont scum’, Allative-Dative /a-wírm⁻gí-ŋuy/ or /a-wírm⁻gí-ŋuy/ were consonant clusters, notably homorganic nasal-stop clusters like /mβ/ appear to syllabify with the following (not preceding) vowel so that the nasal component cannot really be said to close the preceding syllable for purposes of this (occasional) effect on pitch/stress contours.

2.12 /oː/.

The /oː/ vowel shown in the list of vowel segments (§2.1) is not a basic phoneme of this language. Instead, it represents underlying /au/ in certain combinations involving Amphoric demonstrative root /-u-// (chapter 7), principally that involving the punctual form /a-// of a�� the class prefix of the AWA noun class (§4.7). It is also sometimes used in the texts for the rounded trail-off vocalism in the elongated interjection pronunciation of some words after phonological rule F-39 applies.

In the demonstrative combinations just mentioned, the actual phonetic realisation of /au/ ranges from something like [aw] to [ɔw] or [ɔw], and does not usually have the steady-state quality suggested by the transcription. We generally normalise transcriptions, as in /oː-‘ba-ní/ ‘that one[AWA class]’, rather than aiming at a close phonetic transcription for each individual occurrence.
Chapter 3
Phonological rules

3.1 General.

In this chapter we are concerned with alternations in the surface forms of morphemes in different positions. Since there is no overriding polemical orientation of this chapter, I will present the data in fairly conventional generative form, recognising a large number of 'rules' or 'processes' which convert idealised underlying forms into surface forms. I will, however, informally point out alternative ways of identifying and formulating the individual rules and will outline later some ways of reconceptualising them as surface-to-surface transformations.

I do not use a rigid format for writing the rules, and in particular I do not always use feature matrices, preferring simpler formulations like "a → ı." However, terms like 'stop', 'semivowel', and 'apicoalveolar' are used frequently when there is a generalisation to be made.

Rules are numbered in order of presentation here, which does not correspond necessarily to order of application in the generative format. The order of presentation here is partly topical. Order of application is discussed at the end of the chapter (§3.52, §3.53).

Readers who are not primarily interested in phonology may wish to skim over this chapter. Some particularly important rules which such readers should become familiar with are P-1, P-18, and P-49.

Some very minor alternations are treated in connection with the appropriate morphology section in other chapters. However, the present chapter discusses the great majority of attested alternations.

3.2 e-u-Epenthesis P-l.

A meaningless morpheme /-mʊ-/ is automatically inserted between a prefix P and a following morpheme (prefix or stem) Q under certain conditions. Q must begin with a stop /b dh d j g/ at the (early) stage when the rule applies. P can be a derivational prefix or compound initial of any phonological shape; it can also be an inflectional prefix but in this event must be terminated by a consonant. The rule may apply more than once within a word.

§3.1, §3.2
We exemplify with the verb /-bura-/, 'to sit', as our stem Q. Most inflectional prefixes (marking pronominal subject) end in a vowel and thus do not cause -nunu-Epenthesis: /nulu-ngu-buri-/) 'I sat'. However, a handful of these prefixes end in a consonant, namely \(/\), as in /13ng\(), and here the epenthesis does apply: \(/\) /nulu-ngu-buri-/) 'I was going to sit'. (Note that the prefix-final \(/\) is deleted by a later rule.)

When a derivational prefix or compounding initial intervenes between the inflectional prefix and the stem, epenthesis always applies to stop-initial roots like /zhura-/, as in /-anji-q=angari-/) 'to sit with (someone)' (Comitative /-anji-/)'.

With noun stems, epenthesis does not apply when the only prefix is an inflectional noun-class prefix: /gulum\/) 'belly' takes prefixed forms /mana-gulum\() and /nafa-gulum\() without /-nunu-. However, some nominal constructions involve an intervening derivational noun-class prefix, and these all happen to end in a consonantal archiphoneme which we represent as \(/\) (the inflectional noun-class prefixes end in vowels). Whether because of this \(/\) or because of the difference between derivational and inflectional prefixes, stems like /gulum\() require /-nunu-/) in the derivational forms, e.g., /mana-ma-et-gulum\() /mana-ma-nunu-gulum\() 'belly (of certain objects)'. Compounds in which the second element is a noun are not very numerous, but when they do occur /-nunu-/) is added if the second element begins in a stop /gulu-/) 'pubic hair' from /-jy/) 'fur, body hair' (see §4.7, §6.5).

The epenthesis rule does not apply in pronominal or demonstrative forms, but this is presumably due to the fact that no phonologically appropriate combinations occur in these morphological classes. We therefore formulate the rule as follows.

\[(P-1) \quad n^\#u\text{-}Epenthesis \quad \text{where } P \text{ is an inflectional (pronominal) prefix ending in a consonant, or a derivational prefix or compounding initial (of any form), and } Q \text{ is a root or a pre-root derivational/compounding element beginning in a stop.} \]

There are a few exceptions, perhaps reflecting the fact that this is clearly an 'unnatural', highly morphologised rule. Consider, for example, the clan name /nun-garan\()/ and Gentilio prefix /mu-/. With \(n^\#u\text{-}Epenthesis we should finally end up with /mu-nunu-garan\()/, but here the epenthesis clearly does not apply.

This, and a scattering of similar examples, can be analysed formally as exceptions to P-1, but there is an alternative: they could be considered instances where a stem-initial stop is lenited (e.g., /g+/) /m/) as derivational/compounding final, so that \(n^\#u\text{-Epenthesis cannot apply a stop rule then hardens the continuant back to stop articulation (/g+/) /g/ in this case). In fact, the lenition and hardening rules are independently motivated (see P-16 and P-18, also P-19), and there are some verb forms where this is clearly a legitimate excuse for nonapplication of P-1. In other cases, like /nu-nunu-garan\()/, there is no independent evidence that these particular stems are subject to the lenition rule (which is lexically restricted).

There are also a tiny handful of noun stems which appear to take /-nunu-/ in forms with derivational/compounding initial but which begin in consonants other than stops; /-nunu-/ 'ants', derivational noun-class forms like /nafa-nunu-gulmun\() 'storage, bits and pieces' (prefix /-ma-/). Such forms are clearly isolated and may involve semantic shifts which make synchronic connections with the simple stems dubious.

The exceptions are few in contrast to the great number of stems for which the rule works neatly. How can we explain the existence of such an unusual rule, in which a morpheme of distinctive phonological shape (not merely a schwa or the like) functions as an epenthetic element?

In a number of cases \(n^\#u\text{-}Epenthesis permits retention on the surface of important consonantal oppositions threatened with loss due to other rules. Specifically, Hardening P-18 converts stem-initial continuant \(/g\) to stops /g/ by d/ when preceded by a stop or nasal. Were it not for \(n^\#u\text{-}Epenthesis, stem-initial oppositions like that seen in /-jy-/) /-y-/) 'to transport' would be neutralised on the surface when preceded by a prefix (inflectional or derivational) or compound initial ending in a stop or nasal. In fact, however, /-juga-/) /-yuga-/) 'to push' and /-gula-/) /-nunu-/) 'to transport' would be neutralised on the surface when preceded by a prefix (inflectional or derivational) or compound initial ending in a stop or nasal. In fact, however, /-juga-/) /-yuga-/) will always become /-nunu-/) in such environments (plus some others where homophony is maintained). This functional explanation accounts for the otherwise strange fact that /-nunu-/) is inserted only before preceding stops, and accounts (in part) for further details of the rule.

By etymology, /-nunu-/) may be traceable to *-gu-, a morpheme found at the end of some complex pronominal-prefix combinations in near and intermediate protolanguages. Originally a dative marker, then a postconsonantal oblique (accusative/dative) allomorph with a semi-epenthetic character, it occurs in various functions in near attested languages (Mara -gu- in pronominal prefixes, Ngandi -gu- and Warralang -nu- in similar functions). The alternation of \(n^\#u\text{-}Epenthesis in these cognates is irregular, but the innovative nasal form may be due to cluster assimilation in such forms as \(n^\#an-gu- (/n^\#an-nu-/)\).

3.3 Initial Reduplication P-2.

We are here concerned with the primary reduplication rule, applying either at the beginning of the noun or verb root or, more regularly, at the beginning of the first morpheme following inflectional prefixes. This rule is most common with verbs (indicating repetition or prolongation) but occurs with some nouns (plural). Some roots, often having both verbal and nominal forms and with generally adjectival-like meaning, are often reduplicated regardless of aspect or plurality. Details are covered in §4.14, §4.15, §13.5, §14.2-5. Many roots (flora-fauna nouns, for example) have no reduplications. A distinct reduplication affecting demonstrative pronouns is dealt with in the following section.
characteristically immediately after the inflectional (pronominal) prefix, and the segment reduplicated may therefore be the root or a preceding derivational/compounding element (except that epenthetic /-n/- from P-1 may not be at the beginning of the reduplication). In the case of the bisyllabic -Rdp- type (see below), the input segment may involve an internal morpheme-boundary. For example, in the following /CV-CV/ input /-CV=-CV-/, where /-CV=-CV-/ is a reduplicated component or compounding element, the reduplication may be /CV-CV=CV=-CV=-CV-/ (the initial /CV/- representing an inflectional prefix not considered in the reduplication). Similarly, if the input is /CV-WC=CV-V/ with monosyllabic verb root /-CV-V/- and a following inflectional suffix, the latter may be included in the reduplication if the bisyllabic -Rdp- type is found, hence /CV-WC=CV-V-CV-V/-.

In some cases, reduplication applies at the beginning of the verb root and disregards earlier derivational/compounding elements; there are also a few cases (mostly in narrative/song style involving a specific set of stems) where both the root and an earlier derivational/compounding element are reduplicated. These types are lexically restricted. See "internal" and "double" reduplication (§3.4).

The only suffixes which can constitute input are derivational and inflectional verbal suffixes (mainly marking tense/aspect). Other suffixes (including all nominal suffixes) are not involved in the reduplication even when the preceding root is monosyllabic.

 Basically, the form taken by the -Rdp- segment is as follows:

- /CV/- if the input begins with a stop;
- /CV=CV/- if the input begins with another consonant;
- /CV-CV/- if the input begins with a vowel

Thus /"bura-"/ 'to reach, find' as /"hanf=hanfarm/-‘reach, find’ as /"ma:jga-/-‘to make’ as /"lhalha=lhalha-/-‘to fall out’, and /"la=la-/-‘to tear’. Expected reduplications /"bura=buraj-/; /"lhalha=lhalha-/-; /"ma:jga=ma:jgaj-/; /"la=la-/-; /"lhalha=lhalha-/- with four consecutive identical /CV/ sequences are in fact simplified to /"ma=ma:jga-/-; /"la=la=la-/-; /"ma=ma=ma:jgaj-/. However, the form /"ma=ni/-; /"lhalha=lhalha-/-; /"ma=ma=ma:jgaj-/ to stand’ and /"yi/-‘to sleep’. We now consider cases of /-y/ reduplication for stems which should give bisyllabic -Rdp- by the rules given above. Essentially, what is going on here is that bisyllabic reduplications which would involve several identical or very similar syllables are simplified. For example, there are some roots which already happen to have /CV/ and /CV/ identical (whether or not the vowels are also identical), as a special case of the adjectival noun /"mama ‘empty’ and the verb /"mama ‘to hear’. Expected reduplications /"ma=ma:jga-/-; /"ma=ma=ma:jgaj-/. Instead, if the input is /-CV=jga-/- or compounding element, the reduplication may be /"ma=ma:jga-/- and if valid this clearly shows lexically specific even though a phonological basis is detectable. (We could attempt to avoid this, suggesting that /"ma=ni/- behaves differently because its two vowels are different, or because of the internal morpheme boundary, but we do not have a large range of forms which might permit us to identify clearcut patterns of this type. A form /"lhalha=lhalha-/-, rdp. of /"lhalha=la-/- ‘to fall out’, was obtained in an elicitation session, and if valid this clearly shows lexically based variation.)

There are a few other cases of /-y/- for expected bisyllabic -Rdp-. These include /"guj=guj=/ ‘to wake’, rdp. /"lu=lu:/ where /CV/ and /CV/ are distinct but in both laterals, and two important verbs beginning in /CV/-, /"ma=ma:jga-/- ‘to make’ and rdp. /"ma=ma=ma:jgaj-/. (Vowel length in root may be a factor here, but many other verbs with long vowel in first syllable behave normally in reduplication.)

With monosyllabic input, not surprisingly we are limited to a monosyllabic -Rdp-. There are not many inputs that are this short. For nouns I can cite only /"yilg/ ‘silly’, rdp. /"yi-yilg/. For verbs, we do have some monosyllabic roots which can take inflectional suffixes of the shape /CV/=CV/- and /CV=CIVI-C2V2/- before the input begins with a stop, otherwise bisyllabic type.

Examples of the first type are a handful of Nonpast2 verb forms from /CV=/, with suffix /-/ or /-/- being absorbed by the root vowel with P-49. Thus /"ni:/ ‘will not see’ becomes /"ni=ni:/ ‘will never see’, and /"yu:/ ‘will not give’ forms /"yu=yu:/.

Examples of the second type involve Nonpast1 forms in /-y/-, and Past2 forms with /-y/-, added to monosyllabic verbs in certain inflectional classes. Examples are /"ma=-/ ‘will see’ or /"ma=ma=ma:jga-/- ‘to stand’, rdp. /"ma=ma=ma:jgaj-/. /"ma=-/ ‘will see’ or /"ma=ma=ma:jga-/- ‘to stand’, rdp. /"ma=ma=ma:jgaj-/.

I should add that since actual vowel-length contexts do not occur in these contexts, phonetic vowel length is highly subject to intonational skewing, these transcriptions of length are impressionistic. Since Nonpast1 and Nonpast2 are infrequently reduplicated, the only common forms are the Past2 ones, and here the suffix /-y/- occurs only with two monosyllabic roots, /"la=/- ‘to stand’ and /"yi=/- ‘to sleep’.

As I hear them, the rdp. forms from these inputs are as follows:

/"CV=/ becomes /"CV=CV=/ (morpheme boundary omitted)
/"CV=CV=/
/"CV=CV=/ (§3.3)

Examples of the first type are a handful of Nonpast2 verb forms from /"CV=/, with suffix /-/ or /-/- being absorbed by the root vowel with P-49. Thus /"ni:/ ‘will not see’ becomes /"ni=ni:/ ‘will never see’, and /"yu:/ ‘will not give’ forms /"yu=yu:/.

Examples of the second type involve Nonpast1 forms in /-y/-, and Past2 forms with /-y/-, added to monosyllabic verbs in certain inflectional classes. Examples are /"ma=-/ ‘will see’ or /"ma=ma=ma:jga-/- ‘to stand’, rdp. /"ma=ma=ma:jgaj-/.
as separate roots. Thus /=wululhda/- 'to cut, sever' (=*-gulk-du-)
and /=wulgulguldha/- 'to cut up (wood, etc.)' (=*-gulk-gulk-du-)
are now essentially independent of each other but were once related as
simplex reduplications (the reconstructed forms still occur as
simplex roots in Ngandi). They now each have their own synchrone reduplication
sequence, respectively, and note

that the latter shows full bisyllabic reduplication.

We have discussed vowel length in the monosyllabic-root
reduplications (preceding page, top), but not for the monosyllabic-root
reduplications. When the reduplicative segment itself is monosyllabic, its own
vowel length it has in the simplex: /=lu:luha/- from /=lu:luha/-
to wade'/; /=bulu:bulu/- from /=bulu/- 'to push'. When the -Rdp- segment is bisyllabic, both
vowels are always short, and if the root has /V/ long this
vowel is clearly short in all cases, while the root retains the same
vowel length it has in the simplex: /=lu:lu:lha/- from /=lu:lha-/
to 'wade'; /=bu:bu:la-/ from /wu- 
'bush'.

When the reduplicative segment itself is monosyllabic, its own
reduplications (preceding page, top), but not for the nonmono
vowel the same pattern can be presumed, but later rules
that the latter shows full bisyllabic reduplication.

vowel is clearly short in all cases, while the root retains the same
vowel length it has in the simplex: /=lu:lu:lha/- from /=lu:lha-/
to 'wade'; /=bu:bu:la-/ from /wu-
'bush'.

When the root starts with a vowel the same pattern can be presumed, but later rules
that the latter shows full bisyllabic reduplication.

vowel is clearly short in all cases, while the root retains the same
vowel length it has in the simplex: /=lu:lu:lha/- from /=lu:lha-/
to 'wade'; /=bu:bu:la-/ from /wu-
'bush'.

When the root starts with a vowel the same pattern can be presumed, but later rules
that the latter shows full bisyllabic reduplication.
The initial semivowel is deleted when followed on the surface by a short homorganic vowel. Inflected forms in which the surface root vowel has been changed by one rule or other are unaffected; in addition, long-vowel forms are not affected.

The basic inflected forms of */w2u-/ 'to hit, kill' can be represented as Past2 */w2gi-nifi-/; Nonpast2 */w2i-/ni-; Past2 */w2i-ni-/ni-; Nonpast2 */w2i-/ni-. It appears that */w2u-/ is the most basic form but that when the /u/ is not lengthened or altered in quality the /w/ is deleted (Nonpast2 and Evitative). See Table 11-6, M4 type.

The deletion of the /wu/ is manifested on the surface in various ways. Specifically, VV-Contraction P-40 commonly applies to the output, since the inflected forms shown above are usually preceded by prefixes ending in a vowel: */waru:/-ni-/'/t kill them', where without P-4 we would have gotten output */w2ar=ma-/ma-. Similarly, Pronominal d-Inversion P-20 applies only to vowel-initial verb stems when preceded by pronominal prefixes ending in /v/. And P-20 does apply here: */n2ar=ma-/ma-/*w2ar=ma-/ma-. Without P-4 we would have gotten incorrect */t=ma-/ma-/*.'I will kill it (ANA).' Without P-4 we would have gotten incorrect */w2=ma-/ma-/*.'I will kill it (ANA).'
In forms not involving a compound initial or a derivational prefix, 'to give' has forms pointing to /yiy/-, with the semivowel deleted when the vowel is surface /i/, hence Past1 /yiy-ni/, Past2 */wla-ni/, Nonpast */yiy-/, etc. We will use /yiy/- as the citation form and presumed underlying form, with P-4 deleting the /i/- in the relevant forms.

The deletion rule, however, does not apply to Reciprocal form /=yi-nYji-/ 'to give to each other, to share'. Thus note absence of VV-Contraction P-49 in /wur=yi-nYji-na/ 'they are sharing' versus application of this rule in nonreciprocal /na=yi-nYji-na// (P-49) /=yi-nYji-/ 'I gave (it) to him'.

Summing up the verbal exx., we can say that /yiy/- and /wla/- are deleted in basic inflected forms of 'to give' and 'to hit, kill' when followed by a short homorganic vowel; forms of 'to give' with compound initial or derivational prefix appear to show some variation between /=wlu-/ and /=wul/, but under different conditions (which are, moreover, partly indeterminate due to alternative base forms for some combinations).

We also mention here a few instances of similar deletions of root-initial semivowels in noun morphology. As in the case of the verbs, deletion is sharply restricted lexically. The nominal exx. involve forms of the moiety term /yirija/.

The unprefixd form /yirija/ is ambiguous since underlying //yirija/ or //irija/ would turn out like this (see P-5, below). As predicate adjectival noun with intransitive pronominal prefixes, the form is clearly /yirija/, as in /=wla=yirija/ 'I am Yirija' and /=w2ara=yirija/ 'He is Yirija' (i.e., of Yirija moiety). The same is true of most nominal forms with (inflectional) noun-class prefixes: /na=yirija/ 'Yirija man', /mana=yirija/ (object of MANA noun class). However, in forms with F or N class prefix /nara/- we get /=w2ara-yirija/ (human Fs) and /=w2ara-irija/ (nonhuman of class NARA). These point to /=w2ara-irija/ (yn)' as a surface presurface form since /=w2ara/- is the normal allomorph for this noun class prefix when the following stem is vowel-initial, but not otherwise. (See V-Truncation P-49.)

The other ex. of this is the unusual human Fl form /man-irija/ 'persons of Yirija moiety (collective)'. Since the prefix here elsewhere shows up as //man//, we assume that the /i/- is due to de-Insertion P-21. The root must have presurface form //irija/ for this rule to apply, and in any event //yirija/ would produce the incorrect form */ma-nirija/ or */man-irija/.

Our final minor ex. of this semivowel-deletion rule involves a root /=w2ula/- which shows up in verbal and nominal forms based on the sense 'two', and some closely related numeral stems. In such verbal forms as /=w2ula-ga/- 'to do (something) twice to (someone)' the inflected forms are consistent with presence of /=w2ula/- in all forms. As a noun, the usual form is /=w2ula-/ with Dual suffix, being the usual numeral for 'two'. This can occur with the usual inflectional noun class prefixes, as in /na-wula-war, two men/). However, more characteristically we get predicate-adjectival forms like /w2ula-wa:/ 'they are two' (even when English uses a simple attributive numeral). In the MANA class form /=w2ula-wa:/ we clearly have VV-Contraction P-49 involving the prefix /=w2ula/- and the root, which must therefore have a presurface form /=w2ula-wa:/.

The same alternations occur with /w2al-wa:/ 'three' and /=w2al-wula/- 'four', which are etymologically related to /=w2ula/- 'two' and still probably closely associated with it synchronically (though not derived from it by otherwise established mechanisms).

The Homorganic Semivowel-Deletion rule P-4 must therefore be formulated as a loose grouping of distinct subrules which share only the basic property that a following homorganic short vowel is required for the deletion to occur.

(P-4) Homorganic Semivowel-Deletion
a. S → //X---v-
where S is a semivowel, V a short vowel homorganic to the semivowel, X a pronominal prefix (or pronominal prefix plus -Rdp-), and Y an inflectional suffix (in particular, not Reciprocal //n2-nYji//);
the rule applies only to /=yi/- 'to hit, kill' and /=w2/- 'to give'.

b. w → //X---v-
where X is a compound initial or derivational prefix (but not -Rdp-) ending in /i/ and the root is /=w2u/- 'to give' (V in this case does not have to be homorganic at least on the surface; the rule can also be assumed to apply when X ends in a stop or nonvelar nasal, but resulting surface forms happen to be identical to those produced by derivations not involving P-4).

c. y → //X---i
in forms of moiety term /yirija/, where X is Fl prefix /man/- or Fl or N class prefix /nara/.

d. w → //X---u
where X is /=w2u/- or /=w2u/- (nonhuman intransitive pronominal prefix); applies only to predicate-adjectival forms of /=w2ula/- 'two', /=w2ala-bas/ 'three', and /=w2ula/- 'four'.

As our discussion has implied, there are many stems beginning in /yi/ or /=w2u/- which do not undergo deletion by P-4 (and which therefore, for example, become /=yi/ and either /=wu/- or /=w2u/- after stop or nasal). Exx. are /yirunbti/ 'barramundi fish', /=w2ula/- 'to cut, sever', and /=w2ul/- 'human, person'. There are also some suffixes like /=w2al/- 'still, only' and /=w2al/- (Relative) with stable semivowel except for optional omission in some environments by low-level rule P-26. There are some roots and prefixes which begin in /=l/ or /=u/ with no evidence of underlying
initial semivowel: /in'gura/ 'Anindilyakwa (tribe)', /e1jga/- 'to take (dog) hunting', opds. with /-i/- 'word, truth', derived nouns with derivational ANA class prefix /-uG-. While these will 'grow' an initial semivowel when word-initial by P-5, in all noninitial forms they behave like vowel-initial morphemes.

3.6 Initial Semivowel-Insertion P-5.

There are a number of morphemes which begin in presurface forms with /u/ or /I/, whether this is the underlying initial segment or whether an underlying initial semivowel has been deleted before it (see preceding section). When such morphemes occur in word-initial position, they are not distinguishable from otherwise identical morphemes beginning in /yi/ or /wu/, and the most common pronunciation in either case is with the semivowel present on the surface. We therefore need a low-level rule changing /yi/ to /wu/ and //u// to //wu// word-initially. There is no rule for word-initial /a/, which can occur on the surface. Length of the vowel is not relevant to the insertion of the semivowel.

Exx. are //wu-ma-na// 'it is hitting it' from //wu-ma-na// (presurface form, see preceding section); //wu-dhangun// 'wind, breeze' from //wu-dhangunum//; //yu'gura/ 'Anindilyakwa (tribe) person' from //in'gura//. In these cases the underlying form without semivowel is based on morphophonemic behaviour in forms with prefixes (see discussions of P-2, P-4, P-15, P-20, P-21, P-49).

Sporadically and unreliable, some of these same roots can grow the semivowel in medial postvocalic position. This does not seem to be possible with verbs, but does occur with nouns, especially when preceded by ANA, noun class prefix /a/- and (less often) with ANA, prefix /ana/-, the exx. generally involving following /-uG- derivational noun class prefix. Thus /a-wu-dhangun// and //ana-wu-dhangunum/// 'wind' (in different syntactic environments) in addition to word-initial /wu-dhangun// (see preceding paragraph).

For /ana/ the more common output is //an-wu-dhangun// (see P-46). For /a/- there is no clearly established alternative output, but the /a/- seems to be omitted fairly often where we would expect it. It is fair to conclude that the type /a-wu-dhangun// does occur but that speakers are not very comfortable with it.

(P-5) Initial Semivowel-Insertion

a. \[\begin{array}{c} y \\ i \\ u(i) \\ l(i) \end{array}\] 

b. \[\begin{array}{c} y \\ i \\ x \\ u(i) \\ l(i) \end{array}\]

where # is a word boundary and X is an ANA class prefix (/a/-, /ana/-); the rule is obligatory in part (a) but sporadic in (b).

3.7 wI-Insertion P-6.

The verb root /=a:yu-/ 'to cut up' behaves like a vowel-initial root when immediately preceded by a pronominal (inflectional) prefix and thus undergoes such rules as VV-Contraction P-49, as in

\[\begin{array}{c} y \\ a \\ a:yu/\end{array}\]

The presurface form of this root appears to be //=a:yu-// in compounds and forms with derivational prefixes, for example being the cpd. /-wu-ma-na// = /wu-ma-na// 'wind, breeze'.

These forms require a presurface semivowel to prevent VV-Contraction P-49, and /yi/ seems to be the best candidate since it optionally becomes /yi/ after //yi// vowel. Deletion of the semivowel after a liquid, as in //an-jabal// 'to cut up amput' (or pectoral fin), is also regular. (See P-9 and P-10.) In some contexts it is not possible to tell whether /yi/ has been inserted in //=a:yu-//, since an output //=a:yu-// will result either way (by Hardening P-18 or //yi// to //y//, by Velar-Insertion P-8 inserting //y//). The doubtful context here is position following stop or nasal consonant. There is circumstantial evidence that /yi/ is inserted in all cases of //=a:yu-// following compound initial or derivational prefix; namely, after velar nasal we get //=a:yu-// presumably by Hardening P-18, while a surface form //=a:yu// should be the favoured result if Velar-Insertion P-8 were the rule involved (hence the input should be //=a:yu// instead of //=a:yu//). An ex. is //=uml-fru:yu-// 'to cut the elbow of (someone)'.

(P-6) wI-Insertion

\[\begin{array}{c} y \\ a \\ x \end{array}\]

where X is a compound initial or derivational (i.e., nonpronominal) prefix, and where the root is /=a:yu-/ 'to cut up'.

Other verb roots beginning with long /a/ are /=aru/- 'to abandon', /=angamba/- 'to roast', and /=a:gi/- 'to return' but no relevant combinations occur. P-6 may affect /a:di/- 'bad' in some forms.

3.8 wI-Insertion P-7.

The alternations discussed in this section, though superficially resembling those seen in the preceding section, are sufficiently distinct in detail to justify separate treatment.

The NA and NARA nonhuman noun classes are marked, in what I call the Continuous series, by prefixes /na/- and /nara/-, respectively. In the Punctual series the two are merged as //na/- (P-7). Different in these classes begin with short //a//. After //na/- and /nara/- the usual VV-Contraction rule P-49 applies and we get such forms as //na-aragu// = /na-aragu// 'the young male dugong' and //nara-araga/- = /nara-araga/- 'the young goanna'. However, with prefix /yi/- VV-Contraction does not occur (since the prefix vowel is long). For some speakers the outputs are /yi/-yu=ruga/ and /yi:yagara/, with surface /y/. However, other speakers (especially younger and middle-aged ones) prefer /yi:yagara/ and /yi:yagara/, with surface /y/, in all such forms. For the /wI/ dialect, a rule inserting the /y/ is needed, and even speakers of the /y/ dialect are compatible with this analysis, since /yi/- usually becomes surface /y/ in the environment /i_a/ (see P-9 and P-10).

For some (apparently most) speakers of the /wI/ dialect, in the one relevant case where the noun root begins with long /a/, we get //yi-ya:mun// 'common fly' from
is a compounding initial or
must be a compounding initial or
da:m Y /
for certain speakers who do say /yi-wa:m Y/

(P-7) w-Insertion (for some speakers, mostly young)

\[ g \rightarrow w \quad /y1/-a \]

where /y1/- is the noun class prefix, and (for most speakers) the /a/ is short

Reasons for dissociating this rule from P-6 are that the latter applies only in a long-vowel form (with /a/), while P-7 applies for most speakers only in short-vowel forms, and that P-6 applies only to a root preceded by a derivational prefix or compound initial while P-7 applies after an inflectional prefix.

P-7 is designed to apply to forms involving nouns which clearly begin with /a/, or for which there is no specific evidence that there is any underlying segment (such as a semivowel) preceding the /a/.

It should be noted that there are some other stems which appear to begin with underlying /w,a/, which lose its /w/ in some surface environments (including word-initial position). For these roots (which normally cannot undergo WV-Contraction P-49, for example) an alternation of the type word-initial /a.../ vs. prefixed /y1-wa.../ need not be due to P-7. The latter rule applies to all nouns beginning in /a/ which occur after /y1/-, including those which clearly have underlying initial /w/ instead of /wa/, such as /alad/-/bad/.

3.9 Velar-Insertion P-8.

This rule inserts /g/, and in a few instances /n g/, at the beginning of a morpheme normally beginning with vowel, after a morpheme which ends in a stop or nasal. It should be noted that another rule P-20, Pronominal 1-Insertion, is a competing rule which applies in a similar (though distinct) environment. P-20 applies when the preceding morpheme is a pronominal prefix ending in /n/ or /n g/; after /n g/ there is a variant P-21 applying to the PI moiety term /ma:di/-irja/. This leaves Velar-Insertion P-8 to apply in all remaining combinations where the preceding morpheme is a derivational prefix or compound initial ending in a stop or nasal.

For example, consider /=a:ba/- 'to jump'. With pronominal prefix /=a:ba/-, we get /=a:ba-ma:di/-b/- by P-20, which inserts /d/ and also lengthens the root-initial vowel. On the other hand, with derivational prefix /=a:ba/-, 'Multiple' (§10.4) we get /=a:ba-ma:di/-b/- or /=a:ba-ma:-gab/-b/. It is suggested that Velar-Insertion P-8 is involved in the latter forms.

The morpheme before which the velar consonant is inserted can begin with /a/ or /a/, /a/-, or /a/. There are no exx. involving /a/ or /a/-, but this is simply because the relevant underlying combinations do not occur. Similarly, the insertion normally applies at the beginning of a root or a preceding derivational/compounding element, not at the root-suffix boundary, but again this appears to be due to nonoccurrence of relevant underlying combinations. Exx. involving Benefactive /=a:/- (where /g/ is a stop archiphoneme) are /=a:ga/- 'to jump for', /=a:garu/- 'to leave for', and /=a:gin ga/- 'to complete' from /=a:ba/-, /=a:ru/-, and /=a:in ga/-, Here the /g/ triggers Velar-Insertion (then disappears by Stop-Deletion P-29).

§3.8, §3.9

P-7

The velar consonant which gets inserted is always /g/ when the preceding morpheme ends in a stop (whether or not the stop itself subsequently disappears). Exx. are /ni:-ga:ja/- 'to get (name) wrong' from /=a:jaga/- 'to miss', and /hama-n-galad/-/bad-tasting/' from /alad/-/bad/.

With a preceding morpheme ending in a nasal, the situation is more complex. Available exx. involving /g/ and /n g/ show insertion of /g/ in all cases; available exx. involving /n g/ and /g/ show insertion of /n g/ in most cases but sometimes of /g/ in the case of prefixed /=a:ba/- the insertion has no surface effect because of subsequent simplification by Geminate-Contraction P-31). Exx. with /n g/ following /a/- are /=alama-n-gad-/ 'to have knees sticking out of water' from /u-gad-/ 'to go up on shore'; /mun-n-galad/-/having bad foot/feet' from /alad/-/bad/; and perhaps /=mu:gala/- 'to be decorated with raman feathers' if derived from /=alad/- Exx. involving (vacuous) insertion of /n g/, subsequently deleted, after /n g/ are: /=ma:na=n-gala/- 'to shake hand' from /=ana=/ 'shake'; and /=u-galad/-/badly behaved' from /=alad/-/bad/.

Exx. showing insertion of /g/ after a nasal are: /=u-galad/-/animal' to move out' from /=abi/-'to jump' (initial segment not found elsewhere); /=a:gi=ma=gala-/ 'to leave tracks behind' from /=alad/-; /=ma:n-gala/- 'to have fins visible' also from /=alad/-; recall also /=a=gab/-/p-49 from preceding page.

Instead of a rule inserting /g/ directly, we could also consider an alternative analysis involving insertion of presurface /w/ which will then automatically become surface /g/ after a stop or nasal by Hardening P-18. This approach is not used here, since the underlying vowel-initial roots which get /g/ by Velar-Insertion also regularly (though not always) get /n g/ after /a/- or /u/- The other roots with initial /w/ never show the /w/ becoming /n g/; after all nasals (and stops) the /g/ replaces /w/. Therefore the alternative to the present analysis (With Velar-Insertion) would require insertion of /w/ in precisely those cases where this becomes surface /g/ and we would still need a separate rule inserting /n g/.

(P-8) Velar-Insertion

\[ g \rightarrow \begin{cases} n g & \text{|} x \rightarrow y \text{ where } X- \text{ is a compounding initial or derivational prefix ending in /g/ or /n g/ and where } /v/ \text{ is the initial vowel (long or short) of a root (this subrule applies to most but not all instances of this environment)} \\ g & \text{|} x \rightarrow y \text{ where } X- \text{ is a compounding initial or derivational prefix ending in a stop or nasal, and } /v/ \text{ is as in the preceding subrule} \end{cases} \]

The specification that X- must be a compounding initial or derivational prefix (i.e., cannot be an inflectional pronominal or noun=class prefix) is not necessary if P-20 and P-21 are ordered before P-8 and if V-Truncation P-46 also precedes P-8. P-8 applies to nouns as well as verbs. //u-ganbal// /u-ganbal// (P-8) /u-ganbal// (P-5 and P-29) 'its head'.

§3.9

P-8
As noted in the preceding chapter, there are two morphophonemically distinct /w/ phonemes represented as /\textit{wl}/ and /\textit{w2}/. The distinction applies clearly only in morpheme-initial position and is based primarily on whether the hardened form is /g/ or /b/, respectively (see Hardening P-18).

In addition to this, /\textit{w}/ is more frequently deleted than is /\textit{w2}/ in some nonhardened contexts. We therefore posit a rule P-9 applying to underlying /\textit{w}/ only. Unfortunately, the details of the rule are tricky and the deletion is frequently optional, different speakers differing in their regular patterns. Moreover, we do not have a simple either/or rule; instead, there appear to be intermediate articulations in which a very weak and possibly inaudible /w/ is produced, mostly when the adjacent vowel(s) is (are) /a/. There are very few such stems beginning with /\textit{wl}/. Those attested be used as a compound initial in verb stems, as in /\textit{wl}i=ma/= 'to get the flesh of (something)', /\textit{wl}i=ga:/ 'to be skinny', a frozen reduplicative pattern showing the usual alternation of /\textit{wl}/ and (hardened) /g/; and perhaps /\textit{wl}-wu=/ 'to scorcher' if we set up the base form as /\textit{wl}i-i=/ on the basis of the synonymous compound /\textit{g}i-i=/ where the /\textit{w}/ must become /y/ at an early stage in the uncompounded form as /\textit{g}a:ma=/, forms of this verb in word-initial and other deleting environments show consistent retention of the semivowel on the surface, following the expected pattern for the dominant representation /\textit{wl}i=ma=/.

Summarising so far, /\textit{wl}/ is typically deleted in root-initial (or prefix-initial) position in verb forms when preceded by zero, by /\textit{a}/, or by a nonnasal sonorant.

We now turn to (nonadjectival) nouns, whose normal environments are word-initial position, and position following inflectional and/or derivational noun class prefixes. In the case where a derivational noun class prefix immediately precedes the root, we cannot tell whether /\textit{w}/-Deletion applies, since unmarked /\textit{g}/ would then be hardened to surface /g/ by P-18, while if /\textit{w}/ is deleted a surface /g/ will be inserted anyway by Velar-Insertion P-8. This analysis would apply to such forms as /\textit{m}a=s-\textit{w}a/ga:/m=a-gal/ 'neck (of MANA class object).

In the other positions where a (nonadjectival) noun can occur (leaving aside compound-final position, which is impossible for the majority of noun roots), we do not have a sufficient range of phonological environments to distinguish clearly between /\textit{w}/, /\textit{wa}/, and /\textit{a}/ as initial segments of roots. The inflectional noun class prefixes all end in /a/ except for /\textit{yi}/-/, and as we have seen (cf. P-9, above) the latter induces w-insertion anyway.

The patterns which emerge from this restricted set of environments are these: stable initial /a/, or fluctuation between /a/ and /\textit{wa}/ across informants (each speaker generally sticking with a given variant of each individual stem).
For example, /ajjalbal/ 'antelope kangaroo' and /varmin/ 'Saratoga fish' have always been heard in the forms shown, whether word-initial or with inflectional noun class prefix as /ana-rajjalbal/ and /na-varmin/. On the other hand, with nouns such as /wala/murgu /'bustard (bird sp.)' and /wadhar/ /'gray kangaroo/', the noun-vowel is pronounced by some speakers but omitted by others. The fluctuating stems appear to range from cases where most speakers pronounce the /w/ to cases where only a few do.

For noun stems (excluding adjectival nouns, which can occur in forms with verbal prefixes and thus a wider range of phonological contexts than ordinary nouns), it is therefore rather difficult to apply the underlying distinctions set up for verbs, with /w/, /wa/, and /a/ clearly distinguished. For the small number of noun stems which can occur as compound initials or finals, we may be able to set up one of these three underlying forms with confidence, but in most of the other cases it would be speculative to differentiate /w/ from /wa/, or to argue that surface /a/ can sometimes represent underlying /wa/. For most nouns, therefore, we set up initial /wa/ (without numerical subscript) or /a/, recognising also that for one set of nouns speakers differ in their choice of these two initial possibilities. The wI-Deletion rule P-9 is therefore not designed to apply to these ordinary nouns. It does apply, however, to a handful of nonadjectival nouns such as /walamag/ 'neck', which has the form /alwag/ as a simple noun but the underlying form /-wlalag/ (with idiosyncratic stem-internal w-deletion) in compounds.

The actual output from /i=wla/ is either /i=wa/ (where P-9, an optional rule, does not apply) or /i=ya/, the latter being more likely. The analysis I have included the environment after /i/: in this formulation. There are no alternations in nouns between /wli/ and /wla/, as well as /wli/ being essentially restricted to adjectival nouns, which can occur in other environments. For cases involving /w/ at the end of the initial morpheme which does not undergo P-9, and for surface /w/ sequences due to wI-Deletion P-9, the latter with variable vowel. The relevant atomic sequences are

P-9

\[ w_I \rightarrow \emptyset \]  
\[ \begin{pmatrix} a(1) \\ l(1) \end{pmatrix} \]

\[ \begin{pmatrix} \text{consonant} \\ \text{nasal} \\ \text{consonant} \end{pmatrix} \]

Note: optional but common in most of the contexts

I have included the environment after /l(/) in this formulation. The actual output from /lwa/ is either /lwa/ (where P-9, an optional rule, does not apply) or /lya/, the latter being more common. The latter form can be generated either by a rule converting /wI/ into /y/ (cf. P-13, below), or else by allowing P-9 here to delete the /wI/ and allowing y-Insertion P-10 to insert /y/. The analysis used here is the latter, so P-9 and P-10 apply in the case of surface /lya/.

It should be mentioned that there seems to be a tendency among younger speakers to reduce the scope of P-9, restoring surface /w/ in some of the deleting environments for those roots (chiefly verbs) where the /w/ is clearly present in other surface forms of the same roots. Thus /warn=aba:/ 'from //w=aba//' 'to wrap' is common among my older informants, but many younger persons pronounce this /warn=aba:/ 'they wrapped them'.

§3.10

3.11 y-Insertion P-10.

This rule accounts for epenthetic /y/ inserted between a morpheme ending in /l(/) and a morpheme beginning in a vowel at the time when the rule applies. (Many underlying sequences of this type are contracted to a long vowel by YV-Contraction P-49, which precedes the present rule. The present rule applies to forms involving long /l/ at the end of the initial morpheme, which do not undergo P-49, and for surface /y/ sequences due to wI-Deletion P-9.

Examples of P-10 are /yi=awa/ 'yi=yawumun' /'common fly' (note that wI-Deletion P-7 does not apply because of the long /yi/), and /w2angdi=ayu/ 'yi=oya/ (P-6) /w2angdi=ayu/ 'to cut up flesh (of rays)'.

(P-10) y-Insertion

\[ \emptyset \rightarrow y \]  
\[ /l(/) \rightarrow y/ \]

We might consider extending P-10 to also insert /w/ after /a(/) in a similar environment. However, in the relevant cases, with surface sequences like /u-ya/; we are generally dealing with underlying morpheme-initial /w/. Having P-10 (re-)insert /w/ would make sense only if an intervening rule deleted the underlying /w/. One could possibly make a case for just such an analysis, with wI-Deletion P-9 deleting /w/ not only after /a/ and /l/ but also /u/.

3.12 Prefixal w2-Deletion P-11.

Although we have noted in section §3.10, above, that /w2/ is normally much more resistant to deletion than /wI/, there are a handful of specific morphological combinations where /w2/ is regularly deleted. For cases involving /w2/ at the beginning of a stem, see the next section (§3.13). In the present section we deal with phenomena affecting pronominal prefixes attached to verbs.

As background we take the maximally abstract internal analysis of pronominal prefixes presented in Chapter 9. That is, in this analysis a pronominal prefix (specifying, say, both subject and object pronominal category for a transitive verb) can be broken down into a number of tonic morphemes tied together by an intricate relational system. If we do not accept this maximally abstract interpretation, and instead consider the pronominal prefixes to be internally unsegmentable, the following sections of Prefixal w2-Deletion would be regarded as at most of historical (not synchronic) interest. The relevant atomic morphemes are /w2-an/, /w2-la/, and /w2-v/, the latter with variable vowel. The morpheme /w2-an/ is used chiefly to distinguish the A and B series of pronominal prefixes (Chapter 9), each series being associated with a particular set of verbal categories (tense, aspect, mood, negation; see Chapter 8). Thus /w2an/ /a/ (e.g., in Present Positive) vs. /w2an/ /a/ (e.g., in Present Negative). The morpheme /w2-an/ occurs chiefly as the /y- w2an/ transitive prefix (/w/) and arguably in certain other combinations. The morpheme /w2-v/ is Nonsingular, and occurs in certain 2nd and 3rd person forms.

In the case of /w2an/, the basis for identifying the initial
segment as /w/ in that surface /b/ appears when this morpheme is preceded by another morpheme /-n/, as in /nwa-n-wana-n/ → /nwa-n-wana-n/. However, the corresponding '3P/ WARA → 1SG' form, lacking /-n/, is /nwa-n-wana-n/ → /nwa-n-wana-n/ where the /w/ of /-wana-n/ has been deleted (though some subsequent reductions as well). Moreover, when /-wana-n/ occurs in word-initial position (with no preceding morphemes), the /w/ is usually not pronounced, except by some older persons. Thus compare 3P/ WARA → (w)nani- → (w)ana-n. The 1 → 2SG /w/ morpheme is pronounced /wa-/ or /a-/ in addition to the surface /w/ when a verb root begins in /i/ on the speaker. However, the basic form seems to be /wa-/ for all speakers, as in /wa-1/1/ → /wa-1/1/ 'I will give to you'. It is reasonable to argue that the evidence for taking /wa-1/1/ as /wi-2/ /a-1/ rather than /w2/ai-1/1/ /nimba-/ or other /-w2a-/ forms, can perhaps be analyzed as containing /wa-1/1/ as the final atomic morpheme, /w/ appearing on the surface as /b/. There is also a 2SG morpheme /w2a-/ which might also be related, though not by any synchronically productive rules.

The Nonsingular morpheme /-w2aV- has its surface vowel quality (where relevant) assigned either by morphologically based allomorphy (rules Chapter 9), or else in other combinations) by V-assimilation P-57. The choice of vowel has no effect on the deletability of the semivowel. The latter is not deleted word-initially, hence it occurs as the initial part of /wuru-/ /wara-/ and /wiri-/ (with various endings). Noninitially, the /w/ is retained, in hardened form /b/ by Hardening P-18, when immediately preceded by a consonant (Inverse /-n-/ or B morpheme /-wana-n/), as in /wara/- /wara/ → /wara/. However, when /w2a-/ is preceded by a vowel, the semivowel is always deleted with subsequent contraction of the two vowels (the relevant rules being WV-Contraction P-49 and Nonsingular-Shortening P-41). Thus /nwa-n-wana-n/ → /nwa-n-wana-n/ → 1SG → WARA /-n-/ among other exx. It should be noted that the treatment of /w2a-/ in such forms permits us to avoid in morphemes involving multiple prefix /-w2a-/ (a derivational prefix inserted between phonemic prefix and stem), hence /nwa-n/ (just mentioned) is distinct from /nwa-n-wara-/ (variant /nwa-n-wara-/ with 1SG /AWA-/ followed by /wara-2/). Similarly, the failure of the present w2-Deletion rule to apply word-initially limits differentiation between /warana-n/ (containing /w2aV-/) and /w2a-/ (zero /AWA/ /AMA/ /AMA-/ prefix plus Multiple /-w2a-/.

Because the three atomic morphemes beginning with /w2a-/ which we have discussed show deletion of this semivowel in somewhat distinct environments, we formulate the rule in three parts.

(P-11) Prefixal w2-Deletion

a.  

\[ w2a- \rightarrow a- \]

for all but a few elderly speakers; here /w2a-\ is the B morpheme in pronominal prefixes.

§3.12

P-11

b.  

\[ w2a- \rightarrow a- \]

where /w2a-/ is 1 → 2SG and X does not begin with /i/; it is indiscriminate whether the rule applies when X begins with /i/ (because P-5 would restore surface /w/ here); some speakers do not apply P-11b at all.

c.  

\[ w2a- \rightarrow w- \]

where /w2a-/ is the Nonsg morpheme with pronominal prefixes; rule applies rigorously for all speakers.

3.13 Stem w2-Deletion P-12.

Ordinarily, /w2/ at the beginning of a stem resists deletion. However, there are two kind-term roots which show alternations of the type /-ib/ after a stop vs. /-i/ after a vowel or in word-initial position. We handle these by positing a basic form /w2a-/ with the usual /w2a- \rightarrow b/ after stop by Hardening P-18. This requires an idiosyncratic deletion of the /w2/ for these stems in non-Hardening environments.

The more common of the two roots is /-w2bibi/ 'Mo' (Table 5-1, B11); the base form just shown is consistent with PI forms /mij-bibi/ 'your mothers' and /mij-bibi-yunja/ 'his/her/their mothers'. With Fsg prefix /fara-/, however, we find /fara-bibi/ 'your mother' and /fara-bibi-yunja/ 'his/her/their mother'. The reduction of /fara-bibi/ to /fara-/ is regular before surface begins in /i/ (but not, say, /yi/ or /wi/), see V-Truncation P-46. We therefore need a rule converting /fara-bibi/ into /fara-/ before V-Truncation applies. With no noun-class prefix /-w2ibib-/ takes the form /ribib/ or /ribib/ 'your mother' (add suffix /yunja/ for 3rd person form). The variant /ribib/ is compatible with an intermediate form /ibib/, with the /y/ added as a low-level phenomenon by Initial Semivowel-Insertion P-35. However, /ribib/ represents an optional restructuring of the basic form of the root (presumably by resegmentation of /fara-bibi/ as /fara-ribib/, influenced also by the 1SG form /viganja/ 'my mother'). Speakers who consistently use /ribib/ instead of /yibib/ for 'your mother' (with noun-class prefix absent) require recognition of two distinct basic forms for '(your) mother', one /w2ibib/ to account for /mij-bibi/, and another /ribib/ for the word-initial case; the simplest way to analyze /awag-ni-wa-bibi/ (Table 5-1, B11) is an as /awag-ni-wa-bibi/ (for /wa-/ surface allomorph of Fsg /fara-/ see discussion of Feminine Prefix-Trigger P-34); this latter rule could be generalized to take care of /fara-ribib/ if needed.

A somewhat similar alternation occurs with /-awag-nij/ /awag-nibibi- /awag-nibibi- /awag-nibibi-/ 'father and child' and /awag-nibibi- /awag-nibibi- /awag-nibibi-/ 'father and child' (PI /mij-/ inducing Hardening P-18 of /bibi/ to /b/). Compare prefixless /awag-nibibi/ and prefixed /ma-waga-ni-wa-bibi-/ 'father and child' (the prefix is M /na-/), pointing to a form without the initial /w2a-/. (See Table 5-1, A11).

We should caution that all of these alternations are rather frozen, and the derivations suggested highly opaque. In the case of
'father and child', there is an alternative representation with /w/ instead of /w/, hence Pl /niجمال-غواننأ*b/2, though the other form is still /وا-مان-أ*b/2 with no prefix. (There are a few other stems with fluctuating initial /w/ or /w/.) For speakers with /w/, no special rule (P-12, below) is needed, since /w/ will become /w/ anyway by w-Deletion P-9.

In any event, the special rule P-12 is needed for /w/1b/, and for most speakers also for /w/2w-أ*b/2. It is difficult to identify the precise phonological context for the rule, since there are so few relevant forms. The exact given above show that the deletion applies word-initially and after /s/, but does not apply after /s/. The compound /bاث-بأ*b/2 'clan' country of his mother' shows deletion after /s/. Derivatives like /مأ*bأ*b/2-yأ*b/2 (MANA class) mother', base form /مأ*bأ*b/2-yأ*b/2, shows nondeletion after stop archiphoneme /s/. The evidence is incomplete, but it looks as though /w/ is retained after stop or nasal, where Hardening P-18 will convert /w/ to /h/, and it is deleted in non-Hardening environments. If we order P-18 before the deletion rule, no special phonological restrictions are needed.

The rule applies to the only two kin terms beginning with /w/, so it is reasonable to specify this in the rule.

(P-12) Stem /w/2-Deletion

\[
/w_2/ \rightarrow /w/ \quad \text{at the beginning of a kin-term noun}
\]

3.14 /w/1-Palatalisation P-13.

Just as /w/ is more susceptible than /w/2 to deletion (leaving aside kin terms and pronominal prefixes), /w/ is also more prone to become /j/. Usually no special rule is needed, since /1-wu-A*b/2 \rightarrow /j-wa/ is already explained by the combination of /w/-Deletion P-9 and y-Insertion P-10. However, there are one or two rather frozen derivational relationships which may require a direct palatalisation of /w/ under the maximal generative analysis.

The verb 'to scorch' has the shape /مأ*bأ*b/2-wu-A*b/2 in uncompounded form, and in the compound /مأ*bأ*b/2-wأ*b/2 'to scorch (fur of)'. The uncompounded form behaves like other stems with underlying initial /y/ in its inflections, and thus shows /y/ \rightarrow /j/ after stop or nasal by Hardening P-18, as in /مأ*bأ*b/2-wأ*b/2 'I will scorch it (АMA)'. However, the compound with /mأ*bأ*b/2-أ*b/2 'flame' is not the expected /mأ*bأ*b/2-wأ*b/2, rather /mأ*bأ*b/2-wأ*b/2, which points to underlying /mأ*bأ*b/2-wأ*b/2. The alternation is frozen, but we could account for it by setting up /مأ*bأ*b/2-wأ*b/2, with /w/ becoming /y/ (presumably by assimilation to the following vowel) in the uncompounded form, and in compounds with initial element not ending in stop or nasal.

(P-13) /w/1-Palatalisation

\[
/w_1/ \rightarrow /y/ \quad \text{in } /مأ*bأ*b/2-wأ*b/2 \quad \text{to scorch' where } X \text{ is not a compound initial ending in a stop or nasal.}
\]
There is also a much more general inflected form for many verb classes which we here call Nonpast₃ (mainly used as future negative). For the great majority of stems ending in /a/ or /i/, the Nonpast₃ is of the form /-l/l-y/. Obviously, for stems ending in /a/ we can regard this as a zero suffix, but for those ending in /i/ it is possible to set up the suffix as //i-y// with P-50 and P-15 then changing //ay// to /_y/ as Nonpast 3 suffix for the relevant stems ending so that //i-y// is also reduced to /i/ by P-15. There are one or two verbs ending in /a/ which also show Nonpast₃ /-l/-y/, as with /-ugu-/ 'to weep' (class 3), Nonpast₃ /-rugl/-y/, and of course we get this up as //ugu-y// with P-50 and P-15 then applying (compare Past₁ /-rugl/-y/ 'wept' showing P-50 before palatoalveolar), however there are other Nonpast₃ forms, notably /u:-'/ for some //iy// to /i/ in syllable-final position. The various morphological restrictions on the reduction of //ay// to /_y// restrict this up as Nonpast₃ suffix for the relevant stems ending in /a/ or /i/, so that /-l/-y// is also reduced to /i/-y// by P-15. There are one or two verbs ending in /a/ which also show Nonpast₃ /-l/-y/, as with /-ugu-/ 'to weep' (class 3), Nonpast₃ /-rugl/-y/, and of course we get this up as //ugu-y// with P-50 and P-15 then applying (compare Past₁ /-rugl/-y/ 'wept' showing P-50 before palatoalveolar), however there are other Nonpast₃ forms, notably /u:-'/ for some

3.17 Lenition P-16.

The language has a number of important alternations of stop and continuant, of the type //y//, //w//, //g//, //d//, //dh//, and (rarely) //r//. In the majority of these alternations, we are dealing with an underlying continuant which is "hardened" to a stop after a nasal or stop. On the other hand, stems beginning with underlying stop retain this stop in all forms; in the environments where the continuant-initial stems undergo Hardening, the stop-initial stems add a proposed morpheme /-nYu-/. These are the regular treatments of stem-initial continuants and stops; see discussion of /-nYµu-/ Eponthesis P-1 (above) and Hardening P-18 (below).

However, in addition to the regular patterns, there are some more specialised patterns observed with a minority of stems, requiring supplementary rules applying only to such stems. Basically, this minority type behaves like a stop-initial type when no compound initial (or derivational prefix) precedes, and like a continuant-initial type in compounded/derived position. Moreover, consideration of reduplications and other details shows that there are really at least two minority patterns of this general type, requiring distinct analyses.

One subtype, to be described in connection with a case, involves set up as "right", /i/-lhamungur/, /it is short", etc. Compare the form /-lhamungur/ as compound final or after derivational prefix, as in /-wuduhamungur/ 'it is short', etc. Compare the form /-lhamungur/ as compound final or after derivational prefix, as in /-wuduhamungur/ 'it is short', etc. Compare the form /-lhamungur/ as compound final or after derivational prefix, as in /-wuduhamungur/ 'it is short', etc. Compare the form /-lhamungur/ as compound final or after derivational prefix, as in /-wuduhamungur/ 'it is short', etc. Compare the form /-lhamungur/ as compound final or after derivational prefix, as in /-wuduhamungur/ 'it is short', etc. Compare the form /-lhamungur/ as compound final or after derivational prefix, as in /-wuduhamungur/ 'it is short'. The crucial reduplicated PI form is /-dhamu-/ /-lhamungur/, becoming /-lhamu-/ /-lhamungur/ in compounds and derivatives. Because the reduplicative segment is bi-syllabic, the base form should be /-lhamungur/ at the base of Initial Reduplication P-2, even in unreduplicated forms, so what we need is a later rule converting the continuant, here /dh/, into a stop, here /dh/, in the relevant positions. This is what is done by Leftward Hardening P-19, /-dhamu-/ /-lhamungur/ being /-dhamu-/ /-lhamungur/ produced by P-19 are themselves subject to later, lower-level rules, and that /-lhamungur/ may become /-dhamungur/ by the regular Hardening rule P-18 if preceded by stop or nasal.

In the present section, however, we are concerned not with this subtype, rather with a distinct one which we will exemplify with /-lhamu-/ /-lhamungur/ 'to shut off', leaving aside the reduplications, we observe that when no compound initial or derivational prefix is present, the stem behaves like underlying /-lhamungur/; however, when such an element is present, the stem behaves like /-lhamungur/, as in /-gari-/ /-lhamu-/ /-lhamungur/ 'to shut off from behind'. The representation /-lhamungur/ /-lhamungur/ also appropriate for instances in compounds/derivatives where /-lhamungur/ becomes /-lhamu-/ /-lhamungur/ after nasal or stop by the regular Hardening rule P-18. So far, the alternation /-lhamu-/ /-lhamungur/ is like that of /-lhamungur/ and /-lhamungur/ (preceding paragraph).

However, if /-lhamungur/ were fully parallel to /-lhamu-/ 'short', the regular reduplication by P-1 should be /-chidi-/ /-lhamu-/ /-lhamungur/, with the bi-syllabic reduplicative segment appropriate for stems ending in continuants, and with the post-reduplicative segment showing the continuant. Instead, we get /-dhi-/ /-lhamu-/ /-lhamungur/, which is the regular reduplication for stop-initial stems. Despite the similarities, it seems important to distinguish the subtype represented by /-lhamungur/ /-lhamu-/ 'short' (where the continuant is clearly underlying /-lhamungur/) from that represented by /-lhamu-/ /-lhamungur/ 'to shut off'. In the latter case, I choose to take the form with stop as basic, and set up a rule limiting the stop to the homorganic continuant, here /dh/ to /lh/, when the stem is preceded by a compound initial or derivational prefix (not including simple reduplicative segments). The reduplicative prefixes here include Benefactive /-wa-/ or /-waG-/ /-wa-/ and its allomorph, etc.; an ex. of Benef is /-wa-/ /-lhamu-/ /-lhamungur/ 'to shut off for', which must have a form /-waG-/ /-lhamu-/ /-lhamungur/ rather than /-wa-/ /-lhamu-/ /-lhamungur/ at an early stage, since the latter would incorrectly give /-wa-/-n-/ /-lhamu-/ /-lhamungur/ by /-waG-/ /-lhamu-/ /-lhamungur/ Eponthesis P-1.

The full set of lenitions attested in verbs of this type is: /b/ /-w/, /dh/ /-l/, /j/ /-y/ /q/, /g/, and /j/ /-y/. In other words, formally Lenition is the inverse of Hardening (P-18, also P-19), which converts these same continuants into these same stops. Very often the effects of Lenition are apparently undone by subsequent application of Hardening P-18. This is seen in the ex. /-lhamungur/ 'to shut off for' (preceding paragraph), and is regular for those stems which undergo Lenition in compounds

\[3.16, 3.17\]
and derivatives when the preceding morpheme happens to end in a stop or nasal, as is the case with BeneS /wG- or /wSiG- (where /G/ is a stop archiphoneme). However, even in such exx., Lenition applies early in the derivation to generate the correct output, by preventing the application of n'u-Epenthesis P-1.

(P-16) Lenition (applies only to certain stems)

\[
\begin{align*}
  b & \rightarrow w_2 \\
  dh & \rightarrow lh \\
  d & \rightarrow E \\
  j & \rightarrow y \\
  g & \rightarrow w_1 \\
\end{align*}
\]

at the beginning of a noun or verb stem, where \( x \) is a compound initial or any derivational prefix (other than a simple -dp- segment)

It remains to specify the set of stems which are affected.

There are a number of clear cases where all attested forms are consistent with P-16; there are a few stems which show the effects of the rule in some compounds/derivatives but not others, and there are some ambiguous or idiosyncratic cases requiring separate commentary. In the following discussion and lists we separate verbs from nouns. Verbs to which P-16 applies regularly are:

\[
\begin{align*}
  /=barama-/ & \rightarrow /=barlha-/ 'to close off' \\
  /=dhida-/ & \rightarrow /=lhida-/ 'to close off' \\
  /=jiriri(j)ga-/ & \rightarrow /=yiriri(j)ga-/ 'to form line' \\
  /=jirirra-/ & \rightarrow /=yirirra-/ 'to drip' \\
\end{align*}
\]

The lefthand column shows the underlying form, also the dictionary citation form; the middle column shows the form after P-16. The actual data are set out in the dictionary entries; for some of these the data are not complete, and further data might show that some show Lenition only in certain compounds, or that one or two of these verbs have underlying continuant and undergo Leftward Hardening P-19 instead of P-16. The verbs to which P-16 applies in some compounds/derivatives only (perhaps only to older, more frozen ones), are these:

\[
\begin{align*}
  /=balhu-/ & \rightarrow /=balhu-/ 'to cut up' \\
  /=barga-/ & \rightarrow /=barga-/ 'to split' \\
  /=bila-/ & \rightarrow /=bila-/ 'to be tilled' \\
  /=bura-/ & \rightarrow /=bura-/ 'to dig' \\
  /=galma-/ & \rightarrow /=galma-/ 'to spread out' \\
  /=gulmun-/ & \rightarrow /=gulmun-/ 'to come out' \\
  /=halmun-/ & \rightarrow /=halmun-/ 'to spread out' \\
  /=hawadba-/ & \rightarrow /=hawadba-/ 'to come out' \\
  /=malma-/ & \rightarrow /=malma-/ 'to spread out' \\
  /=malmarug-/ & \rightarrow /=malmarug-/ 'to spread out' \\
  /=nugag-/ & \rightarrow /=nugag-/ 'to come out' \\
  /=silmurg-/ & \rightarrow /=silmurg-/ 'to spread out' \\
  /=ulmurg-/ & \rightarrow /=ulmurg-/ 'to spread out' \\
\end{align*}
\]

There are also some nouns, including adjectival nouns, which can be considered exx. of P-16. For the nonadjectival nouns, few cases of compound-final position are attested. However, there is an important set of derivational noun-class prefixes like ANA or WARA class /uG- and WAMA class /waG-/. When the following noun stem begins with an underlying stop, n'u-Epenthesis P-1 normally applies, hence /uG-gulmun-/ \rightarrow /wu-n'u-gulmun/ 'its belly' (ANA or WARA class). However, a few such nouns beginning in stops fail to show the /nu/- morpheme. Thus from /dhangara/ 'flower', not /wu-n'u-dhangara/ what we would expect if the base form were /uG-dhangara/, since n'u-Epenthesis does not apply before a stem-initial continuant and since the /lh/ will regularly become /dh/ after the stop /G/ by Hardening P-18. Accordingly, to account for the type /dhangara/, /wu-dhangara/ we must either label this stem an exception to n'u-Epenthesis directly, or else accomplish the same effect indirectly by having Lenition apply in the derivative form by an early application of P-16. This analysis is chosen here. The relevant stems are these:

\[
\begin{align*}
  /=dhangara-/ & \rightarrow /=dhangara-/ 'its flower' \\
  /=gadnuwa-/ & \rightarrow /=gadnuwa-/ 'young, new' \\
\end{align*}
\]

Nouns to which Lenition seems to apply only in certain compounds or derivatives are these:

\[
\begin{align*}
  /=galma/g/ & \rightarrow /=galma/g/ 'meaning huge' \\
  /=galmarug-/ & \rightarrow /=galmarug-/ 'meaning huge' \\
\end{align*}
\]

We briefly mention a few other apparent alternations of stop and continue outside of the Regular Hardening alternations described by P-18, and outside of the minority patterns just described here and described in connection with P-19.

First, there are a handful of alternations (§12.2) between verb stems and a corresponding verbal "root form" (interjection-like element which may be used as an abbreviation for a regular form or may be added to it): /shawad/- and inflected /shawadba- 'to come out', /galmaru/- and /galmaru-/ 'to run'. Note the dh/lh and d/r alternations. However, we do not handle the alternations with phonological rules in this analysis, since the root forms are best considered separate lexical items; they are usually supplene, occur for only a limited number of verbs, and even when etymologically cognate are not derivable by any consistent synchronic rules. Similarly, there are a few archaic alternations of two forms for certain fauna terms, where a stop-initial form designates the adult of the species and the "lentited" form the juvenile; see dictionary entries for /wubug/ and /wugag/, /almarug/ and /galmarug/, /yigama/ and /jigama/. Again, we prefer not to set up phonological rules since these forms do not constitute a productive pattern.

If /wugag/ 'old' is related to /w-wugag/, a compound final meaning 'hug', we may have another case of Lenition, at least historically.

The verb /sharuma-/ and variants 'to roll up', derived/compounded form /waSharuma-/ is another probable case of Lenition. The situation is complicated by the existence of variant stem-form /eSharuma-/, which might itself be an irregular reduplication of /Sharuma-/.

---

\[\text{§3.17 P-16}\]

\[\text{§3.17}\]
The relationship between /bibi/ '(my) mother's brother' and /
/w-bib/ '(your) mother' is etymologically rather than synchronic. This is also the case with /baba/ '(my) father' and /w-awang/
in /w-aawang-ni:/ 'father and child pair'. Cf. also the next section.

3.18 digu-Lenition P-17.

The adjectival noun /digu/ 'unripe, raw' has a /-~ig~/ form when used as a compound initial, where it means 'unripe, raw, unconscious, dead', as in /-~igawabi-/ 'to fall down unconscious/dead' with /-ab~/ 'to fall down'. The form /-ig~/ is subject to Hardening P-18 after stop or nasal, giving /-iigu-/ at one stage to prevent application of n-a-Epenthesis P-1. Other /r/ alternations are accounted for by Hardening P-19 and by Lenition P-16. However, the present /r/ alternation has a quite different distribution. It is independent of the choice of preceding segment and is distinct from Hardening P-18 (which, however, may apply to the output). It also differs from Lenition P-16 in that the presence or absence of another derivational or compounding element before the stem is not relevant; both noun /digu/ and compound initial /-ig~/ typically occur directly after the inflectional prefix (noun-class or pronominal). Moreover, the noun /digu/ is attested as compound final in /maa-ngu-digu/ 'raw (green) grass' with /mada/ 'grass', retaining its stop /d/ (and thus requiring n-a-Epenthesis P-1).

(P-17) digu-Lenition

\[ d \rightarrow r \] // --

only in the stem /digu/ 'raw' when used as a compound initial

3.19 Hardening P-18.

This is a very important rule by which certain continuants are converted into a homorganic stop after a stop or nasal; it is thus essentially the opposite of Lenition P-16. (A distinct hardening rule applying to a few stems under particular circumstances is presented in the following section.)

The basic Hardening rule is this:

(P-18) Hardening

\[
\begin{align*}
   \mu_2 & \rightarrow b \\
   \mu_1 & \rightarrow dh \\
   r & \rightarrow d \text{ (in some morphemes)} \\
   \mathbf{z} & \rightarrow d \\
   y & \rightarrow j \\
   \mu_1 & \rightarrow 6
\end{align*}
\]

// [Stop] // [Nasal] --

There are no exceptions to the rule, except for /s// \rightarrow /d/,
and no surface clusters created by later rules which escape it.

However, the rule applies only to the continuants listed; it does not apply to /l/ or /j/ for example, even though it does apply to /l/. This is presumably because /l/ and /j/ are not "paired" with any particular stop (if associated with /l/ and /j/ they would overlap with /s/ and /z/ morphophonemically).

Although in most cases the stop is historically basic, there is good reason to take the continuant as underlying synchronically. This is because, in addition to the stems showing the stop/continuant alternations, there is another set showing consistent initial stop, but no third set showing consistent initial continuant. Moreover, the alternating stems show the surface stop only after stop or nasal, and show the continuant in all other environments, including word-initially.

The subrule /r// \rightarrow /d/ is not very important, since very few morphemes begin with underlying /r/ (though /d/ is common). The most common is Locative case suffix /-ruj/, which does become /-duj/ after stop or nasal, as in /a-ran-\=ruj// \rightarrow /a-ran\=da-duj/ 'in the tree' (note that the /r/ constitutes the conditioning environment for Hardening but is then deleted by a later rule, probably Geminate Contraction P-31). Similarly, the Dyadic kin term /a-digi-/ 'mother and child group' contains Pl /mj// and /rigi// 'mother and child pair'.

However, /s// \rightarrow /d/ does not work for verbs. There are two relevant stems, /ra\=ya// 'to swear at' and /ru\=ba// 'to cook on open fire', and when preceded by stop or nasal they do not harden the /r/, hence /n\=ru\=ba\=ma// \rightarrow /n\=ru\=ba\=ma-na/ 'I will cook it (ANA)',. This is also true of compound verbs beginning with /-\=ruj// (compound initial used in myths as characteristic of the speech of Brolga).

There is also a minor instance of /s// becoming /\=d/ instead of /d/. This is Dyadic /\=ramu-ni/ 'PaMo and SoCh pair' and its Pl form /\=ramu\=ni/ 'PaMo and SoCh group', again with Pl /mj//. However, we should remark that Pl Dyadic kin terms are rather irregular, with /\=mi// sometimes appearing as Pl allomorph before stem beginning (otherwise) in a vowel, so it is perhaps misleading to treat this as a straightforward case of /s// \rightarrow /\=d//.

The other continuant/stop alternations in the rule, indicated above, are attested with hundreds of morphemes in all positions in the word. For example, most of the case suffixes begin with a continuant: Relative /-yin\=mu/ , Allative-Dative /-w\=yu/, Simple Progressive /-\=a\=ya/ , etc.; these all show hardened variants when the stem ends in stop or nasal, so with /ran\=ag// 'wood' we get /a-ran\=a\=ja\=ya\=mu/ , /a-ran\=a\=ya\=yu/ , and /a-ran\=a\=ba/. Nouns like this one which permit derivational noun class prefixes like ANA /\=m\=a// and MAMA /\=mu// also show alternations at the prefix boundary, hence /m\=ra\=ng// \rightarrow /ru\=ana\=ng// 'wood (of ANA object)'.

Verb stems can be preceded by prefixes ending in stops or nasals, such as 15p /\=n\=a\=ya// (contrast 15p /n\=a\=ya// 'gent' we get Past Continuous /\=n\=a\=ya\=ma\=ng// vs. Past Potential /\=n\=a\=ya\=ma\=ng//).

Further exx. are /\=n\=a\=ma\=n// 'I hit it (ANA)' vs. /\=n\=a\=ma\=bi\=n// 'I would have hit it' with /\=w\=a// \rightarrow /\=w/ ; /\=n\=a\=ma\=j// 'I stood' vs.

§3.17 to §3.19

F-17, P-18

§3.19

63
I would have stood' with //h// → //dh//,
//g'armallda-n// → //g'armallda-n// / I would have gotten mad' vs. //g'armallda-n// / I got angry' vs. //g'armallda-n// / I slept' vs. //g'armallda-n// / I would have slept' with //g// → //j//; and
//g'armallda-n// / I cut it (ANA) / vs. //g'armallda-n// / I would have cut it' with //g// → //j//. (These particular exx. also show Nasal-Assimilation P-27.)

Other, less productive, stop/continuant alternations are dealt with in connection with Leftward-Hardening P-19 (below), and with Lenition P-16 and 2nd-Lenition P-17 (above).

3.20 Leftward Hardening P-19.
This rule is needed to account for a handful of stems which behave as continuant-initial stems in some contexts but show a surface initial stop word-initially or directly after an inflectional prefix. This type is similar to that discussed in connection with Lenition P-16, but differs in that the reduplication pattern presupposes the initial continuant, so that we need a later rule converting the continuant to the paired stop.

An example is //dh'amungur/ 'short', reduplicated PI
//dh'amungur// with initial continuant, since Initial Reduplication P-2 produces a non-syllabic pattern with stem-initial stop. When a compound initial or derivational prefix is present, the forms are Sg //dh'amungur// and Pl //dh'amungur//, though the initial //h// is subject to subsequent conversion to //dh// if preceded by a stop or nasal, by Hardening P-18. In uncompound and underived position, the forms //dh'amungur// and //dh'amungur// do not have initial //dh// due to Hardening P-18, but behave like underlying //dh//; specifically, they induce n'-Insertion P-1 under the same conditions as true stop-initial stems. We therefore need an early rule applying to selected stems, such as //dh'amungur//, converting the //h// into //dh// when not preceded by a stop and nasal in //dh//. This special rule follows Initial Reduplication P-2 but precedes later rules such as n'-Epenthesis P-1. An ex. is //na-n'-dh'amungur/ 'you and I will be short', illustrating both P-2 and P-1.

(P-19) Leftward Hardening (for a few stems only)

\[ w_2 \rightarrow b \quad // \# \text{ (inflect. prefix)} \]
\[ 1h \rightarrow dh \quad y \rightarrow j \]

In principle, we expect the rule also to involve //w// → //g// and //z// → //j//, by analogy to Hardening P-18 and Lenition P-16. However, P-19 is known to apply to a handful of stems only, and we cannot cite exx. involving these particular changes. The stems affected by P-19 are those (but see also §2.22):
//amara/- //samara/-
//kalwilla/- //shkalwilla/-
//dh'amungur/- //dh'anungur/-
//short'
As noted above, Pronominal d-Insertion P-20 applies when vowel-initial stems (including compounds/derivatives) are preceded by certain pronominal prefixes ending in //n//. The rule does not apply, in general, to other phonologically similar combinations, even when a compound initial or derivational prefix ending in //n// is followed by a vowel-initial stem. Instead, Velar-Insertion P-8 normally applies. Thus //mun-alaidi// → //mun-n-alaidi// ‘having bad feet’.

However, there is one isolated instance where the rule inserting /d/ does apply in a compound. Unlike Pronominal d-Insertion P-20, this ex. does not show lengthening of the following (stem-initial) vowel, so we formulate it as a separate rule here.

The relevant form is //sand-irija//, PI of //yirija// (one of the human moiety terms, thus comprising about half of the Nunggubuyu people). The Sg form //yirija// behaves like //irija// (i.e., as vowel-initial stem) in some forms, notably //nar-irija-yun// ‘woman of Yirija moiety’. (The relevant entry on p. 276 of the Nunggubuyu Dictionary has a typo; emend //nar-irija// → //nara-irija-yun//)

Since the base form here and posit a rule inserting /d/, under approximately the same conditions as Pronominal d-Insertion, but without affecting vowel-initial stems (including compounds/derivatives) are preceded by apply, normally applies. Thus //nara-irija-yun g// → //ngara-irija-yun g//. Since the P-20, /g/ is regular nasalised to //n Y// before a nasal consonant. For example, //kulmur/// → //kul-nil//, where the prefix must end in unchanging //nil// rather than //j// (there being no nasalisation rule which could apply to this prefix). Similarly, compound initial like //lahaj-// ‘firewood’ and //naj-// ‘(solid) fat’ show final //n// in compounds like //nan-sma// ‘to get (solid) fat’. Moreover, ending in //j// show //n// before Instrumental suffix -//miri//, as in //wu-cham-‐miri// by means of ‘firewood’ from //g-lahaj-‐miri//. There are no consistent counterexx.

Relevant combinations involving underlying morpheme-final /d/ are uncommon, since these are not high-frequency stem-final consonants. There are, however, a few noun stems ending in them which can be followed by Instrumental -//miri//. In these combinations Nasalisation is possible but not obligatory. Thus from //yimid-// ‘tree sp. (Planchonnella)’ we get //yimid-‐miri// or //yimin-‐miri//, and from //yimbig-// ‘cypress tree’ we get //yimbig-‐miri//.

(P-22) Nasalisation

\[ j \rightarrow n^\prime \] // – C \[ d \rightarrow n \] \[ d \rightarrow j \]

usually obligatory for /d/, optional for /g/.

There is no strong argument against a more general formulation of the rule, to the effect that (any) stop is nasalised before a nasal. As noted above, /b d h/ do not occur in the relevant context, so there is no reason to exclude them specifically. As for the remaining stop //g// (and the stop archiphones //n/ //g/, which is indistinguishable in its effects from //g//), we have mentioned that it just disappears in the relevant contexts. This can be taken care of by Stop-Deletion P-29, which deletes //g/ and //g/ before any consonant. However, it would be possible in principle to allow P-23 to apply to combinations like //g-n//, giving intermediate //n-n//, since //n/ is also subject to deletion before another nasal by Nasal-Deletion P-30. In other words, we could allow P-23 to apply to //g/ as well as the other stops, though in the case of //g// the application would be vacuous so far as the eventual surface output is concerned.

Nasalisation P-22.

We are here concerned with assimilations of nasalisation in consonant clusters at boundaries, where an underlying stop is followed by a nasal.

The stops of Nunggubuyu are /b d h j g/. Of these, /b d h/ do not occur at the end of morphemes (except for a couple of intransitive verbal root forms or interjections ending in /b/), so they are irrelevant. Velar /g/ is common at the end of stems and other morphemes, but is always deleted as nonfinal element in a consonant cluster by Stop-Deletion P-29, so it is also irrelevant. This leaves /d h j g/.

Of these, /j/ is by far the most common morpheme-finally. It is regularly nasalised to //n// before a nasal consonant. For example, PI prefix //mi/j// → is often followed by a nasal consonant, resulting in forms like //mi/n-alan//iI → //min-n-alan//iI ‘girls’. For the underlying form //mi/j// of //mil-gulmur// ‘young circumcised men’ from //kulmur//, where the prefix must end in unchanging //mil// rather than //j// (there being no nasalisation rule which could apply to this prefix). Similarly, compound initial like //lahaj-// ‘firewood’ and //naj-// ‘(solid) fat’ show final //n// in compounds like //nan-sma// ‘to get (solid) fat’. Moreover, ending in //j// show //n// before Instrumental suffix -//miri//, as in //wu-cham-‐miri// by means of ‘firewood’ from //g-lahaj-‐miri//. There are no consistent counterexx.

3.22 Derivational d-Insertion P-21.

3.23 Nasalisation P-22.

This is a minor rule applying to one verbal suffix. In its simple form, the suffix is -//nl/, giving the Past2 form of certain high-frequency, mostly monosyllabic verbs: //na-nl// ‘saw’, //mi/n-‘ate’, //wa-‐ni/n-‘heard’, //yi-nl// ‘gave’. The corresponding Nonpast2 suffix for these verbs is //yal//, as in //na-yal// ‘sees’. These suffixes are not characteristic of other verb classes.

However, there is another fairly small verb class which does have a closely associated suffixal paradigm. This is the N class (see Table 11-4, in Chapter I). The Nonpast2 for this class is //nu/j//, which we analyse as //n-yl// with //y// → //j// by Hardening P-18. In other words, this is the same //yl// ending seen in //na-yl// ‘sees’, along with a class marker -//n//. Now the Past2 form, where we might expect //n-‐n//, reducing by Geminative Contraction P-31 to //n-‐n//, is in fact //n-‐d/ for the N class. Thus //wa-‐n-‐d// ‘smells’, Past //wa-‐na-n-‐d// ‘smelled’. If we assume that //n-‐d// is structurally the //n// class marker plus the same Past2 element seen in //na-‐n// ‘saw’, we need a minor rule changing //n// to //d/ by dissimilation to the preceding nasal consonant. This is not a productive rule; other combinations of two //n// segments are reduced to //n/ by Geminative Contraction P-31.
The combination /rn/ (with tap /r/) is not common at any level of derivations. In relatively productive compounds and the like, when morpheme-final /r/ comes into contact with following morpheme-initial /n/ the sequence may be retained: /ra:jburwema/ 'to mock' (compound with /uma/ 'to see').

However, in some of the more frozen combinations we appear to have a rule by which /rn/ is converted into /r/. First, in demonstrative (including interrogative) pronouns, we find a MDu ending /-ni/ in opposition to a PDu form /-ri/. As in /yar-wi-r-ri/ 'here they (MDu) are' vs. /ya:-wi-r-ri/ 'here they (PDu) are' (Table 7-1, Chapter 7). Similar endings occur with independent personal pronouns (Table 6-1, Chapter 6). The M morpheme elsewhere shows up as /na/-/-ni/, or /su/- depending on the particular context (inflectional vs. derivational noun-class prefix, intrasentential vs. transitive nominal prefix, etc.) opposed to F morpheme /frana/-/-ni/, or /su/-. It seems reasonable, on a fairly abstract analysis, to represent /-ri/- as consisting of a special Nonsg morpheme /-ri/-, related to Nonsguals /-r/- in nominal prefixes; by analogy, we could take MDu /-ni/ as surface form of a sequence /-r-/- with Nonsg /-ri/- and M /-ni/. If so, we need a rule by which /rn/ → /r/.

The other instance of this rule is now even more frozen. There is a verb /=nal-urna/- 'to make large campfire', which has the same (very unusual) suffixal paradigm as /=na/- 'to burn' (trans.), and which can thus be regarded as a compound pronoun. It is quite possible that the compound initial is historically identical to /wur/ 'to fire' or /gur/ 'to grass fire', although synchronically this relationship is at best opaque. (The /w/ of /wur/ seems to be /w/, rather than /w/, to judge by the verb /=sagurum/- 'to set fires in bush', which seems to be from *-a-gur-ur-gan=na/-.) In any event, if /=nal-urna/- is indeed to be treated as a compound of /=na/-, we probably need a rule of the type /rn/ → /r/.

(P-24) rm-Contraction

rn → r

In the combination of Nonsg /-r/- with M /-ni/-, and in the compound /=nnj-gmagni/- from /=nnj-gurwema/-

There is also a compound /=nnj-gmagni/- 'fire in oven' to be burning well, related to /gmagni/- 'to burn' (trans.). Essentially, /=nnj/- functions as an irregular intransitivised (mediopassive) form of /=na/- 'to burn' (trans.). It is thus not surprising that /=nnj-gmagni/- has a counterpart /=nnj-gmagni/- and /=nnj-gmagni/- are intransitive, and they are not semantically related in precisely the same way the uncompounded stems are.

3.26 r-Deletion P-25.

This rule deletes tap /r/ when preceded by any liquid /l/ or /r/. In the case of /rr/ with two taps, the reduction to /r/ can be handled either by this rule or by Geminate Contraction P-31.

The remaining lateral /lh/ does not occur morpheme- or syllable-finally and so is irrelevant to the present rule. The most common forms involving deletion of /r/ are nouns with Locative suffix /-ri/. Exx. are /a-akhir-ri/- 'in the country', /a-`abaraw-ri/- 'in the open country', /a-`bala-ri/- 'on the top of the head', and /ama-haligur-ri/- 'in the mangrove sp.'

(P-25) r-Deletion

r → $ // Liquid —

An alternative would be to replace P-25 by a special assimilation rule by which /r/ would assimilate to a preceding liquid, creating a geminate cluster which is then reduced by Geminate Contraction P-31. No deletion applies to /j/, as we can see in /hal-gan5-gurum$/ /`elan/ country of your mother-in-law'.

3.27 Palatal-Deletion P-26.

The consonants /j/ and /r/ are deleted under certain conditions before other consonants, mainly coronal (glveolar, retroflexed, etc.). Such combinations as /j/ and /n/ will be reduced anyway by Geminate Contraction P-31. However, /j/ and /r/ are also deleted in some nongeminate clusters and a rule must be set up. It is possible, though, that this rule should be combined with yr-Contraction P-14.

The laminoalveolar stop /j/ is commonly deleted before coronal stops /h/ and /g/. The rule applies rigorously in established compounds and derivatives, but is sometimes suspended in newer, transparent combinations particularly when a noun ending in /j/ is followed by a case or postpositional suffix. Exx. of deletion: /hajl-`hamungur/ → /haja-dhamungur/- 'short piece of wood'; /ml-`rigji/- → /ml-digi/- 'mother and child dyad'; /i-j`ragu/- → /i-j`lagu/- 'to forget (be looking for) word'. Deletion does not occur very often before /b/ or /g/ except that deletion before these consonants is moderately common after /i/-vowel, especially in causative verb forms with suffix /-gur/ following /i/. Exx. showing failure to delete /j/ before /b/ or /g/ are /ml-bewran-`aj/- and variant /ml-`jawran-`aj/ 'father and child dyad'.

It is difficult to obtain a full set of exx. of underlying /j/ followed by various consonants. However, we can cite /ay-`hamungur/ → /a-`hamungur/- 'short raft' with /`hamungur/- 'disappearing before /h/'. We cannot cite any example involving the combination /a-y/.

In principle, we ought to be able to concoct a compound involving /ay/ 'nest; raft' as compounding initial and some verb beginning in /dh/ as compound final, but no exx. have materialised. It is reasonable to assume that they would undergo deletion of the /a/ at least as an optional pronunciation. As for /y/-, amplification of this cluster to /y/ is accounted for by rule P-14 (yr-Contraction), see above.

There are some exx. showing deletion of /r/ before /n/. The available exx. involve underlying /j/-n/-, where presumably /j/- → /n/- by Nasalisation P-22. In any event, with P-24 prefix /ml-j/-

(P-25) $//3.26$, $3.27$

P-24

§3.25, §3.26
we get surface /min-/ before velar nasal in /ni-n-aalan/ 'girl', but just /ai/ in /ni-n-aara-yuw/ 'his/her/their fathers' and other forms with following /n/. However, just as /j/ is deleted before /g/ preferentially when preceded by /i/, this deletion of /n/ before /i/ may be favoured by preceding /i/.

Since deletion does not occur in /-han=ma-/ 'to see (cut) wood', where the preceding vowel is /a/, in short, the deletion appears to apply to /n/ following /i/ and preceding /n/ (presumably also /a/, though we have no exx.); it clearly does not apply to /n/ before velar nasal, nor does it apply to /n/ before /n/, as in /-min-/ 'by means of (grass) roots'. We have no exx. involving underlying /n/ followed by the (par)interdental nasal phoneme /nh/; the geminate cluster //n n// is handled by Geminate-Contraction P-31.

We attempt to summarise the deletions which we have just detailed as follows:

\[\text{(P-26) Palatal-Deletion} \]
\[
a. \ j \rightarrow \emptyset // \text{- coronal} \]
\[
\{ \text{optional}\} \]
\[
b. \ y \rightarrow \emptyset // \text{1h} \]
\[
\text{and perhaps before some other coronal consonants like } /dh/ \]
\[
c. \ y \rightarrow \emptyset // \text{1s} \]

3.28 Nasal-Assimilation P-27.

The velar nasal /n/ normally assimilates to the point of articulation of a following stop; exceptions are largely limited to artificially slow speech. Thus /gumun/ 'belly' has case forms like Locative /a-gumun-dal/, Progressive /a-gumun-baj/, and Relative /a-gumun-jin-un/. In the case of following /i/, we sometimes get /n/ instead of fully assimilated /ni/, hence a variant Relative /a-gumun-jin-ni-un/.

A few prefixes and compound initials end in a nasal which behaves like /n/. Since it occurs only in environments where it acquires surface point of articulation by assimilation, we represent it conservatively as an archiphoneme /N/, though setting it up more concretely as /n/ would produce the right outputs. An ex. is Inverse //N-//, a morpheme occurring within pronominal prefixes, as in ANA-ga pthesis /-e=n-\-w/ to /\-\-w/ (see §14.4) are also affected, as in the case of /hilihir-wu-/ 'to pass by (someone), grasping (him)', but only when the vowel /u/ remains on the surface; thus /hilihir=(w)u-ma-na/ Nonpast, but /hilihir-wa-n/ Past. Other prefixes also beginning with semivowel and homorganic vowel do not undergo deletion; note Allative-Dative /-w/ and Similative /-yi/ 'like' in /a-ha:l-wuy/ 'to the country' and /a-ha:l-yi/ 'like (the) country'. Verb stems beginning in /\-\-w/ /-w/ or /\-\-y/ do not regularly show deletion in compounds.

3.29 Semivowel-Deletion P-28.

This is an optional but frequent low-level rule simplifying //yi// to /i/ and //wu// to /u/ after a consonant in some cases. The rule applies particularly often to Relative suffix //\-yin\-un// and to postposition //\-ug\-i// 'only; still', as in /ha:l=(w)ug\-i/ 'only country' and /a-ha:l=(\-y)in\-un// 'of the country'. Some auxiliary compounds involving /\-u-/ (see §14.4) are also affected, as in /hilihir=(w)u-/ 'to pass by (someone), grasping (him)'.
In addition to applying after consonants (the relevant ones being nonnasal sonorants, since these are the only consonants which a semivowel can follow on the surface), the deletion applies optionally after a vowel, as in /wur-buri-ge-w/ugj/ ‘they were still sitting’ and /wur-buri-ge-y/inn/uk/ ‘(the ones) who were sitting’. In rapid speech it is rather hard to hear the difference between deleted and full forms of these suffixes, and in the texts volume I have tended to use the full transcription when in doubt (this has the advantage, also, of assisting the reader in identifying morphemes).

The present rule is here distinguished from an apparently very similar rule which we have presented above as Homorganic Semivowel-Deletion P-4. Rule P-4 is a very early one, applying to a few stem-initial semivowels. After it applies, the relevant forms are treated as vowel-initial in a series of other phonological rules including Pronominal i-Insertion P-20 and VV-Contraction P-49, and the deletion applies rigorously regardless of preceding morphemes. The present rule is a low-level, optional rule applying to suffix-initial (not stem-initial) semivowels, does not feed into other rules, and is very much affected by preceding segments. In particular, when such suffixes as /-y/inn/uk/ are preceded by a stop or nasal, Hardening P-18 applies, converting the semivowel into a stop /j/ //j/// → /j//, //x// → /g//, //w// → /b//. Therefore, while recognising that P-4 and P-20 are rules of the same type, I prefer to separate them formally. Some readers may wish to consider them as two instances of the application of one and the same rule, applying at two distinct stages in derivations, perhaps with some version of the phonological cycle accounting for the difference in treatment of stem-initial and suffix-initial semivowels. However, in both morphological environments we are dealing with unproductive or semi-productive alternations limited to specific stems and morphemes, and in some theories we should handle them all as minor lexical alternations.

(P-28) Semivowel-Deletion (optional)

\[ \begin{align*}
\text{[y]} & \rightarrow \emptyset \quad \text{[g]} \\
\end{align*} \]

In certain suffixes and compound finals: Relative /-y/inn/uk/; postposition /-wugj/ ‘still; only’, auxiliary compound final /-w/.

3.30 Stop-Deletion P-29.

We have already dealt with some deletions involving a stop before another consonant. Thus in Palatal-Deletion P-26 we saw deletion of /j/ //j// before a coronal stop.

We need another rule to account for deletion of /j/ //j// before any other consonant. Note /-nin/ /'soft', verbal derivative /-mini-bi/- for /-mini-w/-, also noun /wu/ /'honey-eating material' in case forms Locative /-ama-wulu-dul/, Ergessive /-ama-wulu-bal/, Relative /-ama-wulu-jim/uk/, and Allative-Dative /-ama-wulu-guy/. Note that Hardening P-18 applies to the suffix-

Initial consonant, e.g., /-w/ama-// → /-ba/, before the //j// is deleted.

We also use the symbol /j// for a stop archiphoneme in a prefix or compound initial, where the stop is manifested indirectly by inducing Hardening P-18 and perhaps other effects on the following morpheme, but where the stop never appears on the surface. Such a stop archiphoneme has the same effects as //j//, and if we replace //j// //j// by /j// we will derive the correct forms. Exx. of such morphemes are Benefactive prefix /-wu-// and compound initial /-ba-/ ‘eye’. An exx. of a full word would be /ba-gala-di// → /ba-gala-di/ (P-8) /-ba-gala-di// ‘blind’ (‘eye-bad’).

There is no general deletion of /j// before other consonants; for a more restricted rule deleting /j// in some preconsonantal environments see Palatal-Deletion P-26. There is no general deletion of //x// or //g//, which are not very common before other consonants and are stable in forms where they do occur in this position. The stops /b/ /d/ do not occur in any relevant underlying combination so we have no evidence as to whether they are deleted before another stop.

\[ \begin{align*}
\text{[e]} & \rightarrow \emptyset \quad \text{[c]} \\
\end{align*} \]

The effect of this rule is to delete morpheme-final //j// or //g// when it is not word-final. This is because when there is a following morpheme within the same word, either this morpheme has an underlying initial consonant or else a morpheme-initial consonant is inserted by rule (P-8, P-6).

3.31 Nasal-Deletion P-30.

Velaar nasal //n// and nasal archiphoneme /// (which can be regarded as //n//) are deleted before another nasal consonant. Pronominal prefixes ending in the B morpheme /-wa-an-/ where the evidence for positing underlying alveolar //n// is somewhat indirect and tenuous, show the same treatment before a nasal. There is also reason to believe that these nasals are deleted before (surface) liquids, though not all relevant underlying combinations can be cited in the data.

Exx. involving //n// are //ulan/ /'blood' in case form //wu-wa-miy//- ‘by means of blood’, and some compounds of //ma-// ‘to see’ like //dhalaw-saw//- ‘to see broken-off branch’ with /-dhalaman//. There are no consistent counterparts at boundaries, though in artificially slow and careful speech the //n// is sometimes heard.

Inverse morpheme /-wa-/, a component of many transitive pronominal prefixes, is deleted before other nasals, the available exx. involve following //w//, //w//, /-wa/. Thus MANA /-la-wa-// → /-la-wa-// with no surface effect of the //l// morpheme, so this is homophonous with /-l// MANA /-wa-wa-// → /-wa-wa-//.

Pronominal prefixes ending in B morpheme /-wa-an-// behave like morphemes with final //n// or archiphoneme /// in connection.

P-29 §3.29, §3.30

P-28
with Nasal-Assimilation P-27, and also behave like morphemes ending in these nasals in the present deletion rule. Thus /nman=ma-yi/ → /nman-yi/ 'I will eat it', where /nman-// itself is analysable as /n-a=ma-// with the B morpheme on a more abstract analysis. However, in other cases morpheme-final /n/ remains as such before another nasal, as in /gaim-niri/ 'by means of a vine spur', and in compound /numu=alma-n// 'to have foot shining'.

There are not a great many attested combinations of /n g/, /N/ or /n/ before a (surface) liquid. This is because a following /lh/, /g/, or (in most cases) /r/ will undergo Hardening P-16 after a nasal, so we end up with a nasal-stop sequence. However, there are a few combinations in which /r/ escapes Hardening, and there are also some combinations with following /l/ or /y/, the two liquids which have no Hardening counterpart. In the available combinations, the preceding /n/, /N/, or /n/ is deleted, at least in the most common pronunciation. Indeed, deletion of the nasal in this environment may apply even more generally than before another nasal, since /-man-/ (a Pl derivational prefix or compound initial) normally keeps its /n/ before another nasal but seems to drop it in the usual pronunciation of compound /-man(n)uluha-/ 'to wade as a group'. An ex. with /n g/ is /-yali-ala-/ 'to make (it) louder' with compound initial related to /yaim/ 'voice, sound'.

As noted above, ordinarily morpheme-final /n/ is not deleted before another nasal. Likewise, /n/ is often retained before another nasal; for a more restricted deletion rule in some preconsonantal environments see Palatal-Deletion P-26. Nasals /nh/ and /m/ do not occur in any relevant underlying combination, so we have no evidence for or against their deletability before another nasal. The remaining nasal, retroflexed /n/, is stable before other nasals.

The following is an attempt to summarise the facts.

(P-SO) Nasal-Deletion

a. Nasal → /n/ // _- Lateral [i.e., /l 1 r/]

b. [N] → /n/ // _- Nasal

c. n → /n/ // _-2_a_ _- Nasal

where /-2a-// is the B morpheme in a pronominal prefix

For some of the combinations, if not all, we could also consider an analysis in which the nasal is assimilated in all features to the following nasal or lateral, and then deleted by Geminate-Contraction P-31, to which we now turn.

3.31 Geminate-Contraction P-31.

Ordinarily, when two identical consonants form a cluster, the cluster simplifies to a single consonant. In some cases, like /be/, /ry/, and /3/, we already have rules which account for the contraction, or could easily be modified to do so. However, even those consonants for which no existing rule accounts for deletions undergo Geminate-Contraction.
some speakers the stem is /abl-ya/- with exactly the same paradigm as /yl-ya/- 'to sleep' and can thus be considered to be a synchronic auxiliary compound of it.

3.34 Initial Nasal-Deletion P-33.
There are very few morphemes which need to be set up with an underlying initial sequence of nasal and stop. Excluding one or two possible suffixes of this type, the only important cases are /-nggurya/ 'excrement' and /nggurya/ 'Gunbarbi ritual'. The full form with the nasal pronounced occurs with preceding noun-class prefix, hence /nana-nggurya/ 'excrement' and /wara-nggurya/ 'Gunbarbi dreams', though even here some speakers (especially younger ones) omit the nasal. Word-initially it is usual to drop the nasal: /ngurya/, /gurya/.

(P-33) Initial Nasal-Deletion
Nasal \rightarrow ø // 

There are no other stems beginning with clusters.

The two lexical items just mentioned are borrowings from languages to the south (Wardarang, possibly Maru), but they are established in Nunggubuyu as the basic terms for these meanings.

3.35 Feminine Prefix-Truncation P-34.
The F (feminine) noun-class prefix is /nªara-/ . This prefix, along with the phonologically similar Pl/NARA prefix /wara/-, undergoes contraction to /CV-/ ( /nªai-/, /-wa/-) under certain conditions described later in connection with -Truncation P-36. See §4.7.

However, in addition to that reduction, /nªara/- undergoes a distinct reduction to /nªa/- (with short vowel) before a kin term whose stem includes the prefix /-yan/-, which marks 2nd/3rd person pronominal ('possessor'). Thus we have /nªa-yan-gurun/ 'your mother-in-law', with noun-class marker /nªa-yan-gurun/ instead of */nªara-yan-gurun/ or */nªai-yan-gurun/. We need a special rule to produce the attested sequence /nªa-yan/- . This is not a general rule for the treatment of /nªara/- before a morpheme beginning with /y/, since other noun stems starting with /y/ show the usual surface allomorphs /nªara/- and /ªaka/-, as in /nªara-ritharn-u-nªun/ 'woman of Ritharnu tribe', optional variant /nªai-ritharnu-nªun/- by P-36.

(P-34) Feminine Prefix-Truncation
nªara- \rightarrow nªa- // 

where /nªa/- is the F noun-class prefix and /-yan/- is the 2nd/3rd person pronominal marker for kin terms. [See Table 5-1 in §5.2.]

3.36 Prefix-Truncation P-35.

Under the present rule we group two similar sets of /CV/- allomorphs of noun-class prefixes. First, one of the four demonstrative roots, Immediate /-da/-, has a distinctive set of noun-class prefixes by which what are elsewhere /CV-/ and /CVG-/ prefixes merge as /CVa-/ . Secondly, a similar pattern of /CVa/- prefixes is found with three kin terms.

In the case of /-da/- demonstratives, we list below the noun-class allomorphs in the left-hand column, with the other column showing the full regular forms of the same prefixes with other nouns and other demonstrative pronouns.

with /-da/- elsewhere category

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For a more complete discussion, including some additional irregularities, see Chapter 7 (including Tables 7-2 and 7-3).

The forms used with /-da/- can be derived from the full regular forms used elsewhere by lengthening the first-syllable vowel, and by dropping the second syllable if there is one. There is no straightforward way to derive the "elsewhere" forms from the forms used with /-da/-.

The kin terms in question can co-occur only with the human noun-class prefixes for NGS, NDU, and FGS/FDU. (These kin terms are formed with the person proponent of "possessor," and the Pl is expressed by a special suffix rather than by using the Pl noun-class prefix.) First, there are the two least person sibling terms /murungun/- and /mun-un/-, which mean respectively 'elder sibling' and 'younger sibling'. To mark gender we add noun-class prefixes, giving /a:ga:-murungun/ and /ana:-mun-un/- for 'brother', /na:-muru:-/ and /ana:-mun/- for 'sister'. So far as we can tell, this is the same phonological process seen more elaborately in the forms with /-da-/. There is also one other ex. in kin terms, /nªai-rikar/- 'my (your) mother', cf. unprefixed form /rikar/.

(P-35) Prefix-Truncation

\[ C_{1/2} \rightarrow C_{1/2} \]

The rule is obligatory for the kin terms mentioned; for /-da/- the rule usually applies, but the regular (untruncated) prefix forms are also possible. The rule does not apply to the "punctual" set of noun-class prefixes like NA/NARA /yl/- and MANA /ana/-, which can occur with /-da/- (but not with human nouns such as the kin terms mentioned).

A somewhat similar alternation, that of /guigu/- 'water', prefixed /-a-guigu/- or /ana-guigu/- for expected */a-guigu/- and */ana-guigu/-, is described separately as Length-Shift P-43. The truncation of F /nªa/- to /nªa/- in one type of kin term is dealt with by Feminine Prefix-Truncation P-34 (note that the resulting vowel is short). The optional truncation of /Cara/- noun-class prefixes to /Ga/- before consonant (not affecting
other bisyllabic noun-class prefixes like /mana-/- and /ana-/- is
handled by rV-Truncation P-36. Although there are superficial
similarities among these rules, they differ both in the form of
the truncation and in the morphological or phonological triggering
conditions, and it is unwise to lump them together.

3.37 rV-Truncation P-36.
This rule applies to bi- and trisyllabic pronominal prefixes used
with verbs (or predicate adjectives), and to bisyllabic noun-class
prefixes (there are no trisyllabic ones), optionally deleting a
final /rV/ sequence and giving compensatory lengthening to the
preceeding vowel.

The noun-class prefixes are F/N ara prefix /nara-/- and
Pl/WARA prefix /wara-/- which optionally become /nara-/- and /wara-/-
before a consonant: /nara-/-mari/- or /nara-/-marin/- 'emu'. The variants are very
common, though perhaps the full forms are more common. In the case
of /wara-/- we should note that /wa:-/- is also the regular
"punctual" form of this noun-class prefix (while /yi:/ is the
counterpart of /nara-/-), and in many textual occurrences we cannot
certainly whether we are dealing with punctual /kwa:/ or with
the truncated form /wara:/ from continuous /wara:/.

The truncation also applies to the many pronominal prefixes
used with verbs which end in /rV/, which can here be identified as
a Pl/WARA morpheme (the F/N ara forms in pronominal prefixes do not
have a /rV/ extension). Exx. are JP1/WARA /wuru:-/-, JP1/WARA
/wuru:-/ (see Chapter 9). The verb /=W2u-/ 'to hit, kill' (cf. Reciprocal /=w
2mibi-/ in Nonpast, /=w2mi-ni/-, also /=w2mi-ni/- 'to hit each
other' forming Nonpast2 /=w2mi-ni-ni/-; cannot be described as due
to truncation to another vowel and are treated as cases of
V-Assimilation P-37 (another "basket" rule with several subrules).

Changes like that of /a/ or /u/ to /i/ before a laminoalveolar like
/j/ or before semivowel /y/ are not vowel-to-vowel assimilations
but vowel-to-consonant assimilations and are handled by V-Fronting
P-50. In addition, V-Assimilation P-37 does not deal with length
alternations.

The verb /=w2mu/- 'to hit, kill' (cf. Reciprocal /=w2m1-ni/-
just mentioned, with /u/-/1/-/ by V-Fronting) displays its underly­
ing /u/-/ vowel in Nonpast2 /=u-ma-ni/- (with /u/-/ lost by Homorganic
Semivowel-Deletion P-4). Nonpast1 /=w2mu/- (see MA, Table 11-5
in Chapter 11 for the paradigm). In the Reciprocal Form and also in
Nonpast2 /=w2m1-ni/-, the shift to /i/-/ is due to V-Fronting P-50.
However, there is another form, Pst2 /=w2m1-ni/-, where it would
appear that the root vowel shifts to /i/-/ by assimilation to /i/-/ in
the suffix -ni/. However, other stems ending in /u/-/ avoid this
shift: /w2m1-ni/- 'looked for', /w2m1-ni/- 'wept' (both Pst2),
the demonstrative adverbs /w2-guni/- 'to there' and /w2-guni/-
'to there' (both Allative, see Chapter 7) show irregular forms of
demonstrative roots which elsewhere appear as /ba/- (Anaphoric)
and /wu/- (Distant), respectively. If we take /ba-guni/- as one base Form, we have a simple assimilation to /bu-guni/- (but
contrast /ba-guni/- 'there' from the same root). To get from
/w2-guni/-/ 'to (wu-guni/-/ we can perhaps consider an initial
assimilation to /wu/-/ by V-Assimilation P-37, followed by a
special contraction rule (Adverb-Shortening P-42). This
derivations are opaque and would only be valid on the most adventurously

§3.37, §3.38
There are some other possible cases of assimilation involving Anaphoric /ba-/.

The remaining cases of V-Assimilation involve the component elements of the pronominal prefixes used with verbs (and predicative adjectives). These cases presuppose the abstract analysis of such prefixes presented in Chapter 9, and can be disregarded if we consider the pronominal prefixes to be unsegmentable. If we do adopt the abstract analysis, and thus identify numerous component morphemes within the longer pronominal prefixes, we observe that some such morphemes consistently show V-Assimilation, others never do, and yet others do only in certain combinations.

The component morphemes which always assimilate in vowel quality, and thus must be represented as having an unspecified vowel /i:/, are these: 1ExNonsg /-wi-/ and /-v/-, and 1InNondu /-m/-, Not only Inverse morphemes /-v/-, these become /-a/- and /-m/- by V-Ablaut P-58, but elsewhere acquire their surface vowel quality by V-Assimilation. Thus 1ExPi /-w/ → /-uru-/; 1ExPi → MANAa //V:-i-ma-// → /nana-/, 1ExPi → 3Pl/WARA //nun-ma-// → /numa-/, and 1InPl → 3SgEa //n/ → /nu-u-/.

The component morpheme which we label Nonag can be represented as //a:-//. When it is the final component morpheme in the overall pronominal prefix, it acquires its surface vowel by an allomorphic rule sensitive to morphological factors; for example, it is //w// for transitive subject when following Inverse //N//- §9.11. However, when nonfinal within the pronominal prefix, //w// gets its vowel by V-Assimilation, becoming /a:-//, or by V-Assimilation (other combinations). Thus //V:-// → /-uru-/; //V:-// → /-w// → /-uru-/ (3Pl/WARA, //V:-// → /-uru-/ (3Pl/WARA, etc.

Another component morpheme with similar patterning is 2Nonag //w//. We base the underlying transcription on the one occurrence of the morpheme at the end of the overall pronominal prefix, //n/ → /nana-//, //nuna-//, //nunu-// (1-Pl). Elsewhere we get the familiar pattern with the vowel becoming (actually, remaining) /a/ before Inverse //N//-, and assimilating the vowel quality seen in the following component in other combinations. Thus 2Mdu //na-w// → /-nu-u-/; 2InPl → /-nu-u-/ (3Pl/WARA, etc.).

The component morphemes we have been considering -- 1ExNonag /-wi-/ or /-v/-, 1InNondu /-m/-, Nonag /-w/-, and 2Nonag /-m/- -- differ apparently in whether they always undergo V-Assimilation or only do so when nonfinal in the pronominal prefix. However, these differences are merely a function of the possible positions where the component morphemes can occur; the 1ExNonag and 1InNondu morphemes cannot occur finally, while the two others can. In fact, all four are component morphemes in the pronominal prefixes, and V-Assimilation applies regularly to these morphemes when nonfinal in the pronominal prefix (except where V-Ablaut applies to them, before Inverse //N//).

Some other component morphemes in pronominal prefixes show partial assimilation behaviour. 2SgE morphemes //a:-// (perhaps itself segmentable) assimilates to following //w// (of course it remains with /u/ before a following /a/). Thus //num-n/- → /-n/- for 2SgE → NAa, but //num-n/- → /-n/- for 2SgE → WARA.

§3.8
The /n^6^AR/A morpheme in pronominal prefixes has a predominant allomorph /-n^6^I-/, though /-n^6^u-/ and /-n^6^a-/ occur in object function at the end of the pronominal prefix, as in INs ^AR/A /n^6^u-/ and IL^AR/A /n^6^a-/. In nonfinal position /-n^6^I- is regular in both subject and object function, as in 3NSg/H/ARA ^AR/A /n^6^i-/- and ANs ^AR/A ^AR/A /n^6^i-/- and ANs ^AR/A ^AR/A /n^6^i-/-.

However, /-n^6^I- is replaced by assimilated /-n^-/- before 3NSg object marker /-nu/-, hence 3NSg/H/ARA ^AR/A /n^6^a-/- instead of /-n^6^a-/-.

The 2Ns component morpheme /-n^6^a-/- is ordinarily relatively stable: 2Ns ^AR/A /n^6^u-/ 2Ns ^AR/A /n^6^a-/-, etc. There is, however, one instance of assimilation, namely l I ^AR/A /n^6^u-/- /-n^-/-.

Notice that this assimilation enables surface differentiation of /n^6^a-/- (with 3NSg object) and /n^6^u-/- (with 2Ns object).

However, /-n^-/- is now homophonous with 3NSg/H/ARA ^AR/A /n^6^a-/-, so the assimilation is only of doubtful functional value.

We have seen a number of cases of V-Assimilation in the component morphemes within pronominal prefixes. Some of these morphemes have close counterparts in the system of independent personal pronouns, and we may ask whether the same assimilations are recorded in these independent forms as well.

In the case of 1N^E^AR/A //v//v(i)*/, we have already seen that assimilations do apply in the independent personal pronouns, hence /n^6^-/ 'we(TRXDU) and /n^6^-/ 'us(TRX).

The formally equivalent inclusive pronouns begin with /n^6^-gu-/-, where there is no sign of assimilation. The nonsingular 2Ns person pronouns begin with /n^6^-gu-/- and /n^6^-u-/-, and it is arguable that the initial morpheme is really /n^6^-/ or //v// with assimilation to the /u/ of the following syllable, but there is only indirect evidence (from pronominal prefixes) for this underlying analysis. Similarly, in the third person nonsingular personal pronouns, we get an initial y sequence /n^6^-gu-/-, where we might set up the first element as //v//w// (by analogy to the pronominal prefixes) and allow an assimilation to apply; again, the evidence is indirect.

Our major results are presented as follows:

(P-37) V-Assimilation

a. u → i // /n^6^-ni in the form /n^6^-ni 'hit, killed' (Table 11-6)
b. a(i) → u(i) // /-n^-uni in Allative demonstrative adverbs (§7.13)
c. V → u // /-n^-un^6^- in /bu^6^-yin_un// // /bu_un^6^-/ 'that sort of thing' (applies twice in same form) (§7.25)
d. \{a(i) \} → \{u(i) \} in personal or demonstrative pronouns

The specific cases happen to involve a shift to /a(i) before a nasal. The morphological contexts are the boundary between a verb stem and following suffix, and boundaries among the component morphemes which combine to form pronominal prefixes used with verbs.

First, within the pronominal prefixes we deal with combinations involving inverse //N//, a component morpheme on an abstract analysis of the pronominal prefixes (Chapter 9). There is a set of other component morphemes which, when directly preceding //N//, show conversion of their vowel to /a(i)/. Moreover, this /a(i)/ remains on the surface, resisting the effects of V-Assimilation P-37, which would otherwise apply to these combinations. The preceding morphemes affected are 1N^E^AR/A /n^6^-/ which combines with //N// to produce /na-N//; 1NSg /n^6^-/ which gives
is ablauted to /a/ before this suffix: 

\[ /\text{nya-ngi}/ \] for

\[ /\text{nya-}/ \] and /\text{nga-}/, (see Table 11-6, Chapter 11). This, however, leaves us with another set of forms not easily amenable to such an analysis: Evitative /\text{nya-}/, Past2 /\text{nya-}/, and Causative /\text{nya-nga}/. One analysis is that /\text{nya-}/ is ablauted to /\text{nya-}/ when not followed by augment /\text{-n}/-retaining its (the augment's) /a/ vowel. However, identifying base forms here is difficult, and we could consider the alternative by which /\text{nya-}/ is taken as basic with /\text{nya-}/ due to a special rule (not paralleled by other forms in the language) applying before augment /\text{-n}/- except in the Causative form.

\[ (\text{P-38}) \] V-Ablaut

\[ a \rightarrow a // \text{-n} \]

\[ (\text{P-38}) \] V-Ablaut

\[ a \rightarrow a // \text{-n} \]

\[ \text{where} /\text{-n}/ \] is the inverse morpheme within a pronominal prefix; rule does not apply to /\text{-n}/ (/\text{M}/NA) or /\text{-n}/ / (F/\text{FARA}), and is vacuous with /\text{n}/- / (\text{InDu}) and /\text{n}/- / (\text{InDu}), but applies to all other preceding morphemes.

\[ \text{b.} \quad V \rightarrow a // \text{-n} \]

\[ \text{where} /\text{-n}/ \] is the Past1 or Nonpast1 suffix

\[ \text{c.} \quad V \rightarrow a // \text{-n} \]

\[ \text{where} /\text{-n}/ \] is the Past2 (not Nonpast2) suffix and the verb is /\text{nya-}/ 'to give' or a 'compound of /\text{nya-}/ 'to hit, kill.' taking /\text{M}2/ paradigm

\[ \text{d.} \quad 1 \rightarrow a // \text{-n} \]

\[ \text{where the root is} /\text{nya-}/ 'to sleep' and the suffixes are Evitative /\text{-n}/, Past2 /\text{-r}/ and Causative /\text{-n}/ / (\text{CAE}-)
3.40 Interjection-Formation P-39.

Another rule affecting vowels is a special process applied only to words uttered as interjections. Normally the final vowel is strongly lengthened, with high pitch. The process is distinguished from ordinary stylistic lengthening in narratives by the fact that in the interjection type a \( /u/ \) (sometimes heard just as \( /?/ \)) is added to the final vowel. Thus from noun \( /\text{baba}/ \) 'my father' we get the interjection vocative form \( /\text{baba:::u}/ \).

If the input form ends in vowel plus consonant, the consonant is just dropped and \( /u/ \) added to the vowel. Thus from \( /\text{sigai}/ \) 'my mother' we have vocative interjection \( /\text{sigai:::u}/ \),

Other exx. showing a nonvacovocative noun, and an inflected verb form, are these: \( /\text{furuai:::u}/ \) 'fire' from \( /\text{furua}/ \), and \( /\text{wurir}-\text{na:::u}/ \) 'they are fighting' from \( /\text{wu:=~i-nYji:-na}/ \). The interjection form of these words is used only for a strongly exclamatory force (warnings of immediate danger, etc.).

Verbal root forms like \( /\text{jalg}/ \), related to inflected \( /\text{yalda}/ \) 'to go past', are also interjection-like but do not show the vowel lengthening and addition of \( /u/ \) characteristic of the type of interjections just illustrated.

(P-39) Interjection-Formation

\[ V(1)(C)\# \rightarrow V:::U\# \]

to make an ordinary noun or verb into an interjection.

3.41 RdP-Shortening P-40.

In both the Initial Reduplication rule P-2 and the morphologically restricted Final Reduplication rule P-3, we have already specified that the vowel(s) of the reduplicative segment is(are) short, regardless of the length of the vowel(s) in the input. Thus from \( /\text{yara=ya:-ri}/ \) 'he/she is', we get reduplicated \( /\text{yara-ya:-ri}/ \).

Actually, P-2 as formulated should produce \( */-\text{yara-ya:-ri}/ \).

We first exemplify with these phonological elements. First, the Distant demonstrative root is clearly \( /\text{yuwa}/ \), as in \( /\text{yuwa-gi}/ \), 'there he/she is', \( /\text{yuwa-ni}/ \) 'there it(AIA) is', etc. However, the human nonsingular forms are MDu \( /\text{yuwi-gi}/ \) and FDu \( /\text{yuwi-ni}/ \), and Pl \( /\text{yuwi-}/ \). Here the \( /\text{a}/ \) of \( /\text{yuwa/} \) shows changes in vowel quality due to V-Assimilation P-37 (part d), but also shows shortening. All other forms involving these suffixes also require preceding short vowels, though in cases other than that of \( /\text{yuwa/} \) we cannot demonstrate that the underlying form of the vowel is long.

Within the phonological prefixes used before verbs, we observe shortening before PI \( /-\text{ru}/ \) in \( /\text{yuwa}/ \) in such exx. as \( /\text{lnPn}\text{-}n\text{-}\text{ru}/ \) \( /\text{yuwa}\text{-}\text{ru}/ \). That the initial morpheme in this sequence, \( /\text{lnPn}\text{-}/ \), has underlying long vowel is shown by a number of other phonological prefixes such as \( /\text{Pn}\text{-}\text{ru}/ \) \( /\text{yuwa}\text{-}\text{ru}/ \), and \( /\text{yur}\text{-}\text{ru}/ \). Here the \( /\text{a}/ \) of \( /\text{yuwa/} \) shows changes in vowel quality due to V-Assimilation P-37 (part d), but also shows shortening. All other forms involving these suffixes also require preceding short vowels, though in cases other than that of \( /\text{yuwa/} \) we cannot demonstrate that the underlying form of the vowel is long.

We need a rule shortening a long vowel in a stem preceded by a bisyllabic PI reduplication.

\[ V(1) \rightarrow V \quad /\text{Rdp} = (C)\_\quad \]

where \( /\text{Rdp/} \) is a bisyllabic reduplicative segment added by rule P-2.

3.42 Nonsg-Shortening P-41.

One of the component morphemes within phonological prefixes (Chapter 9) is the PI morpheme \( /-\text{ru}/ \), which occurs in a number of contexts involving nonsingular pronouns. The preceding morpheme always shows a surface short vowel, even where we have reason to think that this vowel is an underlying long vowel (i.e., because it is long in other combinations).

There is a related morpheme \( /-\text{ru}/ \) used in PI independent pronouns (Chapter 6), and associated elements \( /-\text{a}/ \) (from \( /-\text{ru}/ \), see ri-Contraction P-24) for MDu (or MTr) and \( /-\text{n}/ \) for FDu (or FTr). The same forms are used with demonstrative pronouns (§7.2). In all of these cases there is evidence that the preceding vowel must be shortened.

We first exemplify with these phonological elements. First, the Distant demonstrative root is clearly \( /\text{yuwa}/ \), as in \( /\text{yuwa-gi}/ \), 'there he/she is', \( /\text{yuwa-ni}/ \) 'there it(AIA) is', etc. However, the human nonsingular forms are MDu \( /\text{yuwi-gi}/ \) and FDu \( /\text{yuwi-ni}/ \), and Pl \( /\text{yuwi-}/ \). Here the \( /\text{a}/ \) of \( /\text{yuwa}/ \) shows changes in vowel quality due to V-Assimilation P-37 (part d), but also shows shortening. All other forms involving these suffixes also require preceding short vowels, though in cases other than that of \( /\text{yuwa}/ \) we cannot demonstrate that the underlying form of the vowel is long.

Within the phonological prefixes used before verbs, we observe shortening before PI \( /-\text{ru}/ \) in \( /\text{yuwa}/ \) in such exx. as \( /\text{lnPn}\text{-}n\text{-}\text{ru}/ \) \( /\text{yuwa}\text{-}\text{ru}/ \). That the initial morpheme in this sequence, \( /\text{lnPn}\text{-}/ \), has underlying long vowel is shown by a number of other phonological prefixes such as \( /\text{Pn}\text{-}\text{ru}/ \) \( /\text{yuwa}\text{-}\text{ru}/ \), and \( /\text{yur}\text{-}\text{ru}/ \). Here the \( /\text{a}/ \) of \( /\text{yuwa}/ \) shows changes in vowel quality due to V-Assimilation P-37 (part d), but also shows shortening. All other forms involving these suffixes also require preceding short vowels, though in cases other than that of \( /\text{yuwa}/ \) we cannot demonstrate that the underlying form of the vowel is long.

\[ V(1) \rightarrow V \quad /\text{Rdp} = (C)\_\quad \]

where \( /\text{Rdp/} \) is a bisyllabic reduplicative segment added by rule P-2.

3.43 Adverb-Shortening P-42.

The Distant demonstrative stem \( /\text{yuwa}/ \) shows a few minor shortenings or contractions in some of its adverbial derivatives. The Locative

\[ P-40, P-41 \]

§3.41 to §3.43.
adverb is, regularly, /yuwa-gu/. However, the corresponding Centripetal adverb, with suffix /-ala/ added to the Locative, is only occasionally pronounced /yuwa-ga-'/la/, the form we would expect; rather, the usual pronunciation is /yuwa-ga-'/la/ 'from there (to here)'. Note shortening of the root vowel. This also applies to the form of the adverb with an additional noun-class prefix, /an-yuwa-ga-'/la/ (same gloss). We may contrast these forms with cases of the same suffix /-ala/ added to a demonstrative pronominal form of the same root, like /yuwa-git-'/la/ 'there he/she comes', with the same underlying canonical shape but with vowel length normally preserved on the surface.

The Allative adverb related to Distant demonstrative root /yuwa/- is /yuri-gun/ 'to there', parallel in structure to /yuwa-ga-'/la/ (same gloss). This also /bu-guni/ 'to there (Anaphoric), from a different root. In order to convert //yuwa/- into /yu:-/, we first apply V-Assimilation P-37 (part b) to get //yuwa/-, but we need to contract this further to //yu/- by the present rule. In the form with noun-class prefix, I usually heard /an-u-guni/ rather than /an-u:-guni/, though the latter was heard on occasion.

(P-42) Adverb-Shortening
   a. a: /-gar-'/la
      in Centripetal adverbs with root /yuwa/- §7.15
   b. uyu: /-guni
      in unprefixed Allative adverb with /yuwa/- §7.13
   c. uyu: /-guni
      in Allative adverb from /yuwa/- with noun-class prefix present §7.13

1.44 Length-Shift P-43
The noun /gugu/ 'water' has the length pattern shown when no noun-class prefix is present. When there is such a prefix, it appears that the length of the stem-initial vowel is transferred to the final vowel of the prefix /a/-gugu/ or /ana/-gugu/ with ANA class prefixes which show up elsewhere as /a/- and /ana/-.

There are no other nouns which show this transfer. The behaviour of /gugu/ in compounds is indeterminate since it is not attested as compound final and since it is supplanted by /-ar-/- as compound initial.

(P-43) Length-Shift
   a. a-gugu → a:-gugu
   b. ana-gugu → ana:-gugu

1.45 Monosyllable-Lengthening P-44.
Under certain conditions a noun or verb form whose underlying form appears to be //CV:C// is lengthened to //CV:C//. One important class of items to which this rule does not apply are verbal "root forms." These are intersection-like, uninfluenced

§3.43 to §3.45 P-42, P-43

particles with verbal force, often used as adjuncts to full verb forms of the same meaning. Those of //CV// shape do not lengthen, hence //gugu//, associated with //wu-a-// 'to bite'. Even those of //CV// shape resist lengthening, to judge by the example of //wa//, related to //wa-a-//'to arrive'. In this case, the pronunciation involves a nonphonic final aspiration: //wa//. See §12.2.

However, regular inflected verb forms do sometimes lengthen. The Nonpast, of most verbs is formed by changing the stem-final vowel to /]</. (A possible analysis of this is that the suffix is //a//- with the contraction P-40 applying; or we could take the suffix as //a//- with V-Fronting P-50 making the preceding vowel /a/ and with the semivowel then deleted by iy-Contraction P-15.) Thus /bura-//'to put', Nonpast //buri-0//. However, a monosyllabic root like //ma-//'to see', whose underlying short vowel is seen in forms like Past2 //ma-n//, shows lengthened vowel in Nonpast //ma-'/i-//. The same applies to all other //CV// forms (combinations of root with inflectional suffix). When such a verb is the second member of a compound, there is some variation from one stem to another as to whether lengthening occurs (i.e., as to whether Just the root and suffix, or the whole compound stem plus suffix is taken as the basis for computing the input syllabic structure).

It happens that //ma-//'to see' normally does lengthen even in compounds, while auxiliary compounds with //w2a-// 'to hit' usually do not; the shortened Past2 form //lih-x// 'stood' used in some compounds, vs. //lia-x// elsewhere, also does not undergo lengthening. An ex. of lengthening in a compound is //lma-n// 'I will not see (clan) country' (used with negative preverb /yaI//). While, for some stems, compound initials are considered part of the stem and thus block lengthening, pronominal prefixes are disregarded. Monosyllabic suffixes like //ma//- remain short.

Regular inflected verb forms of the shape //CV:C// (including inflectional suffix) do not seem to undergo a complete lengthening of the vowel. Actual pronunciations often seem intermediate between short and long vowels, but I can find no consistently lengthened forms and transcribe these verbs with Past2 //ma-n// 'saw', //wu-a-n// 'hit', //ma-n// 'got'; Nonpast //ma-n// 'will not see', //ma-n// 'will not get'; Past2 //wu-x// 'slept', //lia-x// 'stood'. The vowels in the Past2 exx. just given sound a little longer than the others, on average; but this could be due to low-level factors involving choice of final consonant.

Turning to nouns, we observe that a few nouns of the type //CV// do occur: //gw// 'tooth', //gu// 'tears'. The short-verb type //CV// does not occur. The //CV// nouns retain long vowel in forms with noun-class prefix /mana-ga//, /ana-gu//. However, as compound initials we get //ra// and //ru// with short vowels: /ra-wara// 'to have Irregularly shaped teeth', and /ra-mara-wa// 'to have one's tears drip down'. Since we know that //CV// verbal lengthen to //CV//, it is reasonable to take these nouns as //CV// with a lengthening rule applying to them when not part of compounds.

There are also many nouns for which the independent (uncompounded) form is //CV:C//, as I hear it. I am not aware of any minimal pairs of the type //CV:C// vs. //CV:C// in noun stems, and the stems which do
occur usually have phonetic long vowel. Surface length in such nouns is variable, but this appears to be the case for all of the stems and so it is not (so far as I can determine) a basis for recognising a /CV:C/ stem as opposed to /CV:C/. As with the /CV:/ nouns just mentioned, the /CV:C/ nouns appear to be unaffected by regular affixes, such as noun-class prefixes, but are heard with noun form with long vowel as citation form, and as the head of dictionary entries. (However, because of the many length alternations and because structural vowel length is often indistinct or entirely altered by phrasal intonation contours, vowel length is disregarded in alphabetisation in the dictionary.)

The situation with nouns of the type /CV(:)CC/ is also difficult. For example, I usually heard /wurg/ 'bush fire' with short vowel, and /xhiri/ 'casava tree (Coclosperma)' with long vowel (note that the latter is a probable reduction from a bisyllabic prototype now seen in Ngandi /dhiri:/). Phonetic vowel length is also inconsistent even in such forms, but at least predominant patterns can be gleaned from enough occurrences of each item, and for /CV(:)CC/ stems I attempt a phonemic transcription of length.

If, as indicated above, we adopt in our theoretical model the view that /CV:/ and /CV:C/ nouns have underlying short vowels which are lengthened by rule except in compounds, we leave open the possibility that there may be underlying long vowels in similar stems which remain long in compounds. Indeed, there are some compound initials and derivational prefixes (two categories which are difficult to differentiate) with stable long vowels. For example, one Benefactive allomorph is /-wag-/ and there is a noun-like compound initial /-ya:l-/ which keeps its long vowel in most forms. Moreover, while the majority of /CV:C/ nouns, like /xhiri:/ 'casava tree', do not happen to occur as compound initials, we can cite /mai:/ 'correct kinship relation for marriage', which is usually /mai:/ with long vowel in compounds. However, there are a few apparent instances of /-yai:-/ or /-mai:/ being shortened to /-yaI/- or /-maI/- in compounds, and /-mur/: 'carpaces (upper shell)' shortens its vowel in the form with derivational noun-class prefix, e.g., /-mun/: 'its (ANA class) shell'. There is thus some evidence that our approach (recognising fairly few underlying long vowels, and having short vowels lengthened in some circumstances) does not account for all of the data, and that some facts suggest a countervailing reanalysis with many underlying long vowels which are shortened in compound-initial position.

§3.45

(P.44)

Monosyllable-Lengthening

a. \( V \rightarrow V_i \rightarrow X = C \rightarrow Y \)

where \( Y \) is zero, or a suffix other than a (nonzero) verbal inflectional suffix; the rule is blocked in some combinations where \( X \) is a compound initial or derivational prefix

b. \( V \rightarrow V_i \rightarrow -C \)

In noun stems, where \( Z \) is not a compound final

3.46 Verb-Lengthening P.45

Under certain conditions the final vowel of a verb root or stem is lengthened.

The verb 'to go' is a unique suppletive paradigm with some forms based on /=yama-/ and on /=ya-/ (Table 11-8, Chapter 11). The forms based on the second root are Past\(_2\) /=ya-ngei/, Evitative /=ya-\( \sim \)gan/, and Nonpast\(_2\) /=ya-ri/. There is no regular rule shortening /\( \sim \)/ to /\( \sim \)/, before a cluster like /\( \sim \)/, so we set up the root as /\( \sim \)/ and allow the vowel to become lengthened in /=ya-ri/. This is simply an irregularity of this paradigm: the suffix /-ri/ does not otherwise occur in the language (it is perhaps historically a composite of an augment *-v* associated with this verb and Nonpast\(_2\) /-1/).

The other lengthening process applies to an important set of verb stems ending in /1/ which we call the I\(_2\) and I\(_3\) classes (Table 11-2, §11.2, has paradigm). The lengthening, which is not consistent (and is more common for I\(_2\) than I\(_3\) classes), is found when the stem-final vowel is in an open, nonfinal syllable within the verb form (stem plus inflectional suffix). Thus from /=yamib-/ 'to speak' we have Past\(_2\) /=yamibi-\( -n\)/ and Nonpast\(_2\) /=yamibi-na/, but Past\(_2\) /=yambi-\( -n\)/, Nonpast\(_2\) /=yamam-ab-\( -n\)/, and (usually) Nonpast\(_3\) /=yambi-\( -n\)/. The Evitative forms, such as /=yambil-\( -n\)/, are not affected, suggesting either that the /-n\( -u\)/ or /-n\( -an\)/ Evit suffix has a distinct morphological status, or that the lengthening applies specifically when the following inflectional suffix is of /CV/ (not /CV:CV/).

This lengthening process does not regularly apply to stem-final /a/ or /\( \sim \)/, although they occur in similar paradigms sharing the suffixes /-nt/ (Past\(_2\)) and /-\( \sim \)a/ (Nonpast\(_2\)), just seen with lengthened stem-final /1/. Thus /=samank-a/- 'dances' and /=sarn-\( \sim \)/ 'abandons' (Nonpast\(_3\)). What seems to be going on here is that the lengthening of /1/ in this position is by analogy to cases involving Reflexive suffix /-1-/ (where the long vowel is arguably regular by VY-Compression P.49. For example, the Refl of /=madbar-\( \sim \)/ 'to spill (nonliquid)' is /=madbar-\( \sim \)-\( -1\)/, and long vowel in forms like /=madbar-\( \sim \)/ (Past\(_2\)) arguably involves contraction of /-1/ to /-\( \sim \)/ (in open syllable). The suggestion is that the distinction between stems with original final /1/ and Refl stems with added suffix /-1-/ is blurry and that Refl length patterns are being optionally extended to other stem-final /1/.

P.44

§3.45, §3.46

91
It should be noted that the Past 2 of /\ma\mu-/' to hit, kill', 
/\ma\mu-i-n/-, does not undergo lengthening. It is thus distinct from 
the Past 2 of its own Refl form /\ma\mu-i\'i-n/- from /\ma\mu-i-n/-.

(P-45) Verb-Lengthening

a. \ma\mu-a \rightarrow \ma\mu-a/- 'yi

(b) 1 \rightarrow i: //CV(\times)#

where /CV/ is inflectional suffix in verb

(rule does not apply to simple M1/M2 class forms)

3.47 V-Truncation P-46.

The regular (inflectional) noun-class prefixes, used with independent

nouns and with most demonstratives, include some monosyllabic

prefixes (/\ma/-, /\yi/-, /\a/-) and several bisyllabic ones (/\ma\ma/-, 
/n\ma\ma/-, /\ana/-, /\ana/-, /\ana/-). The bisyllabic prefixes are

subject to a number of rules shortening them in one way or another.

Feminine Prefix-Truncation P-34 shortens P6g /n\ma\ma/- to /\a/-

before some kin terms. Prefix-Truncation P-35 converts all noun-class

prefixes to /CV/- shape before one of the demonstrative roots. See §4.7.

In this section we consider yet another distinct rule of this

type. This deletes the final vowel of a bisyllabic noun-class

prefix when followed by a morpheme beginning in a high vowel /\a/

or /\u/, but not /\a/. Thus from //ana-\mu-wua// we eventually get

/an-\mu-wua// 'named (noun of ANA class)'. Were it not for this

deletion, the sequence //a-u// would have combined to form a long

vowel by V-Contraction P-49. In this example the second prefix is a
derivational (inner) noun-class prefix //\a-G//, used with WARA

as well as ANA class derivatives, and combinations involving this

prefix are the most frequent instances of the deletion (truncation)

rule. However, we see the rule also applying in cases like

//n\ma\ma-\mu-gu-ra-yu// 'woman of In\ma\ma-gu-ra-yu//

(Groot Eylant Aboriginal population)' and //ana-in\ma\ma//

/an-in\ma\ma// 'In\ma\ma-gu-ra (Anindilyakwa) language'.

When the initial vowel is /\a/, this truncation does not occur.

Instead, the final /\a/ of the noun-class prefix and this stem-

(or prefix)-initial vowel undergo V-Contraction P-49, producing a long

/a/, as in //ana-\ma// ana- 'the ground'. It

should be noted that nouns beginning with /\a/ are very common, much

more so than those beginning with other vowels.

A similar rule applies in verbal morphology. There are many

bisyllabic pronominal prefixes, and some following stems beginning

with underlying high vowel, but V-Contraction P-49 rather than

truncation applies, producing a long vowel: //n\ma\ma-\ma\ma-na//

/n\ma\ma-na// 'I am hitting (killing) them'.

(P-45) V-Truncation

\[ V \rightarrow \emptyset //CV(\times)# \]

at the end of a noun-class prefix

§3.46, §3.47

P-45

3.48 yi-Elision P-47.

The verb 'to give', for which /\yi/- is the citation form (but

which is very different in inflection from /\yi/- 'to sleep'),

has forms such as /\yi-\yi// (Nonpast1) and /\yi-\a// (Nonpast2), from

/\yi-\yi// and /\yi-\a//, where the root-initial semivowel has been

deleted by Homorganic Semivowel-Deletion P-9. See Table 11-7.

The Nonpast form /\yi-\yi// is in question here. A bisyllabic

representation is indicated by such exx. as //n\ma\ma-\yi-\yi//

/'I will give (something) to it (ANA class)' where

Pronominal d-Insertion P-20 has applied (/\a/ and

lengthening the following root-initial vowel). All other forms

of /\yi-\yi// with preceding prefix likewise show outputs

compatible with this bisyllabic underlying representation, though

V-Truncation P-49 applies at the = boundary in most exx.

However, there is also a /\a/- pronominal prefix, used when

both subject and object (in a transitive combination) are in low-

ranking noun classes (ANA, MAMA), and occasionally as optional

replacement for other nonhuman-nonhuman prefixes. When this /\a/-

prefix occurs with /\yi-\yi/, the result is not */\yi-\yi-\yi// as we

would expect (with low-level initial semivowel inserted by P-5).

Instead, we get just */\yi-\yi-\yi// 'it gives (something) to it' with

only one syllable. (It is possible that in deliberate speech the

bisyllabic form is allowed, but I have not heard it.) We therefore

seen to have an isolated haplology rule.

(P-47) yi-Elision

\[ y\rightarrow \emptyset //\a-\emptyset \]

where the deleted sequence is the root 'to give'

and the /\yi/- in the environment is the Nonpast2

inflectional suffix

3.49 w\ma-Contraction P-48.

Under the abstract internal analysis of pronominal prefixes presented

in Chapter 9, we recognise a morpheme //\ma// which characterises

the 'B' series of nonpast pronominal prefixes and is absent from the 'A'

series (the two groups being associated with different tense-aspect-

mood categories). For further complications on the distribution of

the morpheme see Chapter 9.

Some exx. of A vs. B pronominal prefixes:

A       B
\n\a\n\mu// /\ma\m// L3g
\n\a\n\mu// /\ma\m// \na\n\a// ANA
\n\a\n\mu// /\ma\m// J3l/WARA \rightarrow L3g

We represent these particular B forms as /\ma\ma-\ma//, /\ma\ma-\ma-\a//, and /\ma\ma-\ma-\a//. Each differs from the A

form by adding //\ma//, which follows 3rd and 2nd person markers

but precedes 3rd person markers, and also follows Inverse //\ma//.

The optional dropping of word-initial //\ma// seen in the ANA

form is handled by Prefixal w\ma-Deletion P-11. The only remaining

phonological problem is that when the //\ma// in deleted intercalary-

(3) also by P-11), we should expect a long vowel after the

(P-47) §3.48, §3.49 93
application of VV-contraction P-49; instead, as the 13g form shows, we get a short vowel when the underlying preceding vowel is short. On the other hand, when the preceding vowel is long the surface vowel is also long, hence //νw-Va-AN-MI-// → //νsMI-// in EXMDu-a. We therefore either need a modified version of VV-contraction P-249 (which in most other combinations always produces a long vowel), or else an additional rule. We adopt the latter course.

A satisfactory rule for the present case is one which simply deletes the //a// of the //w-an-// prefix when (after deletion of the //w// by P-1) directly preceded by another vowel. The rule deleting //a// must be fairly late not only in order to insure that it follows P-11 but also because in such forms as the EXMDu-a example just given, deletion of //a// follows the operation of V-assimilation P-37 (part f), which gives the unspecified underlying //v//1; its surface //a//1 quality.

(P-48) ws-an-contraction

\[ a \rightarrow \emptyset \quad //v-an-// \]

where //an-// from earlier //w-an-// is the 'b' morpheme in a pronominal prefix.

3.50 VV-contraction P-49.

This is the most general rule applying to sequences of vowels which come together over a morpheme boundary. Such underlying clusters are common, because many noun and verb stems begin and/or end in vowels; most prefixes and some verbal suffixes contain vowels which may contract with adjacent stem vowels.

There are some other phonological processes which prevent P-49 from applying as formulated below. The combination of a noun-class prefix like //n're// (13g/113ara) and a following stem beginning with high vowel //u///1 is handled by V-truncation P-46. We have just seen, in P-48 (above), another rule applying in place of P-49. However, we could argue that P-46 and P-48 are really just minor variants of the more general rule P-49 (P-46 and P-48 are needed basically because P-49 would give a long output vowel as formulated below). Other rules which prevent P-49 from applying by inserting a nonsyllabic segment between the two vowels are w-insertion P-7 and w-insertion P-6, both limited to a handful of morphemes.

The basic outputs are the following in cases of boundaries between prefix and stem (noun or verb) or between stems in compounds (see below for special remarks on stem-suffix boundaries):

- **geminates**: //uA// → //a//, //uI// → //aI//, //uU// → //u//
- **combinations involving //a//**: //a// → //a//,
  - //aI// → //aI//
  - //uI// → //uI// or //aI//
  - //u// → //u// or //a//
- **combinations of //a// and //u//**: //a// → //u//, //u// → //a//.

The same outputs are obtained when the second of the two vowels is long.

The treatment of geminate (identical) vowel sequences is no surprise. Exx. of verbs are //n-an=bl-n// → //n'ai=bl-n// 'I jumped, shifted'. In nominal morphology, the apostrophe ' indicates that the contraction has occurred at the boundary; //n=1a=-gala-GL-1-n// → //n'ai=gala-GL-1-n// 'he took a shortcut' (for the moment disregard the second contraction here in the suffix complex); and //n-an=anu-/>ma-na// → //n-an=anu-/>ma-na// (P-4) → //n'unu=/>ma-na// 'I am hitting him'. In nominal morphology, the only underlying geminate cluster that occurs at prefix-stem boundary is //a// plus //a//, as in //ana-aban// → //ana=ban// 'the ground'. As the display on the preceding page (bottom) indicates, when one of the input vowels is //i// this is usually the quality of the resulting long output vowel. This is consistently the case with //ma// or //a// as input. For example, when a pronominal prefix like //n'ma// //nI// precedes one of the many verbs which begin with //a// or //u//, the result is //o//, thus //n'm-/>i=bl-n// → //n'mai=bl-n// 'he jumped'. There are only a few verbs that begin with //i//, but there are some and their number form //eu// if we add compounds beginning with compound initial //i/-/ 'word, truth'. If we combine a verb stem with a pronominal prefix ending in //a// we again get //i//, hence //n'manba=/>jgn-jI// → //n'manbi=/>jgn-jI// 'I will take them (dogs, WARA class) hunting' (Text 22).

When the input is //u// or //u/, the result is variable. Let us begin with //u//, which occurs when a pronominal prefix ending in //u// is followed by a verb stem beginning in //i// like those just mentioned (preceding paragraph). The available data suggest that the following distribution of the outputs //i// and //u//, depending principally on the preceding segments in the pronominal prefix: //i// as output when the prefix is or ends in ANA class marker //w=/>// (when not hardened to //wU// by Hardening P-18), P1 morpheme //w=/>-//, or Nonsg morpheme //w=/>-// (the latter, in the form not yet allowed to happen to occur in hardened form //wU//). The //u// output, on the other hand, is attested with pronominal prefix ending in //wU// (hardened from ANA morpheme //w=/>-//, and is regular with prefixes ending in MSg //w=/>-// or EXMDu-a //w=/>-//, except that when the entire pronominal prefix is multisyllabic (and may have elements) the following quality of the final underlying vowel retained in earlier syllables by V-assimilation P-39) we can get //i// from //nu// or //nuU//.

Exx.: //n'anu=/>gana-n// → //n'unu=/>gana-n// 'I completed it' (form the exx. with //nu//, see Text 75.2.4); //n'amun=/>gala-GL-1-/>n// → //n'ambi=/>gala-GL-1-/>n// (ExP) will take shortcut' (disregard phonology of suffix complex where //bu// in the prefix is from //w=/>-//; //n'munu=/>gana-GL-1-/>n// 'We(ExP) took shortcut'; //an=/>gu=/>mamala-maga// → //an=/>gu=/>mamala-maga// 'the words //i///-//j// will not be pleasant' (Text 65.3.3) → //an=/>gu=/>mamala-maga// (ExP).

94

\[3.49, 3.50\]
There are also some surface minimal pairs involving prefixes that end in MSg/NgARA -ngu- (object) vs. FSg/NgARA -ngi- (subject). By having /u/ become /u:/ in such cases, while /ii/ of course becomes /i:/, such prefixal distinctions are maintained (with no loss of information about the following verb stem, as it turns out). In the case of a long pronominal prefix like /ambum-/, from /wu-/-nu-/-mu-/ in the abstract analysis of Chapter 9, functional considerations are no longer sufficient uniquely to characterise the prefix. For the other pronominal-prefix morphemes which show //u// -> /i/, thus losing the underlying quality of the prefix-final vowel, it turns out that few or no cases of undesirable (ambiguity-creating) surface neutralisations result.

The underlying sequence //iu// is rare. Stem-initial //u// occurs only in a few paradigmatic forms of //mu-u// ‘to hit, kill’ when Homorganic Sonorant-Vowel-Deletion P-4 deletes the //u//, as in Nonpast //nwama- ma//. Elicited exx, with such forms preceded by a pronominal prefix ending in //u//, generally show //a// as output vowel, but with //u// as an alternative option. Thus from //n'amba-ma-/-ma// we usually get //n'amba-ma-/-ma// ‘I am hitting it’(NA class), contrasting with //n'amba-ma-/-ma// ‘I am hitting him’, but the distinction is not rigidly maintained. If the elicited material is representative of normal usage, it is consistent with the functional considerations of the long vowel above.

We now consider the remaining class of vocalic sequences at the prefix-stem boundary, //a// and //u//. In these cases, the output vowel quality is that of the second input vowel (recall that with /u/ and /i/ it is usually the quality of the first input vowel which survives). The //a// cluster occurs both in verbs and demonstratives (and, in one problematic type, with nouns), while //ii// is a much more common combination with verbs only. (As usual, in this context we classify as “verbs” all forms with the pronominal prefixes associated with verbs, thus including some kinds of predicate adjective.)

The verbal exx. of //n// are combinations involving the few verbs like //wu-ma-na// ‘hits’ (see two paragraphs up), when preceded by a prefix ending in //a//. The output //u// is observed in //waru=ma-ma// -> //waru=-ma-ma// ‘They are hitting them’ and //wam=ma-ma// -> //wam=-ma-ma// ‘I will hit you’. With demonstratives some combinations of //a// and following //u// are simplified to just //a// by V-Truncation P-46 (deleting the //a// with no effect on the prefix, but with a monosyllabic prefix this does not occur and the regular contraction to //a// is found in forms like //na-uba-gi// -> //nu:-ba-gi// ‘that(MSg, Anaphoric)’.

When the prefix consists solely of ANA noun-class form //a// (punctual prefix series) and this is followed by stem-initial //u// (or derivational noun-class prefix //a//), the situation is not so straightforward. In the high-frequency forms //a-uba-n// ‘that(ANA, Anaphoric)’, which is also the basis for several adverbial formations with further suffixation, my textual transcriptions show //or-/ba-n//. This represents a range of surface pronunciations including //wbanani// with an unusual diphthong-like articulation. In the case of nouns with the same prefix //a//- followed by derivational prefix //wa//- similar articulations may result but more often the prefix is just omitted (which is syntactically easier for nouns than for demonstrative pronouns, whose prefixless forms have a special meaning, normally predicative), or else the derivational prefix takes an allomorph //wa-//- resulting in bisyllabic //wau//... on the surface. It is apparent that speakers are somewhat uncomfortable with this combination of //a//-prefix and //wa-//- and pronunciation is somewhat inconsistent.

The remaining underlying sequence, //ua//, occurs commonly in verbs (but not other word classes) when a pronominal prefix ending in //a// is followed by one of the numerous -a-contraction forms of the pronominal prefix ending in //a//. Thus //n'anamNyru-n// -> //n'anamNyru-n// ‘I left (abandoned) him’, //wumabu-n// -> //waru=-mbu-n// ‘I hit’. The changes //ua// -> //u// and //ua// -> //ai//, with the second input vowel quality predominating, appear to violate the generalisation above that functional factors favour retention of the quality of the first input vowel. However, if we examine the pronominal prefixes of Chapter 9, we find relatively few minimal pairs distinguished only by having final //a// vs. //u//, these are the ones threatened with surface merger, since final //a// in the prefix regularly produces output vowel //a//. For example, we have //wama=ana// ‘wa-’-3Pl, but here even if the prefix vowel is disqualified by V-contraction we can usually identify it since //wa// occurs with intransitive stems and //wa//- with transitive and since //w// occurs in the ‘A’ series of tense-aspect-mood while //wa//- is in the ‘B’ series. The remaining minimal pairs are //ma// vs. //ma//, //n'anu/-/ vs. //2Pl// //n'=anu/-/, //1ExPl// or //1ExPl// or //1ExPl// or //1ExPl//, //n'amba/-/ vs. //1Pl// //n'=amba/-/, //1Pl// or //1Pl// or //1Pl// or //1Pl//, //n'amba/-/ vs. //1Pl// //n'=amba/-/. These are, for the most part, highly marked and low-frequency prefixes, and the occasional surface homophony which may result when the verb begins with //a// is not a major functional problem.
and some verbal derivational suffixes like Reciprocal /-nɔj/- and Causative /-ja/-). However, the following are suffixes which begin in an underlying vowel in the analysis used here:

with demonstratives: /-al/, /-alt/, which are always preceded by a vowel, show the regular contractions seen above:

//a/ and /a/ become /a/, while /ia/ becomes /i/. Thus //da-ru-al// → //daru-ia// 'there(Imm) they come' but //da-ni-ai// → //danii-ia// 'there(Imm) it(ANA) goes'. For the remaining suffixes just listed, all of which consist of a single vowel and which always follow a stem ending in a vowel, the output contracted vowel does not necessarily follow the rules given above; rather, the suffix vowel quality is always that of the output vowel. Of course, this increases the salience of the suffix category (and rarely creates homophony involving identity of preceding stem).

With demonstratives, Concrete /-u/ always gives output /u/, hence //da-ni-u// → //da-nu-i// 'that(Imm Concrete ANA)', //da-na-a// → //da-wa-u// 'that(Imm Concrete WARa)', See §7.6.

With personal pronouns, Oblique /-i/ and Predicative /-e/ occur after these other suffixes: KDa //ni-/, PDA //ni-/-i/, and P/WARa/ANA/WARa //wa-/. With the latter, suffix /-i/ is seen in //mu-ni-i// → //munii-i// 'we(Ext1, Oblique stem)'. An ex. of /-e/ is //ni-ni-e// → //ninii-e// 'it(Ima) is ours(Exomes). The contraction /-ia// → /-i/ does not occur in the prefix-stem contraction discussed earlier. (For personal pronouns see Table 6-1 in §6.2.)

The verbal suffixes listed above are generally each limited to a few verb classes, except for the Reflexive //a//. The //a// suffixes occur with stems that already end in /-a/-, producing output /-a/- with some suffix //a//, the output /-a/- can be produced easily by identifying //a// as //a//. However, since there is no other direct evidence as to the quality of the suffix vowel, we could also set it up conservatively as /-a// with unspecified vowel.

Similarly, the two suffixes given above as /-a// occur only after stems already ending in /-a/, producing output /-a/-.

Given //a//, we can identify /-a// as //a//, or perhaps as unspecified //a//. Since there is a rough similarity between

the morphological distributions of the //u// and //a// suffixes shown above, it would not be unreasonable to regard them as the same morpheme, so we would set up a Past2 //a// now applying to eight verb classes, and other //a// suffixes for other suffixal categories.

In any event, these //a// and //u// suffixes do not tell us much about how VV-Contraction works, since all of the actual combinations involve geminate vowels, which are the least interesting in helping us understand which vowel quality survives (if we set up //a// suffixes, we would either have an early assimilation rule converting //a// into //u// or //a// as appropriate, or else a slight technical modification in the VV-Contraction rule).

The more interesting verbal suffixes are thus Nonpast2 //a// and Reflexive //a//. The first of these occurs with the A2 class, a verbal class ending in a somewhat variable surface vowel, but for which underlying stem-final //a// rather than //I// is the best choice (Table 11-1, Chapter 11) in the sense that the surface forms with stem-final //I// can be plausibly explained as due to V-Fronting P-50 before a "palatal"-type consonant. Thus //maa// 'to call, shout' has Past2 //maa-nI// and Evitative //maa-I//, but Past2 //maa-nI// with the laminoalveolar //I// apparently affecting the stem-final vowel by P-50. If we accept the underlying representation with stem-final //I//, the Nonpast2 form //maa-nI// would seem to require a representation //maa-I//, with contraction of //I// to //I//. This is all or the regular output for //a// in all other morphological positions described above. However, identifying the stem-final underlying vowel as //I// is not unambiguously dictated by the paradigm of A2 verbs, and one could even set up base forms like //maa-I// with ablaut rules accounting for the surface form //maa-I// in the Past2 and Evitative. Moreover, there is a suspicious resemblance between the Nonpast2 //maa-I// and the Nonpast2 form shown above as //I// with a few verbs like //maa-nI// 'to carry over shoulder', Nonpast2 //maa-mI// (the verb class in B4). If we set up //maa// as base for A2-class verbs, we could get the Nonpast2 of both A2 and RA verbs by setting up a suffix //a// which combines with a preceding vowel to give a long output vowel with the quality of the first vowel. The Reflexive suffix //a// is productive and can be added to almost any transitive verb with which it is semantically compatible (except for a handful of monosyllabic verbs). The resulting vowel is always /I// or /I/, so the quality of the suffix vowel is decisive for the output vowel. Thus //maa// 'to leave, abandon' produce //maa-I//, //maa-I// → //Refl//maa//. The contracted vowel is long when followed by a noninflectional suffix: Past2 //maa-nI//, Nonpast //maa//. It is short before //I// and //I// inflectional suffixes. Thus //maa// 'to leave' has this Refl paradigm:

//maa-I// Past1
//maa-nI// Past2
//maa-I// Nonpast1
//maa-nI// Nonpast2
//maa-I// Nonpast3
//maa-nI// Evitative
We can formulate the VV-Contraction rule as shown below. In the cases we have described, the first of the two underlying vowels always happens to be short. No noun or verb root ends in an underlying long vowel (except, doubtfully, some monosyllabic roots, and these do not occur in VV-Contraction situations). Among prefixes, final long vowel is common only in pronominal prefixes before verbs due to V-Truncation P-36, and this rule applies (normally) only before a consonant (i.e., not in a combination to which VV-Contraction might apply). The exception is one of the noun-class prefixes, punctual series NA or NARA prefix /y1/-, used with nouns (not verbs or personal pronouns). There are combinations of this prefix with stems starting in /a/, /u/, /i/, but VV-Contraction does not apply to these forms; instead, either w-Insertion P-7 or y-Insertion P-10 applies, putting in an epenthetic semivowel. From this discussion it is not determinable whether VV-Contraction should be formulated in such a way as to explicitly to exclude application to combinations of an underlying long vowel followed by another (long or short) vowel, or whether we need not specify underlying length of the input vowels, relying instead on P-7 and P-10 (and appropriate rule ordering) to account for the data. To be safe, we will specify that the first input vowel for VV-Contraction be short.

(P-49) VV-Contraction

a. V-1- → \{ 1'-- // CV- \\
               1'-- // CVC- \}
   where //1// is the Reflexive suffix ($\S$10.5)

b. V₁V₂(1) → V₁1'

c. V₁V₂(1) → V₂1'
   where //V₂(1)\ is a suffix by itself

d. uV₁(1) → V₁1'
   u=σ(1) → a1'
   I-V₁(1) → i1'
   u-I(1) → u1'
   \{ 1'-- when first morpheme is prefix ending in /gu/, or one of certain short prefixes ending in /mu/ or /nu/ \\
        i1'-- otherwise—that is, with longer prefixes ending in /mu/ or /nu/ , and with prefixes ending in /wu/, /ru/, /bu/ \}

Note: parts (a) to (d) apply in the order shown; the first subrule which applies to a given underlying sequence pre-empts other subrules

3.51 V-Fronting P-50.

This is a sporadic rule by which a back vowel becomes /i/ under the influence of a following palatal semivowel /y/ or laminoalveolar /J/ or /ŋ/; we may refer loosely to these consonants as "palatal-type" consonants in this context. The fronting rule is productive, but does turn up in connection with several specific suffixes. We must therefore divide the rule up into several subrules each applying to a very specific combination type.

First, there is an inflectional suffix /-n/ found with several verb classes as Past, and/or Nonpast, the details depending on the inflectional class (see paradigms in the tables in Chapter 11). In addition to cases where the preceding stem-final vowel is already /i/, in some verb classes we see stem-final /a/ or /u/ becoming surface /i/ before this suffix. Stem-final /a/ undergoes this fronting in class A2, A3, A4, RA, and /ma/-th-. as /ma/-n/- such before seen for /a/-n/- such before seen for class A2 and some other classes in which the relevant forms are really based on A1 endings (e.g., after an intervening augment) as with YA, /ma/-n/-, MA1, MA2, and the irregular paradigms seen in Tables 11-7 and 11-8. One such example is /maga-n/-/ 'spoke' (A1). The number of verbs ending in //a// which can take /-n// suffix is limited, but again we find variation in the forms; /u// fronts to /i/ in the case of /mugi-n/- /'wept' (U1), /mgi-n/- /'will hit' (MA1), and further derivatives of the latter stem (MA1, MA2); however, /u/ is retained before /-n/ suffix in U1, U2, and NMA2, an ex. being /maru-n/- 'abandoned; will abandon' (U2). For some additional verb classes like N and U1, the relevant suffix does not occur.

Another relevant suffix with many of these same verbs is Reciprocal /-n1/-, which occurs with most transitives and a few intransitives. The pattern of fronting with /-n1/- is roughly the same as seen for /-n//, but there are some differences. The two big /a/-final classes, A1 and A2, are consistent with their behaviour before /-n/; thus A1 realizes shifting to /i/ before /-n1/- or /-n//, while A2 shifts to /i/ before both suffixes; A1 /-maga-n1/- /'hit each other' A2 /-mgi-n1/- /'to call out to each other'. However, this time A1 joins A2 instead of A3; we have A3 /-liharmi-n/- /'chased' and further derivatives of the latter stem /-n/- /'to chase each other'. Other cases of /a/- shifting to /i/ before /-n1/- are seen in classes associated morphologically with A1, namely RA, YA, and augmented forms of /-m/- and /-n/, but also (surprisingly) with an augmented form in NMA2, the augment otherwise taking A1 endings. Retention of /a/ before /-n1/- is in addition to the big A1 class, in YA (where the augment is used before /-n1/-), but also in the N class and with some high-frequency irregular verbs (Table 11-7). As for stems which end in /u/ when followed by Reciprocal /-n1/-, U1 does give /mari-n1/- /'abandon each other' consistent with /maru-n/- /'abandoned', but U1 shows /balhi-n1/- /'cut each other up' despite having /abalhi-n/- /'to cut each other up'; U1 has no Recip form, but U2 retains /u/ in /magu-n1/- /'look for each other'; fronting occurs in MA1 and MA2, hence /ma1-n1/- /'hit each other', but fails to occur with
the other monosyllabic stems ending in /u/ (Table 11-3).

Some other possible exx. of V-Fronting at stem-suffix boundaries in inflected verbs occur if we recognize //y/ as the underlying form of a suffix found in most verb classes as the Nonpast, and with a handful also as Past. There are, however, some difficulties in determining what exactly the base form is here. In the small number of relevant Past exx., the suffix does seem fairly clearly to be //y/; the verbs in question are of the classes NA1 and NA2 (Forms, Table 11-5). Thus we have NA2 stem /-y/- (or /-y/-) with variable vowel, if you wish, Past /-y/-, and NA1 stems /-la/- and /-bili-/- each have variant forms, /-la-/- or /-li-/-, 'stood' (the second form typical of compounds), /-biyla-/- or /-bilihi-/-, 'was tilted' (on the //y/-//lh/ variation see P-32). From these forms it looks as though we have underlying //a-// which may simplify to //l-/-, presumably via V-Fronting to //y/-/ with later application of 1-y-Contraction P-15. The fronting applies when the stem (including compound initials and the like, but not the regular monosyllabic inflectional prefix) has at least two syllables, with some restrictions and some free variation. This analysis accounts well with the data from the larger NA1 class, which closely approximates the NA2 paradigm but consists entirely of non-monosyllabic roots, and has consistent Past //y/-/ in //li-/-, e.g., /-bur-/- 'to sit'. At any rate, with ordinary generative assumptions we can make a good job of handling up all of these Past, suffixes as underlying forms with //y/-/, with a V-Fronting rule applying always in NA1, and sometimes in NA2.

The much larger number of cases of Nonpast //y/-/ occurring with all stems ending in /a/ or /i/ and some ending in /u/, can perhaps also be handled with the same //y/-/ which we call the suffix though in this case V-Fronting and 1-y-Contraction always occur so we never see the suffix in its supposed underlying form. An ex. is /-wad-/ 'to call', Nonpast /-adi-/ which we could set up as /-wady-/ //wad-// //adi-// (P-50) = /-wad-// (P-15); for other forms see paradigms of classes A1, A2, A3, and A4, of which most of the augmented classes; even monosyllabic roots not ending in /u/ show this Nonpast type though some of them resist V-Fronting in other inflected forms (see Table 11-7, e.g., /-ma-/). The only alternative Nonpast form is /-ay/-, attested for certain verbs ending in /u/, namely /-u-/ 'to give' Table 11-7; U, has this as an alternative to /-ay/-/ which would show the suffix should be set up as //u/-/ here, hence //u-w-/ //u-/- by VV-Contraction P-49.

Since the //y/-//Nonpast suffix never shows up on the surface with the monosyllabic intact, and since these which have /-ay/-/ as surface Nonpast include some classes (like A1) which resist V-Fronting in several other forms, the analysis just presented must be taken with some salt.

The regular Causative suffix with verbs, usually added to intransitive stems, may also cause V-Fronting of stem-final /a/ or /u/. In all attested forms the preceding vowel must be /i/, so we assume that V-Fronting is rigorous in this instance. An ex. is /-am-/ //am-/ 'to dance (totem)' from /-am-/ //am-/ 'to dance' (A1).

Other root classes with similar forms are A2, A3, A4, A5, A6, A7, A8, and some of the augmented classes like NA1. It would be nice to have more information on the treatment of stem-final /u/ in causatives, but since several of the relevant roots are already transitive it was not possible to elicit causatives. In any event, the available data suggest that V-Fronting or //ya/-/ before Causative //ja/-/ is invariable and thus obligatory.

A kind of special case of the above is seen in //an-baj-/ 'other', //an-bij-ja-/ 'to change (something)'. Formally this is not really a causative with //ja/-/, rather a factitive with suffix //-a/-/, undergoing Hardening P-18 after a stem-final stop stop, and the Factitive suffix has no effect on the vocalism of roots (§10.9), and indeed for this stem there is an alternative //an-baj-ja-/.

It would appear that //an-bij-ja-/ represents an idiosyncratic case of fronting of the suffix, perhaps by analogy to the cases with Causative //ja/-/ and //an-baj-ja-/ the analogy facilitated by the fact that //an-ba/-/ ends in //j/. Another suffix which can be added to a verb and which may cause fronting to apply is //ya/-/ which occurs with a few verbs to produce an adjectival noun, or less often an adjectival nominal; in the latter sense there is also a variant -//y/-/. Since these suffixes are not productive we cannot go through the various verb classes and pull out exx. We note, however, that in certain combinations we seem to have fronting of stem-final vowel //u/-/ to //i/-/, thus //yegay-/-/ to //gai-/-/ in //gai-/-/, 'first one (to be somewhere or do something)'. However, observe also lack of fronting in //duma/-/ 'to be black', adjectival //du-duma/-/ 'black'. There are also a couple of cases where the stem-final vowel shows a variant //u/-/ before //g-/ and //yegay-/-/, e.g., in //yegay-/-/ and //yiegay-/-/ (§7.25 offers discussion and additional minor variants) Th...
the other cases of V-Fronting dealt with in the present section involve back vowels fronted to /i/ before "palatal-type" consonants without reference to the consonant preceding them. In addition, the forms /yir-jinYun g/ and /yir-junYun g/ can occur with noun-class prefix -j-(+2), like demonstrative adverbs, and in this case we find the root-initial /y/ dropping out: /an-ir-jinYun g/ , /an-ir-junYun g/. Note that the root vowel remains /i/; even after the preceding /y/ has been lost. It seems, then, that it is the following /y/ which is causing the fronting.

The most common use of Absolute /-yun g/ is, however, in nouns, where it functions as Human Sg suffix and has a variant /-un g/ with a fair number of stems. There are a few instances where the /-un g/ allomorph induces shift of stem-final vowel to /i/. One ex. is /munan-a/ 'white man' (loanword from an Indonesian language via Yuylngu or creole), Human Sg /munan-a/-un g/. Another is /magnun g/ 'female', Human Sg /magnun g/-un g/ 'woman' (also Nasal-Deletion P-30). However, in most cases there is no change in the vowel: /ridhun-nun g/ 'Rithungu (tribe) person', /mun-gagnun-gagun-nun g/ 'uncircumcised boy'. No cases of fronting occur before the /-un g/ allomorph (whether or not the suffix is hardened to /-un g/). See §6.15.

In personal pronouns we have an apparent case of V-Fronting in the forms with Relative (including genitive) suffix, which with these pronouns takes the form /-n in un g/; contrast the usual form /-yn un g/ with /-j/ (§3.51). Some human categories (mostly Sg) have an Oblique suffix /-wi/- used by itself as a predicate genitive, but also used before further suffixes like /-n in un g/, hence /na:-a:-wi/- 'it is mine', /na:-a:-wi-wuy/- 'to me', /na:-a:-n in un g/- 'mine'. Since /-wi/- already has /i/-vowel, we cannot tell whether fronting occurs before /-n in un g/ in this case.

However, there are also several pronominal categories which do not use the /-wi/- suffix, namely, those ending in /-ru/ (here Human Pl or some nonhuman noun classes), /-ni/ (Mu), or /-rn in un g/ (Phu). Instead of forming a general oblique stem with suffix /-n in un g/ these pronouns have a suffix /-a/- giving a form used chiefly as predicate genitive as in /nu-raz/- 'it is ours(PL)', and a suffix /-i/- normally used before case endings, as in /nu-ri-wuy/- 'to us' (ExP1); the pronoun here is /nu-ru/- 'we'.

The Relative form here is /nu-ri-n in un g/ which presents some problems. One analysis would be to take this as /nu-ri-n in un g/ with Oblique suffix /-i/-; in this event we would have to specify that the normal contraction of /-ai/ to /i/ does not apply, and that instead we get short /i/. (This could be by modifying VV-Contraction P-49 in this combination of some other device such as having a rule just delete the /u/.) This analogy is suggested by my transcriptions of the type /nu-ri-n in un g/ in the Texts volume, where /-/- as usual implies an underlying morpheme consisting of a vowel lost by VV-Contraction P-49. However, an equally likely alternative is that /nu-ri-n in un g/ is from /nu-ri-n in un g/ with no /i/- Oblique marker, and with /u/- fronted to /i/ by V-Fronting P-50; in this analysis we have no difficulty accounting for surface vowel length, and we (hesitantly) adopt it here. For the data see §6.4.

Although we have enumerated a respectable number of cases of fronting of a back vowel to /i/ (or /y/) before a "palatal-type" consonant (laminoalveolar or /y/), it should not be concluded that this is a highly productive process. We have already shown that some of the suffixes above, such as fronting before verbal inflectional suffix /-n un g/, apply only to certain stems (or stem classes). Moreover, there are a number of remaining combinations involving a morpheme beginning with a palatal-type consonant which has no effect on preceding vowels. For example, Relative /-ym un g/ as a case suffix with nouns or as a relative-clause marker with verbs does not affect preceding vowels: /a-ram-aw-yin un g/ → /a-rum-a-jinYun g/ 'of the tree', /a-gugu-yin un g/ → /ai-gugu-yin un g/ 'of the water' (with Length-Shift P-43).

(P-50) V-Fronting

a. V → i // /-n y/ for some verb classes, where /-n y/ is an inflectional suffix (Past 1, Nonpast 1)

b. V → i // /-n y/ji(-i) for some verb classes, where /-n y/ji(-i) // is the Reciprocal suffix (§10.6)

c. V → i // /-y/ for all applicable verb classes, where /-y/ is Nonpast 3; for all N A verbs (all of at least two syllables), under certain conditions for N A verbs (especially in noncommon syllables or stems of compounds), where /-y/ is Past 2

d. V → i // /-ga/- for all applicable verbs, where /-ga/- is the Causative suffix (§10.7)

e. a → i // /an-b/-i-ga/ (optional); that is, in the Factitive verbalised form of /an-b/- 'other' (here presumably due to analogy with Causatives, see part f of rule)

f. V → i // /-j/- in a handful of forms, where /-j/- is a nominalising (adjectival or abstractive) suffix (§14.15-16)

g. a → i: // /-y/ // /-y in un g/ at /-y in un g/ in demonstrative derivatives of type (§7.25)

e. V → i // /-yn in un g/ (Relative suffix with pronouns, Table 6-1)

i. V → i // /-yn in un g/ (§14.15) for a few nouns, with Absolute (Human 5g) /-yn in un g/
3.52 Order of application.

In view of the number of rules recognised in preceding sections, sorting out the order of application is no small task. Our procedure in this section is to examine each pair of rules which interact in a fashion suggestive of ordering; starting with P-1 we discuss these rule pairs in the chronological order in which the individual rules are presented (and numbered) above. Thus all ordering problems involving P-1 are presented first, then remaining problems involving P-2 (other than its interaction with P-1), then remaining problems involving P-3 (other than interaction with P-1 and -2), etc. For any given pair of rules, if there is an ordering problem it is discussed below in connection with the rule whose number is the smaller. It should be recalled that our numbering system for the rules (P-1, P-2, etc.) is based on order of presentation above and is not necessarily related to order of application.

At the end of this chapter we present a summary of the results along with a diagram displaying ordering relations (see §3.53). Some sample derivations and further discussion are presented in §3.54.

Our discussion below will involve some new terms. P-X feeds P-Y if P-X precedes P-Y, and if some structure which would not otherwise undergo a change by P-Y is changed by P-X to such a representation that it does after all undergo P-Y. P-X bleeds P-Y if a representation which would otherwise be changed by P-Y is first changed by P-X in such a way that P-Y has no effect on it. If P-X is a rule which would feed P-Y if ordered after it, but in fact P-X follows P-Y and so does not feed it, we say that P-X counterfeeds P-Y. If P-X is a rule which would bleed P-Y if ordered after it, but in fact follows P-Y and does not bleed it, we say that P-X counterbleeds P-Y.

There are other, less clear-cut possibilities. Two rules overlap if, in some derivations, we know that one or the other has applied but cannot determine which. For example, if underlying //ee// becomes surface /e/, we could attribute this either to Geminat-Contraction P-31 or to Stop Deletion P-29. In such cases we cannot tell what the ordering relation is, since either order would give the same output effect.

P-1 and P-2. The first pair of rules, /n-u/-Epenthesis P-1 and Initial Replication P-2, turns out to be one of the most difficult ordering relationships. Recall that P-1 inserts /-n-u-/ before a stem or noninitial prefix beginning in a stop, when preceded by certain (other) prefixes; recall also that P-2, the main replication rule, regularly produces monosyllabic replicative segments from stems and compounds beginning in a stop, and bisyllabic segments in other cases.

One aspect of the ordering problem can be seen from this derivation:

- Rdp- /-g-e=byra-
  P-1 /n-an-Rdp-baG-g=byra-
  P-2 /n-an-Rdp-g=n=byra-
  -g=e=byra-

In this ex., the eventual output (shown with slashes /) shows that the -Rdp- segment includes a partial copy of the /-n-u-/

morpheme. Therefore it would seem that P-1 must precede P-2, as shown in the derivation.

On the other hand, consider this derivation:

- Rdp- /n-an-Rdp-baG-g=byra-
  P-1 /n-an-Rdp-baG-g=byra-
  P-2 /n-an-Rdp-g=n=byra-
  -n-G-aG-g=byra-

Here we have two instances of /-n-u-/, one inserted in front of the verb root /-byra-/, the other inserted in front of the -Rdp- segment, which in turn is located just before the compound initial /-baG-/'eye'. Since the preceding ex. (previous page) shows that /-n-u-/ at the root boundary precedes replication, we allow P-2 to apply at this boundary as the first rule in our second derivation (though there is no direct evidence for this in the second example). However, the other /-n-u-/ in the second ex. precedes the -Rdp- segment itself (which begins with a stop), and as the derivation is given above this requires phonological specification of -Rdp- before P-1 can apply (again).

There are a number of possible analyses that will produce the correct outputs. First, we could have P-1 and P-2 operate in a kind of leapfrog fashion working from the root backwards to the left. Each application of P-1 would examine the morpheme boundary to see if /-n-u-/ should be inserted; we would then look at the leftmost of the two morphemes in question, and if it is -Rdp- we allow P-2 to specify it phonologically; we then shift one morpheme boundary to the left and try P-1, etc.

An alternative is to formulate P-1 in such a way that it can apply correctly even before P-2 spells out the phonological form of -Rdp-. In the ex. at the top of this page, for example, we could instruct P-1 to disregard an intervening (yet not specified) -Rdp- segment, looking beyond it to see what the initial consonant of the following morpheme is; in this particular derivation, P-1 could then apply twice (simultaneously) since its structural description is met in two places in the word.

The one thing we can be sure of is that P-1 does precede P-2 in some forms. The above data do not suffice definitively to indicate that P-2 may precede P-1. However, consider now the more complex derivations involving intervening Leftward Hardening P-19:

- Rdp- /n-an-Rdp-baG-g=balhu-

P-2 /n-an-Rdp-baG-g=balhu-

P-2 /n-an-Rdp-g=n=balhu-

... /n-an-Rdp-g=n=balhu/- 'I (will) cut its eye'

These are just so many potential analyses that will produce the correct outputs. First, we could have P-1 and P-2 operate in a kind of leapfrog fashion working from the root backwards to the left. Each application of P-1 would examine the morpheme boundary to see if /-n-u-/ should be inserted; we would then look at the leftmost of the two morphemes in question, and if it is -Rdp- we allow P-2 to specify it phonologically; we then shift one morpheme boundary to the left and try P-1, etc.

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- Rdp- /n-an-Rdp-baG-g=balhu-

P-2 /n-an-Rdp-baG-g=balhu-

P-2 /n-an-Rdp-g=n=balhu-

P-2 /n-an-Rdp-g=n=balhu-

P-2 /n-an-Rdp-g=n=balhu-

... /n-an-Rdp-g=n=balhu/- 'we(Indu) will be short'

For this small set of stems, the -Rdp- segment (here PI) is biaxial, presupposing that the stem does not begin with a stop at the time P-2 applies (since stop-initial stems have monosyllabic -Rdp- segments). P-19 is needed as a rule following P-1, to convert the initial consonant of the stem (here including the -Rdp- segment) to a stop. This creates combinations to which P-1 can apply (P-29 feeds P-1). The sequence P-2, then P-19, then P-1 appears to mean that P-1 should follow P-2. However, we still have the alternative mentioned above of having "leapfrog" cyclical application of P-2

§3.52
and P-1 moving from the verb root (here actually an adjectival noun in predicative function) leftward through the prefixes. In this analysis, the preceding ex. would be handled by having P-1 first apply vacuously at the root boundary (since it does not apply after -Rdp- and since the stem does not begin with a stop anyway), then moving left to -Rdp- so we allow P-2 to specify this segment phonologically, then P-19 converts a continuum into a stop, then at the next boundary to the left P-1 does apply, inserting /-n-/. Consideration of this ex. suggests that of the two possible ways out of the ordering problem, the analysis involving some kind of cyclical (root-to-prefix) application is more suitable. The alternative (having P-1 formulated in such a way that an intervening -Rdp- segment is disregarded) will not account for our last ex. P-1 and P-8. Since P-1 inserts /-n-/ at some boundaries where the following morpheme must begin with a stop, this rule can be counterfed by any rule creating morpheme-initial stops which do not require insertion of /-n-/. One such rule is Velar-Insertion P-8, which inserts /g/ or /G/ in morpheme-initial position before a vowel under some circumstances. We are interested only in the cases of /g/. Consider this derivation:

Ihami=alardi
P-8 /Ihami=galardi/ 'bad-taste, bad-tasting'

Since this is the output form, it is apparent that P-1 does not follow P-8. If P-1 did follow P-8, /-n-/ would have been inserted between the two morphemes and we would have ended up with */Ihami=-nu-galardi/. Thus P-8 follows and counterfeeds P-1. Evidently P-16, Lenition P-16 applies to a small number of roots, leniting a stop to a continuant at the beginning of the root when this is preceded by a compound initial or derivational prefix (other than -Rdp-). P-16 in these stems must precede and bleed P-1,

-aG:dhida-
P-16 /aG:dhida/ -aG:dhida-
P-19 /aG:dhida/ /aG:dhida/ 'to block off for' (Benef)

If P-1 applied before P-16 (or after P-18), the output would be */aG:-nu=aG:dhida/; since the environment for P-1 to apply is met at those stages. In order to make sure that P-1 does not apply, we should order it between P-16 and P-18, since at that point the root begins with a continuant rather than a stop. Although it may seem from this derivation that P-16 is just a gimmick to prevent P-1 from applying, in fact P-16 (and P-18) are quite well justified in such cases; /aG:dhida/ actually appears as such after compound initials which do not trigger Hardening P-18, as in /gar=aG:dhida/ 'to shut off from behind'.

P-1 and P-18. As we have just seen in the last derivation, P-18 must follow and counterfeed P-1. P-1 and P-19. As we saw above (preceding page, bottom), Leftward Hardening P-19 precedes and feeds P-1. In the context of the earlier discussion, however, we may want to say that this ordering of a segment to a "leapfrog" cycle going from root to prefixes, P-1 and P-20; P-1 and P-21. Pronominal d-Insertion P-20 and Derivative d-Insertion P-21 insert a /d/ at a boundary before a vowel and after /n/. The inserted /d/ could, in principle, cause subsequent application of P-1, inserting */-d/- before the /d/. This does not happen, as the following derivation shows:

108 §3.5.2

P-20 /n=ndam=ae=bi=\'/ 'I will jump'

There are two ways to explain nonapplication of P-1 to this and similar derivations involving P-20 or P-21. One is to insist, as the transcription above suggests, that the /d/ is inserted at the end of the first morpheme rather than as the initial segment of the second morpheme. However, this is rather arbitrary; my transcription with the /d/ on the left of the morpheme boundary is dictated not so much by theoretical as by practical considerations (it makes it easier for readers to correctly identify the second morpheme, often the root). The second alternative is to have P-20 and P-21 follow (and counterfeed) P-1. This seems reasonable, particularly since a number of other rules like P-8 and P-18 also follow and counterfeed P-1.

P-1 and P-22. Nasalisation P-22 follows and is fed by P-1. This is because P-1 inserts /-nu-/, whose initial nasal consonant can have nasalising effect on a preceding morpheme-final stop:

-lhaj=bura-
P-1 /lhaj=n=bura/ 'firewood to sit'
P-1 and P-23. Nasalisation is a minor rule applying to the inflectional suffix complex */-n-il/ (this is actually augment */-n/ plus inflectional suffix */-il/ characteristic of verbs of the N class). At any rate, this */-n-il/ does not undergo P-1; that is, it does not become */-n-uzu/- or */-n-uzu-il/. Whether we need to order P-23 after P-1 (so that P-23 counterfeeds P-1), or whether P-1 just does not apply to the right of the root, is not clear. There are no exx. of P-1 applying to the right of the root, but except for */-n-il/ there are no relevant suffixes beginning with a stop at early derivational stages which can follow a morpheme ending in a nasal. To be extra safe we could possibly have P-23 follow and counterfeed P-1.

P-1 and P-26. Palatal-Deletion P-26 simplifies such clusters as */-lm/ and */-jd/ by deleting the first member. However, if the two consonants are across a boundary, and if */-nu-/ is inserted between the two morphemes by P-1, no deletion rule applies:

-lhaj=ju£a-ngi/
P-1 /lhaj=n=ju£a-ngi/ /lhaj=ju£a-ngi/ /lhaj=ju£a-ngi/ /lhaj=ju£a-ngi/ /lhaj=ju£a-ngi/ (firewood to sit)
P-1 and P-27. Nasal-Assimilation P-27 takes some underlying clusters of nasal plus stop, and has the nasal assimilate point-of-articulation features from the stop. If the two consonants occur at a boundary, and if */-nu-/ is inserted at the boundary, we need to determine whether P-27 has been allowed to apply first. It turns out that P-1 precedes and bleed P-27.

mun=jura=n\i
P-1 /mun=n=jura=n/ 'You(Sg) pushed it'

If P-27 applied before P-1 we would get */mun=n=jura=n/1.
P-1 and P-29. Stop-Deletion P-29 deletes certain stops as initial members of consonant clusters. Consider an underlying cluster like /g-b/ at a boundary. If Stop-Deletion applies before P-1, this will reduce to /g-b/ and will then undergo P-1 and become /¬ngu-bu-b/. On the other hand, if P-1 precedes P-29, we would first convert /g-b/ to /g-¬ngu-bu/. The trouble is that stops like /g/ which are deleted before another stop are also deleted before nasals, including /n/, so even in this second derivation the eventual output will be /¬ngu-bu-b/. The order of application of P-1 and P-29 is thus not determinate.

P-1 and P-30. P-1 precedes and feeds Nasal-Deletion P-30, which deletes certain nasals as initial elements of consonant clusters. This is because Nasal-Deletion does not apply before stops, but does apply before another nasal, such as the initial segment of the /¬n¬u-/ element added by P-1.

P-1 n¬an¬u¬=guna¬n¬a¬n¬g.

P-30 /n¬a¬-¬n¬u¬=guna¬n¬a¬n¬g. 'I will sit'

P-1 and P-31, P-1 precedes Geminate-Contraction P-31. In some cases P-1 bleeds P-31, in others P-1 feeds P-31, showing that the technical relationship between two rules may vary from one context to another. The cases of feeding order are those where the first morpheme at the boundary ends in /n/, which would not be deleted before the second morpheme, but is deleted when /¬n¬u-/ is interposed by P-1.

/maran¬u¬=balhu¬/.

P-1 /maran¬¬u¬=balhu¬/ 'to cut up hand'

On the other hand, bleeds occur when the inserted /¬n¬u-/ breaks up a geminate cluster which would otherwise have been reduced by P-31.

/han¬¬u¬=jusa¬/.

P-1 /han¬¬¬u¬=jusa¬/ 'to push firewood'.

Here the first /¬j¬u/ ends up as /n/ but is not deleted, as it would have been had P-31 been allowed to precede P-1.

In the feeding cases like /¬mar¬¬u¬=balhu¬/, above, we could technically avoid ordering P-1 and P-31 by allowing Nasal-Deletion P-30 instead of Geminate Contraction P-31 to reduce /¬n¬¬u¬/ to a single /n/. P-30 and P-31 overlap in this combination and either rule is sufficient to carry out the reduction. However, in the bleeds cases like /¬han¬¬¬u¬=jusa¬/, we must have P-1 before P-31.

General comments about P-1. Because of the significance of /¬n¬u/>-phenomenon P-1, some general remarks about its place in the phonological system (summarising the preceding pair-by-pair commentary) are needed. First, we observe that P-1 follows two rules which convert stops into continuants or vice versa, P-16 and P-19. These two rules are applied to specific, marked lexical items and have the character of stem-formation rules (they specify the relationship between the "underlying" form of a root in its uncompounded and compounded environments, respectively). On the other hand, P-1 precedes several other rules which create surface stops (these rules counterfeed P-1): P-6, P-10, P-20, P-21, and

(If we assume that P-1 would be applicable to morpheme boundaries in suffix complexes) perhaps P-23. These rules (except P-21 and P-23) are productive in the sense that they apply to all stems in the form-classes specified by the rules, not just to a few lexical items. (That P-21, a much more restricted rule, follows P-1 could be interpreted to mean that the inserted /¬/ goes to the left not right of the morpheme boundary, so that P-1 is inapplicable anyway and the two rules do not need to be relatively ordered.)

The other major generalisation is that P-1 precedes all relevant morphemes (deletions, assimilations) in consonant clusters. P-1 inserts /¬n¬u¬/ before a stop and after whatever segment the first morpheme ends in (often a consonant). P-1 prevents any consonant-cluster interactions involving the two consonants which originally occurred at the morpheme boundary; on the other hand, it obviously can create clusters involving some consonant followed by the /¬n¬u¬/ of the /¬n¬u¬/ morpheme, and these clusters undergo whatever adjustments are appropriate.

The final remark is a reminder that P-1 interacts with Initial Reduplication P-2 in a complex way suggestive of a root-to-prefix "leapfrog" cycle.

P-2 and P-4. There is some question whether Initial Reduplication P-2 must be specified as following Homorganic Semivowel-Deletion P-4, or whether the rules need not be ordered. The relevant exx. are reduplications of verb forms like /¬mu¬-na¬-na/ 'hits', derived from /¬mu¬-ma¬-na¬-na/ by P-4 (since the semivowel is followed at the relevant level by a homorganic vowel). The following is an acceptable derivation:

the time when it has not yet been fully specified by P-2, and this wispy entity is sufficient to block P-5 (even if P-5 precedes P-2). (It should be noted, though, that a /-wl-/ pronominal prefix does not block P-5 from affecting a following morpheme.)

P-2 and P-7. P-2 precedes w-Insertion P-7.

/\-wI-a/-ala:alad/.../\-yI-a/-ala:alad/

If P-7 preceded P-2, we would presumably get the incorrect output */\-yI-a/-ala:alad/**// with the inserted /\-/ repeated in the -Rdp- pattern, at least if -Rdp- itself (not yet being phonologically specified) permits P-7 to apply over itself. On the other hand, if a not-yet-specified -Rdp- segment prevents P-7 from applying, P-7 should affect neither of the two morpheme boundaries in the derivation shown, and we would get */\-yI-a/-ala:alad/**//, which would end up as */\-yI-a/-ala:alad/**/. (Actually, */\-yI-a/-ala:alad/**// does occur, but in a different meaning and with compound initial */\-/- in place of noun-class prefix */\-a/-.)

It follows that P-7 must follow P-2 as indicated in the derivation. Of course, this analysis applies only to speakers who do apply P-7 in forms like that shown above; as noted in the earlier discussion of P-7, some speakers insert /\-/ rather than /\-wI-/, in such forms and thus have y-Insertion P-10 rather than w-Insertion P-7. For such speakers the ordering of P-7 and P-2 is inapplicable.


/\-wuru-wala/-ala:alad/

If P-8 preceded P-2, we would expect */\-mun-n/-ala:alad/**//, 'having bad feet. (n)'.


/\-wuru-wala/-ala:alad/

/\-wuru-wala/-ala:alad/

/\-wuru-wala/-ala:alad/

P-2.../\-wuru-wala/-ala:alad/

/\-wuru-wala/-ala:alad/

P-2.../\-wuru-wala/-ala:alad/

Rule P-9 optionally (but often) deletes /\-/ in certain environments including */\-a/- but not */\-a-/. In the derivation shown, the deletion rule applies at the root boundary */\-/ but not at the beginning of the -Rdp- segment. If P-9 preceded P-2, either the intervening unspecified -Rdp- segment would block P-9 (which would, incorrectly, mean that P-9 could never delete the /\-/ at the beginning of the root), or else P-9 would apply over the unspecified -Rdp- segment, which would then mean that -Rdp- would later be specified in this ex. as */\-a/- rather than */\-\-a/-, which would result in */\-wuru-\-t-ama/-a-/. The solution is to have P-2 operate at an early stage and then have the //-/ in the -Rdp- and root morphemes undergo (separately) whatever developments are dictated by their immediate environments. Thus P-9 follows P-2. If instead of //-/ the ex. above had prefix /\-/, the derivation would be this:

\(\text{&-Rdp-}a/-aba/-na\)

\(\text{P-2 &-w}a/-aba/-na\)

\(\text{P-9 &-aba-}a/-aba/-na\)

... /\-aba-\-a/-aba/-na/

Here P-9 does apply to the //-/ of the -Rdp- segment, but because of the local phonological environment of this morpheme and not because the rule applies also to the root.

P-2 and P-10. For speakers who apply y-Insertion P-10 instead of w-Insertion P-7 to combinations of noun-class prefix /\-yI-/- and following noun root beginning in /a/-, we must specify P-10 as following P-2 for the same reasons that the other speakers must have P-7 following P-2.

>yI-a/-ala:alad/

yI-a/-ala:alad/

P-10 yI-yala-ala:alad/

... /\-yI-yala-\-t-ala:alad/.

P-2 and P-13. If we are correct in arguing that /\-yI-wu/- 'to scorch' is from */\-m\-\-I-wu/- via a minor rule applying to this lexical item, then this Rule (\-\-y\-\-ala:di) should precede P-2 to account for the Reduplication:

\(\text{&-Rdp-}a/-wu/-\)

\(\text{P-2 &-yI-wu/-wu/-}\)

The alternative would be to have P-13 apply twice in this form, once to the root and ordering of P-10, and once to the -Rdp- segment. Particularly for a minor, idiosyncratic rule (essentially relating this verb to the form which it has in compounds), this seems inappropriate and inelegant, so we opt for the derivation (and ordering) shown above.

P-2 and P-16. Although Lenition P-16 would seem to interact in derivations with P-2, it turns out that the order of application is indeterminate. The small set of verb stems undergoing P-16 have initial stops with no preceding compound initial or similar derivational element, but an initial constituent in compounds and derivatives just after P-16 applies (Hardening P-16 may eventually reharden the continuant to the paired stop). When -Rdp- occurs before the uncompounded form of the root, -Rdp- will always be a monosyllabic form since this is what we get before stop-initial stems: */\-adha:-'=dhida/- 'to block off', Rdp- */dhida/-dhida/. Since P-16 does not apply in such uncompounded forms (simple or reduplicated), there is no evidence here for ordering P-2 vs. P-16. Consider now the Benefactive form */\-aG=\-dhida/- 'to block off for'. Since Benefactive */\-aG/- counts as a derivational (or compounding) element for purposes of P-16, this becomes */\-aG=\-dhida/-.

Although this later becomes */\-aG=\-dhida/- by Hardening P-16, the form must have//-=- rather than /\-dhida/- at an early level to explain the fact that n\-u-Epenthesis P-1 fails to apply. Let us now consider the reduplication of */\-aG=\-dhida/- . It turns out that we get */\-adhar-\-\-dhida/- as our reduplication. However, we can account for this using either order of P-2 and P-16.

\(\text{&-Rdp-}a/-\-dhida/-\)

\(\text{P-2 &-aGdhia-}a/-\-dhida/-\)

\(\text{P-16 &-Rdp-}a/-dhida/-\)

\(\text{P-16 &-aGdhia-}a/-\-dhida/-\)

... /\-adhar-\-\-dhida/-

... /\-aGdhia-\-\-dhida/-
The reason for the ambiguity is that, in the -\textit{Rdp-} segment itself, either /\textit{Gdh}/ or /\textit{Glh}/ will end up as /\textit{dh}/ after later rules (notably Hardening P-18 and Stop-Deletion P-29) apply. We therefore cannot determine the order of P-2 and P-16.

P-2 and P-17. The other lenition rule is digu-lenition P-17. Since P-17 (a minor rule relating one adjectival noun stem to its form as a compound initial) has the limited lenient, here /\textit{gly}/, in positions in verbs where it can be immediately preceded by \textit{Rdp-}, we can determine relative order \textit{vis-a-vis} P-2 (unlike the case with Lenition P-16).

-Rdp-digu-wabyal- 
P-17 -Rdp-digu-wabyal- 
P-2 /\textit{rigi}-digu-wabyal/ 'to keep fainting'

Since the -\textit{Rdp-} segment is monosyllabic with stop-initial stems, but bisyllabic with other stems, P-17 must precede P-2 as the rules are formulated here.

P-2 and P-18. P-2 precedes Hardening P-18, 

num-\textit{Rdp}=\textit{ayama}-\textit{n}\textsuperscript{2} 
P-2 num-\textit{nya}=\textit{ayama}-\textit{n}\textsuperscript{1} 
P-18 num-\textit{bay}=\textit{ayama}-\textit{n}\textsuperscript{1} 

... /num-\textit{bay}=\textit{ayama}-\textit{n}\textsuperscript{1}/ 'You kept going onward'

Note that here Hardening P-18 affects the -\textit{Rdp-} segment, hardening //\textit{w}/ to /\textit{b}/, but does not affect the root-initial //\textit{w}/.

P-2 and P-19. Leftward-Hardening P-19 follows P-2. Indeed, the relationship between these two rules is the central reason for distinguishing one set of roots to which Leftward-Hardening applies (hardening a continuant to a stop in the position farthest "left" in the stem, just after inflectional prefixes if present) from a distinct set of stems to which Lenition P-16 applies (leniting stop to continuant in positions farther "right" in the stem). These two types of alternation would seem to be indistinguishable, but their reduplications are distinctive and require different analyses. For the set of stems which take P-16, see the discussion on page P-16 (preceding page). An ex. of the type with P-19 is this:

\textit{Rdp-}hama-\textit{hama-}gur 
P-2 hama-\textit{hama-}gur 
P-19 /hama-\textit{hama-}gur/ 'short ones'

Here we want P-2 to apply before P-19 hardens //\textit{h}/ to /\textit{d}/ for two reasons: this accounts for the /\textit{h}/ in the root itself in the output, and also gives us the correct bisyllabic -\textit{Rdp-} segment (-\textit{Rdp-} is monosyllabic when the root starts with a stop). If there is a further compound initial or the like before -\textit{Rdp-} in this form, neither case of //\textit{h}/ is hardened to /\textit{d}/ by P-19, hence /\textit{numguru}-hama-\textit{hama-}gur/ 'short (small) billabongs'.

The relationship between P-2 and P-19 leads to apparent difficulties in reconciling this ordering sequence with that between P-2 and P-17 and between P-1 and P-19. This matter is discussed above (in the subsection on P-1 and P-2), where it was suggested that some kind of "leapfrog" cycle from root back through the prefixes is called for.

P-2 and P-20. P-2 precedes Pronominal d-Insertion P-20, as in this example:

P-2 nun-\textit{Rdp}=\textit{agama}-\textit{a}

P-2 nun-\textit{agama}=\textit{agama}-\textit{a}

P-20 nun-\textit{a}=\textit{agama}-\textit{a}

... /nun-\textit{agama}=\textit{agama}-\textit{a}/ 'you kept roasting it!'
Since in this particular ex. one might consider other possible derivations in which the root is */wya-/* all along rather than */mij-/ (see discussion of P-45 in §3.46, above), we give another ex. confirming the derivation:

- initial */wya-/* is not lengthened
to */wya:/; contrast */wya-n1/* 'went'. The reduplication of */wya:ri:/ has just been illustrated (preceding page, bottom). Note that the correct output is generated if the input is presented as */wya-ri:/, which would mean that Lengthening had already applied at an earlier stage not shown above. An alternative, however, is to formulate P-45 in such a way that */wya:-/* is not lengthened to */wya:-/* when immediately preceded by */-Rdp:-/*, in which case we would still get unreduplicated */wya-ri:/ but would have input */-Rdp-wya-ri:/ to the reduplicative form, whereupon the output */-Rdp-ya:-ri:/ would be generated unproblematically. The latter analysis is awkward, inelegant, and not supported by parallels in the rest of the phonology, and I feel that the first solution is correct (that is, I maintain the correctness of the process of which */wya-ri:/ is a part of). The remarks above is that P-2 precedes */Rdp:-/* rather than at the boundary. However, unlike the other stem-internal rules mentioned above which P-2 follows, P-40 applies only in reduplications, and in an intuitive sense is essentially a part of the larger reduplication process of which P-2 is the primary rule.

The only really interesting exception to the generalisation about the ordering of P-2 is that P-2 precedes rather than follows leftward Narding P-19, a rule applying to a specific set of lexical items, hardening a continuant to the paired stop when preceded by zero or by only an inflectional prefix (coregional). Since P-19 is a lexically restricted rule applying to a stem segment without reference to the specific phonological substance of the preceding morphemes, we would expect P-2 to follow rather than to precede P-19.

There is, however, a possible way to understand this ordering. For most verbs and nouns, Initial Reduplication by rule P-2 is a productive morphological process with a consistent grammatical value (durative in a broad sense for verbs, generally PI for nouns). However, in the case of nouns the pre-badge is not very productive and is more derivational and lexically specialised than it is for verbs, since some nouns have other pluralising processes (such as pre-fixed */ml-/ or some other morpheme). Since the meaning is sometimes skewed (as in reduplicative Multiple forms of topographic.
nouns, like /t114-t11j/ 'islands'), and since we can find a few irregular PI noun forms which look vaguely like reduplications but have analogous changes, such as /magnun/ 'woman' (root), Sg

/magnun-yu-/\~//magn-n"u//, but PI /magnun// with an entirely anomalous quasi-reduplicated shape. Turning to the particular set of lexical items which undergo Leftward-Hardening (see list in §3.20, above) we observe that they are all adjectives like

//hamungur// 'short' or verb roots which have common adjectival derivatives like /ma-ara// 'to become bent', adjectival noun

//mara-komnu//, /bent, crooked' (uncompounded forms //hamungur/, //bara-/, and //bara-waru-/), respectively. Moreover, the relevant alternating verb/adjective roots here show reduplication obligatorily in the adjective (regardless of number), and commonly show the same reduplication in the verbal form regardless of number or verbal aspect. There is thus strong reason for arguing that Initial Reduplication P-2 is an early, lexically specialised, stem-formation rule for these roots, even though the same rule P-2 is a productive inflectional process for most other verbs. If the grammatical status of P-2 can vary in this way, it is not too surprising that in its more strictly derivational usage it can occasionally precede another stem-structure rule like P-19.

Our generalisation should thus be reformulated to state that in its ordinary status as a productive inflectional process, P-2 follows stem-internal rules but precedes productive boundary-adjustment rules; as a specialised derivational rule it can, on occasion, precede a stem-internal rule.

Recall our earlier discussions of the relative ordering of P-2 and n-w-Epenthesis P-1, where we pointed out cases of P-1 applying twice, once before and once after P-2. We also commented that a leapfrog cycle would account for this, starting with the root and working backwards through the prefixes. This is essentially consistent with our depiction of P-2 as a rule which, in its usual function, applies after various stem-internal rules have produced a surface or near-surface representation of the following stem; a leapfrog cycle would account for this, starting with the root.

Now, however, we must distinguish between two very different things: a surface or near-surface representation which nonetheless seems to operate on surface forms. Although the formal derivations shown above start with something like /bu-Rdp-ru-ala/ contracts to /-ni/-'la/ with the quality of the first input vowel predominating, consider the corresponding PI form:

/ba-Rdp-ru-ala/

P-37 /bu-Rdp-ru-ala/
P-49 /bu-Rdp-rai-"la/

In the case of //ba-/ the output is //ra-/ with the second input vowel quality dominating. Since the -Rdp- segment has //ra/-instead of //ru/-, it follows that the reduplication is based on the output of the VV-Contraction rule P-49, though the -Rdp- vowel must be short. (Note also that the //ru// morpheme has its //u// reflected indirectly through the early assimilation of this vowel quality by the demonstrative root, which becomes /bu// by V-Assimilation P-37.)

General remarks on P-2. This particular reduplication rule strikes me as a curious example of a functionally derivational rule (creating a special type of "lateral" demonstrative, §7.15) which nonetheless seems to operate on surface forms. Although the formal derivations shown above start with something like /bu-Rdp-ru-ala/ contracts to //-ni/-'la/ with the quality of the first input vowel predominating, consider the corresponding PI form:

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phonotactic co.nstraints (or tendencies). I would therefore incline
toward recognising derivations like the following, even though there
is, technically, an alternative possibility.
¢,=w2u-ma-na
P-4 ¢,=u-ma-na
P-j /¢'=wu-ma-na/ 'it hits/kills it'
p-4 and P-1S. p-4 precedes (and bleeds) Hardening P-1S when
the verb forms which lose an underlying semivowel by p-4 fail to
show a stop (the hardened counterpart of the semivowel) after a
prefix ending in a hardening consonant (stop, nasal). In the
following example, instead of Hardening P-1S we eventually have
Pronominal d-Insertion
P-20, a rule which applies before vowels:
g
n an::w u-ma-na
2
P-4 ngan=u-ma-na
P-20 /ngand=u: -ma-na/ 'I will hit it (ANA¢') ,
Whether or not P-1S precedes P-20, it must follow p-4 since
otherwise it would have applied to this form, converting //w //
2
into fbi, leading to eventual */ngam=bu-ma-na/. In other words,
P-1S follows and counterbleeds P-4.
P-4 and P-20. The derivation just given shows that p-4 precedes
and feeds Pronominal d-Insertion P-20.
p-4 and P-36. rV-Contraction p-J6 accounts for such optional
changes as //w2ara-//~ /w 2a:-/ in inflectional prefixes. Except in
fast or otherwise sloppy speech, p-J6 applies when the morpheme
following the inflectional prefix begins with a consonant but not
when it begins with a vowel (at the relevant stage). Stems which
have initial vowel after losing an underlying initial semivowel
by p-4 are treated for this purpose like stems with underlying
initial vowel, and thus prevent p-J6 from applying (instead,
VV-Contraction P-49 applies at the boundary).
w2ara=w 2u-ma-na
P-4 w2 ara=u-ma-na
P-49 /waru:='-ma-na/ 'they hit them'
Thus p-4 precedes and bleeds p-J6.
P-4 and P-37; P-4 and P-3S. We have seen that p-4 induces such
changes as //=W2u-//~ /;u-/. However, if in such a stem some rule
alters the ~uality of the vowel, here changing //u// to some other
vowel, p-4 cannot apply since the rule specifies that the semivowel
and vowel must be homorganic (/wu/, /yi/) at the time p-4 applies.
V-Assimilation p-J7 and V-Ablaut p-JS are cover terms for various
minor changes, some of which affect vowel ~uality in roots which
can undergo
P-4. For example,
/=w2u-/ 'to hit, kill' has Pastl
g
g
/=w 2 a-n / where suffix /-n / induces ablaut to /a/; also Past2
/=w2 i-ni/ where it appears that V-Assimilation copies the suffixal
vowel ~uality in the root syllable. Such forms do not undergo p-4,
so they keep their underlying //w2// (which may, for example, end
up as /b/ by Hardening P-1S when preceded by a hardening consonant).
Thus p-J7 and p-JS (or the relevant subrules thereof) precede
P-4. See below for a similar remark on p-4 and P-jO.
p-4 and P-49. We have a possible ordering paradox here. In our
formulation of P-4, we specify that in the input we must have
//wu// or //yi// with short //u// or Iii/I. Thus //=w u-ma-na//
2
undergoes p-4 and becomes //=u-ma-na// at this level. However, the
120

§J.j2

NonpastJ of this ve:b is /=w2u:-'/, and this form does not undergo
p-4 and t?US kee~s ltS /w2/. As for the underlying form of this
NonpastJ,ltem, elther //=w2u-¢'// (with lengthening by MonosyllableLengthenlng P-44) or //=w u-u// (with VV-Contraction P-49) would
give the right result, but inspection of paradigms of other verbs
ending in /u/ shows that the analysis with suffix //-u// is
a~p~opria~e (since w; get ~onpastJ forms,like /;a:ru:-'/ from
/~a,ru-/ to abandon showlng long /u:/ In a nonmonosyllabic stem).
=w2u-u
P-49 =w2u:-'
P-4 [no change]
••• /=w 2u:-'/
In this form, then, P-49 precedes and bleeds p-4 within the
stem itself. On the other hand, P-4 precedes and feeds P-49 with
reference to the boundary between a prefix and a verb form whose
initial semivowel has been lost by P-4.
wa=w2 u-ma-na
P-4 wa=u-ma-na
p-49/wu::'-ma-na/ 'I will hit you(Sg),
Here ~e have further evidence of some kind of cycle affecting
the orderlng of rules, beginning within the root and working back
through prefixes. If VV-Contraction P-49 can operate within the
stem (here, at the root-suffix boundary) it does apply by an early
stage and can thus affect whether P-4 applies to the initial
segment in that stem; at a later stage P-49 can apply at the
prefix-stem boundary and thus follow P-4.
P-4 and P-50. V-Fronting P-jO, which fronts a back vowel to /i/
before a "palatal-type" consonant, has the same interaction with
P-4 which p-J7 and p-JS do (preceding page).
=w u-nY
P-jO =W;i-nY
p-4 [no change]
•.• /=w2 i-nY/
'will hit' (Nonpast )
Y
Here the /-n / suffix induces a vowel changel in a root which
is ~therwise subject to P-4. Since we now have a nonhomorganic
semlvowel-vowel se~uence, ,With /w / followed by high front Iii,
P-4 does not apply. That lS, P-jO 2precedes and bleeds P-4.
?eneral rem~r~s about p-4. In terms of its ordering location,
P-4 lS rather slmllar to P-l and P-2. Like them, its own effect is
at ?r near the beginning of a stem; it follows (is affected by)
varlOUS rules ~hich apply within the stem to the right; it affects
(precedes) varlOUS rules which apply over the prefix-stem boundary,
Thus :-4 follo~s p-J7, P-J8, and P-jO, which are essentially
sets of mlnor, lexlcally restricted subrules which affect vowel
~uality within the stem. On the other hand, P-4 precedes such rules
as P-j, P-18, P-20, and p-J6, all of which crucially involve the
phonological substance of preceding morphemes. As we have just
seen, P-49 is a rule which can apply either within the stem or at
the prefix-stem boundary, and depending on its location it can thus
precede or follow P-4, pointing to a cyclical approach.
Our only other remark is that P-4 does precede P-2 (Initial
Reduplication).

121


we want to see whether p-6 or p-8 applies to compounds of the distinct effects. In ordering these two partly overlapping rules, verbs which elsewhere can undergo p-6; if we get surface /g/ in /n g / common when the preceding morpheme ends in /n g / or /n/, become /g/ after a stop or nasal by Hardening p-18. However, applying to one or more stems in compound-final or derived forms (a rather minor use within prefix complexes, may follow P-49 (a lexically restricted phonological rules).

## General remarks on p-5.
The rule clearly follows P-2, P-4, and P-12. In the relevant derivations we are dealing with the application of P-5 in word-initial position, converting /\(\text{wI}+\) into /\(\text{yI}\)/ and /\(\text{nI}\)/, respectively. Here P-5 has all the earmarks of a low-level, automatic rule closely related to surface phonotactic constraints. There is a possibility that P-5, in its rather minor use within prefix complexes, may follow P-49 (a relatively late and productive rule), but this raises the question of whether this instance of P-5 is really the same rule as the word-initial case. In any event, P-5 never precedes any of the earlier, lexically restricted phonological rules.

## P-6 and P-8.
It appears that w1-Deletion is a restricted rule applying to one or more stems in (compound-final or derived forms) precedes and bleeds Velar-Insertion P-8. P-6 applies regardless of the phonological substance of the preceding morpheme, while P-8 applies after morphemes ending in stop or nasal (i.e., hardening consonants). P-6 adds a stem-initial /\(\text{nI}\)*/, which will become /\(\text{g}\)/ after a stop or nasal by Hardening P-18. However, P-8 inserts either /\(\text{nI}\)*/ or /\(\text{g}\)/ in the same stem-initial position, with /\(\text{hI}\)/ common when the preceding morpheme ends in /\(\text{nI}\)/ or /\(\text{n}\)/.

P-6 and P-8 thus have similar, but in some instances slightly distinct, effects. In order to test these two partly overlapping rules, we want to see whether P-6 or P-8 applies to compounds of the verbs which elsewhere can undergo P-6; if we get surface /g/ in stem-initial position consistently, we assume that P-6 (and P-18) have applied with P-6 bleeding P-6 if we get /\(\text{hI}\)/ in this position

we recognise P-8 as applying, bleeding P-6. In fact, it is P-6 and not P-8 which applies to compounds of the best-attested such verb, /\(\text{muyu}^-\) 'to cut up':

- /\(\text{muyu}^-\)/, 'to cut up elbow of'
- /\(\text{muyu}^-\)/, 'to cut up shoulder area of'
- /\(\text{wI}a\text{ngi}\text{g}\text{i}^-\)/, 'to cut up ray meat'

It may seem clumsy to have P-6 insert /\(\text{wI}^-\)/ only to have this semivowel immediately deleted by P-9. However, P-9 is independently motivated and derived /\(\text{wI}a\text{ngi}\text{g}\text{i}^-\)/ behaves just like roots which begin with underlying /\(\text{wI}^-\)/. Moreover, if P-6 did not apply in this last derivation we would have to explain why VV-Contraction P-49 does not apply, giving output /\(\text{wI}a\text{ngi}\text{g}\text{i}^-\)/. To explain this we assume that P-49 applies between P-6 and P-9, and thus has no effect on the derivation just given.

We conclude that P-6 precedes (and feeds) P-9, P-6 and P-18. The /\(\text{wI}^-\)/ inserted at the beginning of some roots in compound/derived position is also subject to Hardening P-18, becoming /\(\text{g}\)/ after stop or nasal. An ex. is given at the top of this page. P-6 precedes and feeds P-18.

As noted in the discussion of P-6 and P-9, just above, we want P-49 to follow P-6 in derivations like that of 'to cut up ray meat' (above). Here P-49 would have contracted the two vowels across the boundary into a single long vowel were it not for the fact that P-9 has, in the meantime, broken up the vowel sequence by inserting a semivowel.

## General remarks on P-6.
P-6 is a sharply restricted rule affecting a small number of stems, /\(\text{muyu}^-\)/ 'to cut up' being the clear example. It makes no reference to the precise phonological form of preceding segments, though it must "know" that there is a derivational prefix or compound initial. As is appropriate for a rule of this type, it precedes various lower-level, relatively productive rules (P-8, P-9, P-18, P-49) which include concrete interactions among segments across the morpheme boundary.

P-7 and P-10. w1-Insertion P-7 (not to be confused with w1-Insertion P-6) applies after noun-class prefix /\(\text{yI}\)/, as in
would have applied, giving */yi:-'Qarag/* or */yi:-a:mun Y/* or */yi:-aQarag/* → */yi:-waQarag/*.

Alternatively, P-49 at the boundary. Indeed, with stem beginning in long /a:/ my P-7 has not inserted /w/ at the boundary, presumably VW-Contraction P-49. In a form like */yi:-waQarag/* 'goanna sp.', if P-7 had not inserted /y/ we would have */yi:-a:mun Y/* or */yi:-aQarag/* → */yi:-waQarag/*.

The most elegant analysis is to have P-7 precede P-10, bleeding it.

P-7 and P-49, P-7 likewise precedes and bleeds VW-Contraction P-49. In a form like */yi:-waQarag/* 'goanna sp.', if P-7 had not inserted /w/ at the boundary, presumably VW-Contraction P-49 would have applied, giving */yi:-'Qarag/* Alternately, P-49 can be formulated in such a way that it does not apply when the vowel to the left of the boundary is long (there do not appear to be any counterexamples to this suggestion). In the second analysis, there is no determinate ordering relationship between P-7 and P-49. We therefore observe that if the two rules are ordered, P-7 must precede (and bleed) P-49, but that this depends on how the rules are formulated.

P-8 and P-29, P-8 and P-21, P-8 is Velar-Insertion, adding /w/ or /y/ before root-initial vowel in some morphological environments. Rules P-20 and P-21 insert /g/ in a similar environment, and we therefore have to specify which rule applies in which specific combinations.

Of these, P-20 and P-21 are rather restricted while P-8 is more general. The simplest and most elegant solution is to have P-20 and P-21 apply first, with the more general rule P-8 following and covering those cases not affected by the earlier rules. If so, P-20 and P-21 precede and bleed P-8.

P-8 and P-29, Stop-Deletion P-29 accounts for such boundary simplifications as */g-g/* → */g/*, where */g/* is a stop archiphoneme. Since a morpheme ending in */g/* can trigger Velar-Insertion P-8 in the following morpheme, and the */g/* is then deleted, we must have P-8 preceding and feeding P-29.

/mulung-argi/ → */mulung-ngargi/* → */mulung-argi/ 'others'

Here we assume that the root */argi/* becomes */ngargi/* by VV-Contraction P-S, and that it is sensitive to the specific phonological content of the preceding and following morphemes. Like most other rules creating consonantal segments which form part of a consonant cluster, it is followed by any relevant lower-level cluster-adjustment rules. In this case, the relevant rules are P-29, P-30, and P-31 (or whichever of these are determined to be operative in the reductions */g-g/* → */g/*, */g-g/* → */ng/*, etc.).

There are other ordering relationships involving P-8, but they should be qualified. We have suggested that P-8 may precede P-46 (counterfeeding relationship), but this is just a device to insure that P-8 fails to apply to certain boundaries, and there are other possible ways to insure this not involving rule ordering. Similarly, we have indicated that P-8 may follow P-20 and P-21 (the d-Insertion rule), but this is just a device to indicate which forms are affected by P-20 or P-21 and which are affected by the competing rule P-8, and again other mechanisms aside from rule order could be employed.

We have three remaining combinations involving P-8. First, P-8
must follow (and counterfeed) /⁴u-/Epenthesis P-1, since derived clusters like /⁴g/⁺/g/ due to P-8 do not trigger insertion of the epenthetic /-⁴u-/ morpheme, which is inserted into underlying /⁴g/⁺/g/ and similar clusters at the same kinds of boundaries. This is consistent with the general behavior of the /⁴u-/- morpheme at very early stem-initial stops but not before late stem-initial stops inserted by lower-level rules or hardened from underlying continuants by P-13. Indeed, the most obvious surface function of the /⁴u-/- morpheme is its indication that the following stop is a “real” stop rather than a low-level development.

Likewise, P-8 follows Initial Reduplication P-2. This is also consistent with expectations, since P-8 is a rule (as we have seen) which involves concrete phonological interaction at a boundary, just as does P-2, on the other hand, an early rule which references only to the form of the following stem, and precedes a variety of rules which involve local interactions among segments across the prefix-stem boundary.

Finally, P-8 follows P-6, a specialised and highly restricted rule specifying the form of one or more particular verb roots in compound/derived form. Since P-6 makes no reference to the particular segments to the left of the prefix-stem boundary, it is expected that P-8 too will follow it.

P-2 and P-10: /wi-/Deletion P-9, deleting /wi-/ but not /wI-/ after unrounded vowel or non-hardening sonorant, creates an environment which permits y-Insertion P-10 to apply: /ni-wara-/  

This P-9 precedes and feeds P-10, as we formulate the rules. P-2 and P-13. /wi-/Palatalisation affects the verb /wa-/wI-/, ‘to scorch, sear’ in its uncompounded form /wiI-wu-/ and ‘in some compounds. We want the /wi-/wI-/, to be directly converted into /wI-/, in this item, and it does not appear that P-10 is the appropriate rule for this phonological environment. There is also no evidence for an intermediate stage between /wI-/, and indeed allowing P-9 to operate and produce this intermediate form would create numerous difficulties since this verb does not undergo rules characteristic of vowel-initial stems. We therefore allow P-13 to precede P-9 (and bleed it).

/maI-wI-/, ‘to scorch’  
P-2 and P-16. Lentinion P-16, a lexically restricted rule, should in principle have as one of its manifestations an alternation of /g/ with /wI-, and it should be possible to see whether P-16 feeds P-9 by observing whether the limited /wI-/ acts like other /wI-/ in undergoing deletion by P-9 in the appropriate environment. However, I do not have any clear exx. of verb stems with the relevant alternation and cannot determine the ordering relation (though I strongly suspect the P-16 does feed P-9).

P-2 and P-19. Leftward-Hardening P-19 is another restricted rule accounting for stop/continuant alternations, though in this case the columnar is underlying and the stop derived. We expect

alternations of /wi-/ with /wI-/ to occur, and we would certainly expect P-9 not to apply to such forms (i.e., deleting the /wi-/ before it could be converted into /wI-/), on the grounds that P-19 is a restricted lexically specialised rule not related to the phonological environment while P-9 is a fairly low-level, local boundary interaction. However, once again the very limited set of stems known to undergo P-19 does not happen to include a good case of /wi-/ alternating with /wI-/ so we cannot prove any ordering relationship.

P-2 and P-36. wV-Conversion P-36 is an optional rule applying to certain inflectional prefixes when the underlying morpheme begins with a consonant. The question then is whether a following morpheme beginning in /wa-/ or the like permits application of P-9, P-36, or both. Consider these two outputs from the same underlying representation:

/wnara-wI-aba-na  
P-9 /wnara-wI-aba-na  
P-9 [No change]  

/wara=aba-na/ P-36 /wnara-wI-aba-na  

/wnara-wI-aba-na/ 'they wrap it'

In other words, when P-9 (which is optional here) does apply as in the lefthand derivation, P-36 normally cannot apply; however, when P-9 is not put into operation as in the righthand derivation, P-36 can apply (though it does not have to). It follows that P-9 precedes and bleeds P-36 (with perhaps the occasional exception in rapid speech).

P-9 and P-40. In the example /wara=aba-na/ just given (above, lefthand column), the vowel cluster at the = boundary is regularly pronounced as two distinct syllabic nuclei with a partial hiatus between them. This means that P-9 follows and counterfeeds P-40. In rapid speech such clusters are occasionally contracted, but this is not usual, and informants disapprove of it.

General remarks about P-9. /wi-/Deletion is one of the fairly low-level rules operating at boundaries, depending on the particular phonological segments on either side of the boundary. It is appropriate that it follow the relevant rules which are restricted to particular stems and which operate without reference to particular adjoining segments (P-6, P-13), as well as Initial Reduplication P-2 (which works on underlying rather than surface stem shapes). With respect to interactions with other lower-level rules working at boundaries, P-9 follows wV-Conversion P-40, allowing some derived vowel sequences to occur, but P-9 precedes P-10 and P-36.

P-10 and P-19: P-10 and P-36. P-10 and P-40: P-10 is y-Insertion. Our problem is to make sure that the morphemes do not apply to certain derivations of pronominal prefixes, using the highly abstract analysis of Chapter 9 (in which several component morphemes may be recognised as underlying a given pronominal prefix).

na-wI-an-wI-p-ri-  
P-37 /nI-wI-an-wI-p-ri-  
P-11 /nI-an-wI-p-ri-  
P-48 /nI-wI-p-ri-  

... /ni-wI-p/ 2FL→ ANA-wI-
want to insure that a sequence */ni-yin-/* which would be incompatible with our attested output. There are two possibilities: P-10 is followed and is bled by P-48. The only possibility excluded is that P-10 apply between P-11 and P-46. However, it should be stressed that these considerations are relevant only to prefixal derivations of a highly abstract type such as that just given, involving at least one rule (/*w-Contraction P-46/*) which is restricted to this morphological environment and whose precise formulation is not obvious.

P-10 and P-49. The data point to the conclusion that P-10 follows VV-Contraction P-49. The two rules are competitive, in that y-Insertion P-10 breaks up a vowel sequence by interposing a semivowel, while P-49 contracts vowel sequences into single (usually long) vowels. Consider this form: y1-w-amin/* "bush fly"

One reasonable analysis of why P-49 fails to apply here would be to point out that the vowel preceding the boundary is long, and to conclude that P-49 applies only when this vowel is short (though the vowel to the right of the boundary may be long or short).

Since the sequence */i-a-/* becomes */i:-'a://* but not */i:-a://* Then P-10 would apply, affecting */i-a-/* as shown above (for */i-a://* see P-7). On the other hand, we could also formulate a very restricted version of P-10 which would apply just to forms like that shown above, with a following (very general) P-49 which would in effect apply to forms which P-10 had left untouched.

Consider now this example: ni-wara- P-9 ni-arya- P-10 ni-arya-/* (2ESg/Na plus Multiple prefixes) We have already seen this above in the context of the ordering relationship of P-9 and P-10 (two pages back). Here, note that VV-Contraction P-49 might have applied just after P-9, giving an incorrect output */ni:-'ar-/* This, in this derivation, either P-49 precedes P-9 or it follows P-10. In our discussion of distinct derivations showing the relationship of P-9 and P-49 (preceding page), we concluded that P-9 follows P-49. Putting these observations together, we conclude that the order is P-49, then P-9, then P-10, though no single derivation shows all of these ordering relationships unambiguously.

P-49 precedes and bleeds P-10, which can apply to forms not affected by P-49 due to restrictions on the latter (and can also apply to some later vowel clusters created by deletion rules which follow P-49).

General remarks on P-10. y-Insertion P-10 appears to be a very low-level rule applying automatically at boundaries showing the relevant input sequence, and closely related to phonotactic constraints. In all clear cases of ordering P-10 follows the other rule, even though the latter may be another lower-level boundary adjustment. The clear ordering cases are with P-2, P-7, P-9, and P-49 preceding P-10. In the one problematic case we observed that either P-10 precedes P-11 or P-10 follows P-46 (i.e., P-10 may not apply in between P-11 and P-46). In the light of the other ordering relationships, it would seem most reasonable to assume that P-10 follows P-48 rather than preceding P-11 (an irregular and highly abstract rule applying only within pronominal prefixes). P-11 and P-46 w-Deletion P-11 and w-an-Contract/ apply in certain derivations of pronominal prefixes under the maximally abstract analysis of Chapter 9. A sample derivation showing the order of application is given two pages back (bottom of page), in discussing the relationship of P-10 to rules such as P-11. That derivation shows that P-11 precedes and feeds P-46.

General remarks on P-11. As we have just seen, the clearest relationship between P-11 and another rule is its preceding P-48. There is also a possible argument for having P-11 follow Hardening P-18. As P-11 is formulated, the deletion of /*w-/* occurs (in a small number of morphemes) in environments involving a preceding vowel or word boundary (presumably nonnasal sonorants could also permit the deletion but no relevant combinations occur); the deletion does not apply to any combinations involving an immediately preceding stop or nasal. Since stops and nasals are hardening contexts, any (even partially) inducing hardening of a preceding vowel, even if the latter is short.

Indeed, the argument for having P-18 precede P-11 is stronger than that for having P-18 precede P-12 (since not all of the prefixes affected by P-11 can show this hardening in the correct environment, one analysis would be to have Hardening P-18 precede (and bleed) P-11. In other words, what we have presently formulated as a restriction built into P-11 could also be taken care of indirectly by allowing P-18 to apply prior to P-11.

P-12 and P-18. Stem w-Deletion P-12 is similar to P-11 in that it deletes morpheme-initial (here stem-initial) /*w-/* in a few specific morphemes under given conditions. A similar argument to that just given (for P-11 and P-16, preceding paragraph) can be used to suggest that P-12 follows and is bled by Hardening P-18. Thus a form like */-Waibi//* 'mother' will become */-bibi/ if the environment for P-18 is met (preceding morpheme ends with stop or nasal), but if P-18 fails to apply P-12 can then delete the */w-/*.

Indeed, the argument for having P-18 precede P-12 is stronger than that for having P-18 precede P-11 (since not all of the prefixes affected by P-11 occur in hardening environments). We conclude that P-18 precedes and bleeds P-12, though it is technically possible to avoid this by building in the appropriate restrictions on the application of P-12.

P-12 and P-46. V-Truncation P-46, which accounts for such reductions of noun-class prefixes as */nara-/* */n-ar-/* before a high vowel, applies to the output of P-12: nara-w-ib1 P-12 nara-n-ib1 P-46 n-ar-ib1/ 'your mother'

Hence P-12 precedes and feeds P-46.

P-12 and P-46, P-12 likewise precedes and feeds VV-Contraction P-46, which applies instead of P-46 when the vowel which follows
In so that the latter will in fact lengthen the vowel between the two /a/-vowels and thus produce /na-awan-nj/, for them P-12 would be followed and countered by P-12.

P-13 and P-18, P-13, k- Palatalisation, is designed to account for the apparent alternation between //wy-wu// and //wi-wu// as forms of 'to scorch'. The relationship between P-13 and Hardening P-18 is problematic.

The most obvious interaction is that P-13 precedes P-18, since the initial /y/ may be hardened to /j/ and the variant initial /w/ can be hardened to /g/.

We will therefore conclude that the only clear ordering relation-ship is that P-13 precedes P-18, while the possible cyclical application (P-18, P-13, P-18 again) is kept in mind as an intriguing but uncertain elaboration.

P-13 and P-31. It was possible to elicit //yi-wu// 'to scorch' with compound initial //yi-wu//, related to noun //yi// 'raft, nest'. The resulting geminate //yi// is simplified by Geminate-Contraction P-31

Thus P-13 (as we formulate it, anyway) precedes and feeds P-31.

General remarks on P-13. Since this rule applies only to one root, and only a few relevant compounds were elicited, we are not completely confident either about how to formulate the rule or about fine details of ordering (e.g., in connection with P-18).

However, if our formulation is fairly on the mark we can venture the following. P-13 is a lexically specific rule operating partly without reference to the phonological segments in the preceding morpheme (i.e., on the basis of post-inflectional vs. post-derivative-locational location), but perhaps with some attention to preceding segments in the post-derivative case. Like other lexically specific rules paying little or no attention to precise neighbouring segments, it precedes P-2 (Initial Reduplication). It also precedes P-9, P-18 (in clear cases), and P-31, all of which appear to act as lower-level adjustments operating mainly at morpheme boundaries. There is a possible argument for cyclical ordering vs. a possible ordering (e.g., in connection with P-18 inside the stem and the second applying at the boundary between stem and inflectional prefix, but this is not certain either factually or analytically.

P-14 and P-44. yr-Contraction P-14 might interact with

Monosyllable-Lengthening P-44 in the (uncommon) combination of a Nonpast-t verb form (mainly future negative) with Locative //ruj//:

- ni=ha-yruj
- numi=hruj
- P-14 or P-15 numi=hruj
- P-44 /numi=hruj/ 'where he will (not) see him'
- P-44 will apply to the verb form //mi=hruj//, lengthening it to //mi=hruj//, regardless of whether the form is followed by //ruj/

Whether the deletion of //yr// in the form above is due to

//yr// → //yr// (P-14) or //yr// → //yr// (P-15), this deletion should occur before P-44 so that the latter will in fact lengthen the stem vowel. Consider now a distinct derivation:

P-14 /ni=ha-yruj/ 'where he was standing'

This differs from the preceding derivation since the vowel preceding the //yr// (here Past-1) is not //a/, so there is no question of 1y-Contraction P-15 applying and P-14 is definitely necessary in the derivation. In //mi=ha-yruj//, I tend to hear a past but not full lengthening of the vowel in //ha//. While there may be some inter-speaker variation in this respect, for speakers with unlengthened //ni=ha-yruj// we should have P-14 apply after P-44 (in order that P-44 not apply). Turning back to

§3.52

P-14 /ni=ha-yruj/
the first derivation above, /nu=ni:-¢-ruj/ with /-¢-/ representing
earlier /y// was described as showing the operation either of
P-14 or P-15, which in this instance overlap (have the same effect).
In the light of our second derivation, it now appears that it was
P-15 rather than P-14 applying in the first derivation. The
order of application indicated by the combination of the two
derivations is thus P-15, then P-44, then P-14.
So P-14 follows and counterfeeds P-44.

P-1, P-14 and P-50. In the derivation of /nu=ni:-¢-ruj/ on the
previous page, if //nu=ma-y-ruj// is the correct base form we do
not want P-14 to apply before V-Fronting P-50. If P-14 were the
first rule to apply, we would get */nu=ma-¢-ruj/, hence output
*/nu=ma-¢-ruj/ or */nu=ma-¢-ruj/. We do not want to delete the
//-y// suffix until after this element has induced V-Fronting,
by which the preceding //-a// in the verb root is shifted to //I//.
P-14 therefore must follow P-50.

P-15 and P-44; P-15 and P-29. In the derivation of /nu=ni:-¢-ruj/
on the previous page, we indicated that either P-14 or P-15 should
apply after P-50 but before P-44. Our later discussion in the same
section showed that in other contexts P-14 can follow P-44, so
in /nu=ni:-¢-ruj/ we conclude that it is P-15 and not P-14 which
is at work.

Thus P-15, 1abbage, follows and is fed by V-Fronting P-50.
Also, P-15 precedes and feeds Monosyllable-Lengthening P-44.

P-16 and P-18. Lenition P-16 is a lexically restricted rule
accounting for stop/continuant alternations at an early level,
depending on the position of the root in question in the word
(immediate postinflectional vs. postderivational including
compound-final position). Roots whose early initial segment, e.g.,
//dh// vs. //lh//, is determined by this rule undergo later,
lower-level rules. Specifically, when a continual like //th/;// is
preceded by a morpheme ending in a hardening consonant (stop or
nasal), it is hardened by P-18 to a stop regardless of whether it is
a true underlying //th// or an intermediate //th// derived
from an even more abstract //dh// in our analysis:
-aw=ghida-
P-16 -aw=ghida-
P-18 -aw=ghida-

... -aw=ghida- 'to block off for' (Benefactive)

Here we get //gh// > //th// by Lenition because Benefactive 
amorph //aw=/ counts as a derivational prefix. However,
since this prefix ends in a stop archiphoneme //G//, it induces
subsequent Hardening P-18 back to //gh//. The stage with //th// is
necessary, however, since nu-Identity P-1 does not apply, as it
would to this form if we had root-initial //dh// at the appro-
rigate stage in the derivation.

P-16 precedes and feeds P-18.

P-16 and P-31. Occasionally we get a geminate consonant cluster
across a boundary because of P-16, inducing Geminate-Contrac-
tion P-31 to apply:
-ay=yalalaga-
P-16 -ay=yalalaga-
P-31 /-ay=yalalaga/- 'nest' to stick out'

On the other hand, P-16 may temporarily alter an underlying
geminate cluster, threatening to bleed P-31, but in these cases it
happens that P-18 intervenes and restores the geminate so that
P-31 can apply after all:
-lw=yalalaga-
P-16 -lw=yalalaga-
P-18 -lw=yalalaga-
P-31 /-lw=yalalaga/- 'firewood to stick out'

In any event, P-16 clearly precedes P-31.

General remarks about P-16. This rule is an early, lexically 
specialized rule applying regardless of the specific phonological
segments across the morphem boundary. It precedes other rules
with which it interacts P-1, P-18, and P-29. P-17 and P-16, Rigu-Lenition P-17, a minor rule relating the
adjectival noun /gigu// 'raw, cooked' to its compound-initial form
/-rigu-// or /-rigu/- (regardless of phonological environment), can
feed Hardening P-16:

P-17 /-gigu=a-n a-
-aw=gigu=a-n a-

... /-aw=gigu=a-n a/ 'I will eat it raw'

P-17 and P-27. We presume that /-rigu-// derived from /-gigu-
// as compound initial would, if in turn preceded by another
derivational morpheme ending in //G//, undergo Geminate-Contrac-
tion P-31. However, no actual such combinations are known to occur.

General remarks on P-17. This is a lexically restricted rule
not referring to preceding phonological segments. Naturally, it
precedes other rules with which it interacts P-2, P-18, and
P-16 and P-27. Hardening P-18 precedes and feeds Nasal-
Assimilation P-27:

P-16 /gigu-aba-
P-18 /gigu-aba-
P-27 /-gigu-aba/- 'I will tie it up'

P-18 and P-28. Semivowel-Deletion P-28 is a rule applying to
certain morphemes, such as postposition /-wugu// 'still, only'
and Relative suffix /-yin//'. The rule deletes the initial
semivowel under some circumstances. However, when such morphemes
are preceded by a stop or nasal, Hardening P-18 acts to bleed P-28,
with /-yg// > /o/ and //G// > //G//. It is therefore appropriate to
order P-18 before P-28, though it would be technically possible to
avoid an explicit ordering relationship by building some restric-
tions into the formulation of P-28:

P-16 /gigu-aba-/ > /-yin// 'when I saw'

As we saw P-18 and P-29. P-18 also precedes Stop-Deletion P-29, which
deletes a stop followed by a consonant under certain conditions.

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P-18 and P-30. Nasal-Deletion P-30 accounts for the deletion of a nasal before certain other consonants including /l/, /j/, and unharded tap /r/. However, nasals are not deleted before //h/ or approximant //y/, which are hardened to /dh/ and /y/ after a nasal (or stop); in lexical items whose initial tap //r/ undergoes hardening to /d/ after stop or nasal, a preceding nasal is again retained. The obvious generalisation is that in a sequence //N/ with a nasal followed by a liquid, if //r/ is hardened to a stop by P-18 the nasal remains, while if //r/ is not hardened and //N/ remains a surface liquid the nasal is deleted. An example where P-18 does not apply:

-yan=/alaga-
P-18 [no change]
P-30=/yan=/alaga-/ 'to make (it) louder'

Since //r/ is not paired with a counterpart stop it cannot be hardened by P-30, so P-30 deletes the nasal. A different example:

-yan=/hurba-
P-18 -yan=/hurba-
P-30 [no change]

...=/yan=/hurba-/ 'to obey'

Here P-18 does harden the liquid to a stop, whereupon P-30 cannot apply (there is nothing wrong in Nunggubuyu with a nasal-stop cluster).

Alternative analyses in which P-18 and P-30 did not have to be ordered relative to each other would require extensive and unnatural complications in formulations of the rules.

Thus P-18 precedes and bleeds P-30. P-18 and P-21. When Hardening P-18 creates a geminate cluster over a boundary, this cluster is reduced by Geminant-Contraction P-31:

P-18 -lhad=dabI-
P-31=/lhu=dabI-/ 'to fall heavily'

P-18 precedes and feeds P-31.

General remarks on P-18. Hardening P-18 is a rule applying mainly to boundaries (though related to more general surface sequencing constraints also applying within morphemes). It follows a number of rules which operate within roots or stems without reference to affixal environment, several of these rules also being lexically specialised: P-1, P-2, P-4, P-13, P-16, P-17. On the other hand, P-18 precedes several other boundary adjustment rules involving consonant clusters: P-27, P-28, P-29, P-30, P-31.

In the case of P-12 (Stem ¥-Deletion), we have a slight anomaly in that P-18 seems to apply first, although P-12 is a lexically restricted rule. The relevant applications of P-18 are entirely within a stem (e.g., at the boundary between root and a derivational prefix). This suggests the possibility that there might be an initial application of P-18 within a stem.

Along the same lines, we observed that while P-18 may follow P-13 (w.-Palatalisation), there is also an (incomplete) indication that P-18 may precede this rule in some derivations. There is thus some suggestion that P-18 may have a cyclical character, applying at one point within a stem, then applying later at the boundary between stem and inflectional prefix.

General remarks on P-19. Leftward Hardening P-19 happens not to interact with very many other rules. P-19 hardens a continuant to a stop in stem-initial (postinflectional) position. The inflectional prefix usually ends in a vowel, in which case no consonant-cluster-adjustment rules apply. Even when the inflectional prefix ends in a consonant (as in /ba-/, /pa-/, a potential consonant cluster over the boundary is avoided by the insertion of /-H-n Hu/- between prefix and stem and nHu-Epenthesis P-1.

The rules with which P-19 interacts in actual derivations are P-18 and Palatal-Deletion P-26. As we have observed earlier, P-1 follows P-19 since the hardened (stop) resulting from P-19 is treated as a stop in the environment for P-1. (P-19 is thus unlike P-18, the other hardening rule, since P-18 follows and counterfeeds P-1.) On the other hand, P-19 follows P-2 since this reduplication rule operates as though the root in question began with a consonant other than a stop. Thus the order of application is P-2, then P-19, then P-1.

As pointed out earlier, this is apparently inconsistent with the independently established ordering P-1, then P-2. However, a cyclical approach beginning with rules applying to stems only and then allowing some rules to reapply at outer morpheme boundaries can account for the data.

General remarks on P-20 and P-21. These are the two rules inserting /-t/ at a morpheme boundary where the second morpheme begins in a vowel and the first ends in /n/, We have shown earlier that both rules follow P-1 since episenthtic /-H-n Hu/- is not added; P-20 likewise follows P-2 and P-4. On the other hand, we have indicated that P-5 follows both P-20 and P-21. On closer inspection, this simply means that P-5 is a competitive rule (inserting /g/ or /h/ rather than /d/), and the relative ordering is merely a device to insure that either P-8 or a d-Insertion rule, but not both, can apply at the same boundary. P-20 and P-21 were ordered before P-8 simply because P-20 and P-21 apply at restricted type of boundaries and it is easier to have the more general rule P-8 follow them.

P-22 and P-26. As Nasalisation P-22 and Palatal-Deletion P-26 are formulated here it may be necessary to order them:

mil-mI-wiyay
P-22 mil-mI-wiyay
P-26 /mi-mI-wiyay/ 'your children'

However, it could be that P-26 can delete //H// before /n/, in which case a minor extension of P-26 can account for this derivation without assistance from P-22.

General remarks on P-22, P-23, and P-26. Nasalisation P-22 follows nHu-Epenthesis P-1 since P-22 handles consonantal interactions across the boundary between /-H-n Hu/- and the preceding morpheme, but blocks interactions between the morphemes flanking /-H-n Hu/- . The other (less clear) ordering relation involving P-22, its possibly preceding P-26, is discussed just above.

Denasalisation P-23 is a minor rule applying to one suffix combination. It follows P-1 if we assume that P-1 can in theory apply within suffix combinations (so its failure to apply is a fact which must be accounted for). No other orderings involving
P-23 are known.

m-Contraction P-26 has been shown above to precede Final Reduplication P-3. This is apparently due to the fact that P-3 is a late rule operating on an essentially complete output word to create a reduplicated variant.

P-25 and P-31. The contraction of //rr// to /r/ (with tap /r/, not approximant /y/, can be handled by either of the two overlapping rules r-Deletion P-25 //rr// deleted after a liquid) or Gemini-Contraction P-31.

ama-lhaar-ruj

P-25 or P-31 /ama-lhaa-ruj/ 'in the crossing'

Acturally, to be technically correct we should transcribe the output as /ama-lhaar-ruj/ if P-25 is the rule at work, but this is a trivial notational problem.

P-25 and P-31 overlap and cannot be reliably ordered relative to each other.

General remarks on P-25. There do not appear to be any rules which must be ordered relative to P-25. In principle, a rule such as Lenition P-16 or Leftward-Hardening P-19 might involve /r/ → /d/ or /r/ → /l/ in root-initial position, whereupon a preceding morpheme ending in a liquid could trigger deletion of /r/ or some other interaction involving P-25. However, in practice alternations of /d/ and /r/ are rare and unproductive, and I can find no clear exx. showing relative ordering with respect to other rules.

P-26 and P-50. A "palatal-type" consonant such as /j/ can condition fronting of a preceding vowel to /i/ by V-Fronting P-50 before itself being removed by Palatal-Deletion P-26:

\[ \text{yama-jga-} \]

P-50 = yami-ga-

P-26 = /yami-ga/

'to say (it) to (him)'

This form is the Causative of /yama-/ 'to say', though here Causative /-jga-/ has a distinct meaning. P-26 here is optional, so /yami-jga-/ is also a possible output.

P-26 follows and counterbleeds P-31. Underlying //jl// simplifies to /j/. This can be accounted for by either Palatal-Deletion P-26 or Gemini-Contraction P-31. The two rules overlap and we cannot determine the relative order.

General remarks on P-26. Palatal-Deletion P-26 is a low-level consonant-cluster simplification rule. In those cases where it interacts with another rule, P-26 follows. The relevant other rules are P-1, P-22, and P-50.

A similar remark applies to other cluster-adjustment rules including P-7, P-28, P-29, P-30, and P-31. Either Semivowel-Deletion P-28 or Gemini-Contraction P-31 can account for //ww// → /w/ and //yy// → /y/. The two rules overlap and relative order is indeterminate.

P-29 and P-31. Similarly, //gg// → /g/ can be handled either by Stop-Deletion P-29 or Gemini-Contraction P-31. P-30 and P-31. The contractions of //nn// → /n/ and of //ll// → /l/ can be handled by either Nasal-Deletion P-30 or Gemini-Contraction P-31.

P-31 and P-50. Consider this derivation, admittedly involving a rather unusual combination of morphemes:

ni-\*aragama=la-y-\*yin-yun\*m

P-50 \*aragama=la-y-\*yin-yun

P-15 or P-31 ni-\*aragama=la-y-\*yin-yun

\[ \ldots \text{ni-\*aragama=la-y-\*yin-yun}/ \text{ which stood (NA)} \]

Either ly-Contraction P-15 or Geminate-Contraction P-31 deletes the /y-/// suffix, but not until after this suffix has induced fronting of the preceding vowel.

Regardless of whether it is P-15 or P-31 which applies here (I would say P-15), the point is that both of these rules must be prevented from applying prior to P-50, since if they did P-50 could not apply and we would get the incorrect output.

P-31 follows and counterbleeds P-50.

General remarks on P-27, P-28, P-29, P-30, and P-31. These are, like P-26, all lower-level consonant-cluster adjustment rules, and as such they follow all other rules in those cases where ordering must be recognised. Thus P-1 precedes P-27, P-30, and P-31; P-18 precedes all five rules; and P-6 precedes P-29, P-32 and P-50. In-Delateralisation applies to one verb root, and it happens that P-50 must precede and bleed it in one form:

\[ \text{billha-} \]

P-50 = billha-

P-32 [no change]

\[ \ldots \text{billha-y} \]

In other forms of this root, where the stem-final /a/ is retained on the surface, P-32 changes the //lh// to //y//. P-50 precedes and bleeds P-32.

General remarks on P-32. Because this rule applies to a single verb root it is difficult to determine its ordering relative to most other rules; we can cite only the single ordering relationship just discussed. In any event, recall from our initial discussion of P-32 that, while it is possible to set it up as a phonological rule, there is some reason to think that the alternation of //lh// and //y// in this root may involve an ambivalent morphological analysis as either /billha-y/ or /billha-/la/, involving the other verb roots in this inflectional class, /\*y// → '/sleep' and /\*la// → '/to stand'.

General remarks on P-33. Initial Nasal-Deletion P-33 applies to word-initial nasal-stop clusters, deleting the nasal. It interacts with no other phonological rules.

P-34 and P-36. Feminine Prefix-Truncation P-34 and rv-Truncation P-36 are rules which can apply to Fsg noun-class prefix //nara-///. P-34 applies only before //r-\*arn//, a 2nd/3rd person marker in some kin terms, and shortens //nara-// to //n\*a-//. On the other hand, P-36 is a very general rule, here converting //nara-// into //n\*a-// optionally before a consonant. If P-34 and P-36 are distinct rules, as in this analysis, it is advisable to order P-34 first so that the output in the relevant kin terms will always be //n\*a-// without the option of showing up as //nara-//. P-35

\[ \ldots \text{nara-ran} \]

P-34 \[\text{nara-ga} \]

P-36 [inapplicable]

\[ \ldots \text{nara-ga} \] (Fsg prefix plus 2nd/3rd marker)
We conclude that P-34 precedes and bleeds P-36. However, like some of the other ordering relationships, this is essentially a matter of analytical convenience, since P-34 and P-36 are rules applying to similar inputs and the only point of the ordering is to specify to which inputs P-34 applies and (thus) to which others P-36 applies. Indeed, it might be technically possible to replace P-34 by an alternative analysis: we would say that P-34 applies to \( /\text{n ara-ram}^{\perp}/ \) (in this instance P-36 would have to be obligatory), and we could set up a minor later rule that would reduce the intermediate representation \( /\text{n ara-ram}^{\perp}/ \) to the attested \( /\text{n ara-ram}^{\perp}/ \). Therefore we should not make too much of the ordering relationship between P-34 and P-36.

There are no other ordering relationships involving P-36, P-37, and P-38. Prefix-Truncation P-36 and V-Truncation P-36 have the same outputs in the cases of FSg/WARA \( /\text{w ara-/-w ara-}/ \) and P/\text{WARA} \( /\text{w ara-/-w ara-}/ \), though the two rules have different effects on other prefixes. In forms like \( /\text{n a-da-gu}-/ \), either P-35 or P-36 could have been at work, technically speaking, though I feel P-35 is the correct rule here (since this rule is characteristic of Immediate demonstratives). Order of application is indeterminate.

There are no other clear ordering relationships involving P-35, P-36, and P-37. Consider this derivation of a pronominal prefix:

\[
\begin{align*}
\text{P-36} & \quad \text{P-37} \\
\text{w a-r i-} & \quad \text{w a-r i-} \\
\text{... w a-r i-} & \quad 3 \text{Pl/WARA} \rightarrow \text{ANA} w a
\end{align*}
\]

Here P-36 is a rule applying to the entire pronominal prefix, otherwise \( /\text{w a-r i-}/ \), optionally deleting the \( /w/ \) syllable with compensatory lengthening: the rule can apply only when the following morpheme begins with a consonant. In the context of the abstract analysis of pronominal prefixes (Chapter 9), we claim that the quality of the first vowel in \( /\text{w a-r i-}/ \) is derived from the quality of the second syllable by V-Assimilation. Since the second syllable is eliminated by P-36, P-37 must have already applied in the derivation above before P-36 does.

General remarks on P-36. Though restricted to prefix-final position and unrelated to surface canonical constraints, Prefix-Truncation P-36 does seem to be a fairly low-level rule. Unlike other rules applying within pronominal prefixes, it is sensitive to the phonological segments across the boundary, and it is optional.

The following ordering relationships have been noted above.

- \( w_{3} - \text{Deletion} \) seems to precede P-36 (at least in my data on this matter; informant variation is expectable in this case); Feminine Prefix-Truncation P-34 seems to precede P-36, though this is really just a matter of specifying which representations undergo P-34 and which undergo the more general rule P-36. V-Assimilation P-37 rather clearly precedes P-36 as just seen.

P-37 and P-38. In our abstract analysis of pronominal prefixes (Chapter 9), on occasion one vowel acquires surface quality by V-Assimilation P-36, and this quality is then copied onto an earlier vowel by V-Assimilation P-37:

\[
\begin{align*}
\text{P-37} & \quad \text{P-38} \\
\text{W a-r a-n w a} & \quad \text{n w a} \\
\text{P-37} & \quad \text{P-38} \\
\text{W a-r a-n w a} & \quad \text{n w a} \\
\text{P-37} & \quad \text{P-38} \\
\text{W a-r a-n w a} & \quad \text{n w a} \\
\text{P-37} & \quad \text{P-38} \\
\text{W a-r a-n w a} & \quad \text{n w a} \\
\end{align*}
\]

Thus P-38 precedes P-37.

P-37 and P-38. V-Assimilation P-37 includes a subrule which is involved in the derivation of one adverbial form:

\[
\begin{align*}
\text{P-37} & \quad \text{P-38} \\
\text{Y u-w a-g u-n i} & \quad \text{Y u-w a-g u-n i} \\
\end{align*}
\]

As the rules are formulated, P-37 should precede P-42. However, since the formation is quite irregular phonologically there may be alternative derivations, or else \( /\text{y u-g u-n i}/ \) could be taken as an independent lexical item with no relationship to Distant demonstrative stem \( /\text{y u}/ \).

P-37 and P-48. P-37 and P-49. V-Assimilation P-37 regularly handles cases of regressive assimilation of vowel quality. In some derivations this rule would seem to precede other rules which contract vowel clusters, w3-an-Contraction P-48 and the more general VV-Contraction P-49. Consider first this derivation:

\[
\begin{align*}
\text{P-37} & \quad \text{P-42} \\
\text{n a-w a-a n u} & \quad \text{n a-w a-a n u} \\
\text{P-37} & \quad \text{P-42} \\
\text{n a-w a-a n u} & \quad \text{n a-w a-a n u} \\
\end{align*}
\]

This is because the /a/ in the attested form has acquired its vowel quality by V-Assimilation P-37, although the other vowel in question is later deleted by P-46.

Another ex. involving a pronominal prefix:

\[
\begin{align*}
\text{P-37} & \quad \text{P-49} \\
\text{W a-b a-a n u} & \quad \text{W a-b a-a n u} \\
\text{P-37} & \quad \text{P-49} \\
\text{W a-b a-a n u} & \quad \text{W a-b a-a n u} \\
\end{align*}
\]

This ex. shows that P-37 must be applied before P-49 in the same way it applies before P-46. Another ex.:

\[
\begin{align*}
\text{P-37} & \quad \text{P-49} \\
\text{B u-r a-/-a} & \quad \text{B u-r a-/-a} \\
\text{P-37} & \quad \text{P-49} \\
\text{B u-r a-/-a} & \quad \text{B u-r a-/-a} \\
\end{align*}
\]

This is a cover term for the following rule:

\[
\begin{align*}
\text{P-37} & \quad \text{P-48} & \quad \text{P-49} \\
\text{B u-r a-/-a} & \quad \text{B u-r a-/-a} & \quad \text{B u-r a-/-a} \\
\end{align*}
\]

It is the underlying /a/ in //ru//- that is being assimilated. Since the vowel of /ru/- reflects the underlying (not surface) form of the following vowel, P-37 must precede P-49, P-37 precedes P-48 and P-49.

General remarks on P-37. V-Assimilation P-37 is a cover term for a number of minor vocalic changes applying within tightly bound morphological units (verb and inflectional suffix, component morphemes within pronominal prefix, specialised adverbs). As such, we expect it to apply at a very early stage.

Indeed, arguments have been presented to show that P-37 precedes P-2, P-4, P-42, P-48, and P-49 (though different subrules of P-37 are involved). The one rule which can precede P-37 is
V-Ablaut P-38, which is a similar set of irregular and lexically restricted developments.

General remarks on P-38. V-Ablaut P-38, a set of distinct subrules changing vowel quality with no apparent phonetic basis at all (unlike P-37 and P-50, for example), applies to specific high-frequency combinations (verb plus inflectional suffix, component morphemes within pronominal prefix, etc.). It precedes other rules to the extent that it interacts with them. Specific rules known to follow P-38 are P-2, P-4, and P-57 (all of which are themselves rather early rules).

General remarks on P-39. Interjection formation, involving the lengthening of the final vowel with an /u/ added for good measure, is obviously a very low-level rule which takes as its input an ordinary surface word and makes slight changes in it to convert it into an exclamation. We have not discussed details of which particular phonological rules precede it since it obviously follows all of them.

General remarks on P-40. Redup-Shortening, which specifies that the first vowel of a stem preceded by a bisyllabic -Rdp- segment must be short, does not have much opportunity to interact with other rules since it is usually flanked by consonants within the stem. As a technical matter, we have ordered P-40 after the main Initial Reduplication rule P-2 (which accounts for the form of -Rdp- itself), so that we know how many syllables are in -Rdp- at the time when P-40 applies; however, there are other analyses possible in which P-40 is incorporated into P-2, so we should not make much of the ordering here.

The only other potential interaction of P-40 would be with VV-Contraction P-49. For example, if the stem is /-ara=/ 'to abandon', the Rdp Shortening should be /-ara='ru-/ after P-2 and then /-ara=/ after P-40, unless P-49 applied between P-2 and P-40. The trouble is that the actual output, /-ara='ru-/ is compatible with either /-ara='ru-/ or /-ara=/ as an immediate input, since VV-Contraction will give a long output vowel regardless of whether the second input vowel is long or short. While I would presume that P-40 would be earlier than P-49, this cannot be demonstrated by crucial exx.

P-41 and P-49. Consider this derivation of a pronominal prefix containing three component morphemes:

/ a-wan- / 'wind'  
/ a-wan- / 'wind'.  
/ a-wan- / 'wind'.

Non-sg-Shortening P-41, which insures that the vowel before /-v-/- in a pronominal prefix will be short no matter what its underlying or intermediate length, appears to be a late rule since we get short vowels in derivations like that just given, although we should otherwise get a preceding long vowel. Because such interactions are limited to pronominal prefixes under the maximally abstract internal analysis of Chapter 9, one could argue that the relevant instances of P-49 are on an early cycle limited to the prefix-(complex). However, I know of no clear evidence (such as an ordering paradox) which would compel us to identify distinct cyclical occurrences of P-49. It is true that the whole pronominal prefix, here /-ara=/, can undergo P-49 when following a morpheme beginning in a vowel, hence /-ara=ma-nana/ (after P-4) becoming /-ara=ma-nana/ 'we [INPL] are hitting them'. However, it appears technically possible to have this instance of P-49 applying at the same time as its application within the pronominal prefix.

P-41 therefore follows P-49. There appear to be no other ordering relationships involving P-41.

General remarks about P-42, P-43, P-44, and P-45. These are rules (mostly minor) involving length alternations; only P-44 (Monosyllable-Lengthening) has any productivity.

Adverb-Shortening P-42 follows V-Assimilation P-37 under the analysis proposed here (where P-37 is assumed to be part of the derivation); however, the analysis is debatable.

Length-Shift P-43 applies to one noun root (and its noun-class prefix) and interacts with no other rule.

Monosyllable-Lengthening P-44 precedes Initial Reduplication P-2 and follows iy-Contraction P-15 in the analysis presented here. Verb-Lengthening P-45 does not appear to interact with any other rule.

P-46 and P-49. V-Truncation P-46 deletes the final vowel of a bisyllabic noun-class prefix before a morpheme beginning with a high vowel. Since VV-Contraction P-49 does not apply here (creating a long output vowel), we order P-46 before P-49 (bleeding order):

/ a-wan- / 'wind'  
/ a-wan- / 'wind'.

General remarks on P-46. V-Truncation P-46 appears to follow Stem-v2-Deletion P-12 and Velar-Insertion P-8 and to precede VV-Contraction P-49.

General remarks on P-47. y1-Elision P-47, a rule applying only to certain forms of one verb root, has the appearance of being fairly low-level (though lexically specific) simplification of a haplological character. However, no specific ordering relationships have been established since the verb form in question does not undergo any other rules which would have an overt surface effect. P-48 and P-49. w-an-Contraction P-48 reduces /-an-/ to /w-/- after a vowel, where /-an-/ (from earlier /-w-an-/) is the "B" morpheme in pronominal prefixes.

/ a-wan- / 'wind'  
/ a-wan- / 'wind'.

P-49 is essentially a rival for P-49 (which would have given */a-w-an/ with long vowel), we order P-46 before P-49 to insure that P-49 (the more general rule) does not apply. P-48 bleeds P-49.

General remarks on P-48. This is a rule applying only within pronominal prefixes, and the specific formulation of the rule is debatable since the relevant output forms show the cumulative effect of several rules. It appears that P-48 as formulated here follows P-41 and V-Assimilation P-37, and precedes y-Insertion P-10 and P-49.
General remarks on P-49. VV-Contraction P-49 precedes a few rules in our formulation. First, it precedes Final Reduplication P-3, a somewhat surface-oriented reduplication applying to some demonstratives. The other rules which follow P-49 are Non-shortening P-41, which may shorten a long vowel created by P-49; w₁-Deletion P-9, which creates surface vowel sequences which do not consistently contract by P-49; and γ-Insertion P-10, a rule which competes with P-49.

Rules which precede P-49 are Initial Reduplication P-2 which often creates vowel sequences aseparable to P-49; V-Assimilation P-37 (which may involve an underlying vowel in its conditioning environment which is later lost by P-49); Stem w₂-Deletion (which feeds P-49); and a number of rules which essentially compete with P-49 and are represented here as bleeding rules in our formulation. First, it precedes Final Reduplication P-49; and y-Insertion (which may involve an underlying vowel in its conditioning environment) which it interacts:

In the two following pages we summarise the rule orderings just identified (as separate entities) and formulated. For example, a number of minor, highly lexicalised shifts of a vowel to /1/ next to a “palatal-type” consonant. It precedes the other rules with which it interacts: P-2, P-4, P-14, P-15, P-26, P-32.

3.53 Diagrams of rule ordering.

In the two following pages we summarise the rule orderings just described in tabular form.

On the first following page, we present a diagram in which each numbered rule is given in sequence in the central column. For each such rule, the other rules which precede it are listed by number to the left, and the rules which follow it are listed on the right. (If more than one rule is given on the left or right side, these rules are represented here as bleeding rules in our formulation.)

To make this diagram more comprehensible, we have identified (as separate entities) and formulated. For example, a number of instances of ordering relations involving Hardening P-18 can be handled either by having P-18 precede the second rule, or by building in a restriction on the second rule (leaving rule ordering indeterminate). In the diagram, some of the more questionable rule orderings are indicated with parentheses () to warn readers of this.

On the next page, we show schematically rule ordering involving those rules which, in the first diagram, are indicated as following one or more other rules and as preceding one or more other rules. The second diagram omits orderings involving rules which do not follow any other rule, and rules which do not precede any other rule (as well as rules which neither precede nor follow another rule). The purpose of the second diagram is to demonstrate the extent to which the orderings in the first diagram are consistent with each other (so that if rule A precedes rule B, and B precedes C, C does not precede A). Obviously, rules which only precede or only follow other rules will not cause ordering problems and cannot be omitted from the second diagram.
3.54 Final remarks on phonology.

Obviously there are a number of alternative ways to analyse some phonological alternations, and various ways to present the overall system in one theoretical/notational format or other. One general remark is that the rules can be (at least roughly) grouped into categories based on morphological context.

We begin by distinguishing morphophonemic (morphologically restricted) rules from low-level rules which apply to any relevant combinations. We now consider types of morphophonemic rule, using the schema in Figure 3-2, above, for verbs (other word classes show a generally simpler pattern).

To begin with, some rules apply specifically within the "core" sequence ROOT-DER2-INFL, where DER2 is a derivational suffix (Refl, Recip, Caus, see Chapter 10), and INFL is an inflectional suffix expressing tense/aspect/mood/negativity (Chapter 11). For example, many idiosyncratic minor rules listed as subrules of V-Assimilation P-36, V-Ablaut P-38, and V-Fronting P-50 apply at $R_1$ and/or $R_2$ boundaries.

We would presume that a further bracketing might be made, with ROOT-DER2 as a "inner core" sequence and INFL coming in at the next cycle. However, there is no convincing evidence for this. The major reason is that these core morphophonemic rules operate in such a way that if there is a nonzero DER2 morpheme, rules triggered by INFL do not undo (previous?) rules triggered by DER2 (affecting ROOT).

The possible counterexample is /*=n'aw-a-*/'will die', if taken as /*=n'awa-i-*/ (VV-Contraction P-49 on ROOT-DER2 cycle) /*=n'awa-i-*/ (V-Ablaut P-36 on next cycle). However, regular Refl forms in /*=ROOT-i-*/ normally take Nonpast /*-n"*/ without ablaut instead of /*-n*/ with ablaut (i.e., belong to $L_1$ rather than $L_2$ verb class), and /*=n'awa-i-*/ 'to die' might be thought of as a synchronically unsegmentable root rather than as the Refl of /*=n'awa-*/ 'to cover up'.

One feature of the core morphophonemic rules is that they are contact rules (as opposed to 'blind' rules, cf. below), in the sense that they appear to involve interactions among actual phonological segments across the boundary. Though morphologically restricted, they are in most cases motivated (assimilatory, etc.).

A quite different set of rules, blind L-2 rules, apply to the initial segment of ROOT when one or more of slots 3 and 4 are filled by a nonzero morpheme, but not if slots 1 or 2 are directly adjacent to ROOT. These rules, which are morphophonemic and restricted to lexically specified roots, are 'blind' in the sense that the specific phonological segments across the boundary are irrelevant.

---

**Figure 3-2**

Model of Word Structure (Verb)

- slots $1 \ldots , 7$ ($8$)
- morphemes $[[FRON]] [[[RDp, [[DER, [[[ROOT-DER2-INFL]]]]]]]$ ($X$)
- submorphemes $CM_1, CM_2 \ldots$
- boundaries $P_1, L_4, L_3, L_2, L_1, P_1, P_2 (R_3)$

Note: obligatorily filled slots are $1, 5, 7$.
These rules are \textit{w}$_1$-Insertion P-6, Stem \textit{w}$_2$-Deletion P-12, and Lenition P-16. There are also some very similar rules, which however are not totally 'blind', since they may be affected or blocked when the preceding morpheme ends in certain segments; these are Homorganic-Semivowel Deletion P-5, V-Palatalization P-20, \textit{w}$_2$-Vowel Deletion P-12, and V-Truncation P-36. Moreover, V-\textit{w}$_2$-Deletion P-20, and V-\textit{w}$_3$-Deletion P-12, apply both to verbs and nominal prefixes. These rules collectively constitute a set of \textit{w}$_1$ \textbullet contact rules (morphophonemic).

In addition to the morphophonemic rules we have considered, there are also many low-level rules which apply later, generally converting unacceptable segmental sequences into acceptable ones (cf. the clustering possibilities dealt with in Chapter 10). Most of these affect consonant combinations occurring over boundaries, including regressive assimilation (Nasalisation P-22, Nasal-Assimilation P-27), deletion of pre-boundary segment (fr-Contraction P-14, Velar-Insertion P-49, Soft-Deletion P-29, Stop-Deletion P-30, and perhaps Cephalo-Contraction P-31), and deletion of post-boundary segment (Semivowel-Deletion P-28, r-Deletion P-25). The important Hardening rule P-18 also belongs here. These are contact rules with strong surface motivations.

V-Ablaut 2.46 is another important rule, but difficult to categorise in this framework. It applies to a wide variety of vowel sequences across boundaries, including all of \textit{L}$_3$ to \textit{L}$_4$ in the figure with substantially the same details. It also applies to later boundaries like \textit{R}$_1$ (with Refl /-i-/) and \textit{R}$_2$ (several exx. in Chapter 11), as well as to numerous other suffixal boundaries with personal pronouns and demonstratives, but in the suffixal instances the details for the output vowel are somewhat different. Although P-40 has some affinities with other low-level rules, since it restructures bad sequences of segments at boundaries, the specific vocalic case differs, depending on morphophonological location (and possibly to have been affected by functional factors in the suffixal exx.).

As the analysis in Chapter 9 shows, it is possible to argue that \textit{RON} in Figure 3-2 is actually a complex of component morphemes (CM$_1$, CM$_2$, etc., in the figure), ranging from zero to several such components. The impact analysis in that chapter requires a number of purely morphological, pre-phonological morpheme rules (additions, deletions, reorderings, substitutions), plus early allomorphic specification rules for the CM$_3$, to which phonological rules then apply. Some of these phonological rules are identical to regular low-level rules like Hardening P-18, but there are also some fairly early morphophonemic rules which apply only within \textit{RON}. These include some subrules listed above under V-Assimilation P-37 and V-Ablaut P-36, but also Prefixal \textit{w}$_3$-Deletion P-11 and \textit{w}$_2$-An-Contraction P-46, which have the same general appearance, though differing in precise form, as core morphophonemic rules described above. It is reasonable to conclude that \textit{RON} undergoes a reasonably complex internal cycle of early morphophonemic rules, and then at a later stage undergoes rules applying at its boundary (\textit{L}$_4$) with the next following nonmorphonemic morpheme. For this reason, I represent \textit{RON} in Figure 3-2 with its own brackets, indicating that the rules apply to the CM$_3$ within its scope. We may refer to these as CM morphophonemic rules.

In the figure, the optional (X) in slot 8 represents a case-suffix subordinator or postposition (see Chapter 16, also §12.21). These
elements are rather peripheral for verbs, and the rules which apply to them are the low-level rules like Hardening P-18.

This framework accounts for most of the phonological rules in this chapter. The main exceptions are Final Reduplication P-3, an unusual rule used in some demonstrative derivations, applying to surface input word forms to create new derived words (contrast the more common Initial Reduplication P-40, Adverb-Shortening P-42, Length-Shift P-43, Nonsyllable-Lengthening P-43), cf. also the more strictly morphophonemic length rules (Nonsyllable-Shortening P-40, Verb-Lengthening P-45).

The analysis just presented will work fairly well for nouns, pronouns, and demonstratives (as well as verbs) with some adjustments. For nouns, we equate inflectional noun-class prefixes (§4.7) with FRON, consider Pl prefix allomorph /-mij-/ (§4.17) and Multiple /-wara(G)/- (§4.17) among others to belong in the area of slots 3 and 4 (INFL-CPD), recognise Human Sg /-yun/ or /-nun/ and perhaps Dual /-waj/ (§4.15) to correspond in location to INFL (slot 7), and case suffixes and postpositions to belong with X (slot 8) in Figure 3-2.

All of this, of course, rests on acceptance of the synchronic reality of the various phonological rules we have formulated. Because of the opacity of the underlying representations and the complexity of our derivations, it could reasonably be objected that a more surface-oriented analysis might be called for. In such an analysis, we would probably take the pronominal prefixes (FRON) as ready-made, without internal structure, or at least with less abstract representations than in Chapter 9. We would also take combinations involving DER2 and/or INFL in Figure 3-2 as "given" by the lexicon, perhaps with some form of inflectional-class paradigm component, rather than having DER2 and INFL just added to ROOT with rules then accounting for outputs. The 'blind' L1-2 and L1-3 rules would also be relegated to the lexicon. The surviving phonological rules would be basically the low-level rules along with some other rules affecting the relatively transparent boundaries like L1 to L4 and R3.

Thus, a word like /nambambi-yaragara=/'ru-n/ 'they[PL] will cut us[IMN]' instead of being set up as

[[n^a-chan=]-[a=ru-ni]]

with early cycles of rules applying within the FRON brackets at the beginning and the inner-bracketed ROOT-INFL sequence at the end, with later rules applying at the remaining boundaries, would come in as

[[nambambi=]-[a=aragara=]-[a=ru-]]

with most of the work already done by the lexicon and the paradigm component, leaving the remainder to the relatively transparent phonological rules still recognised. Similarly, /nambari-agl=yg/ 'I will not make it call out', will not be put in as

[[n^a-chan=]-[a=adaj-ga-y]]
Chapter 4

Noun morphology

4.1 General.

In this chapter we deal with basic nominal morphology. We exclude information about kinship terms, which have many special features and are treated separately in the next chapter. Some demonstrative constructions discussed in Chapter 7 function as derived nouns, but their special features are dealt with in that chapter, not here. Compounds and other derivational formations are handled in Chapter 14 but the present chapter includes treatment of noun-class and number-marking even when derivational (as opposed to inflectional) affixes are involved.

A typical noun in Nunggubuyu might consist of a stem preceded by a noun-class (NC) prefix and followed by a case suffix. Thus /a-wujugu-wuy/ 'to the pond' consists of noun /wujugu/, with a NC prefix /a-/ of the ANA class (punctual prefix series), and Allative-Dative case suffix /-wuy/, here in allative sense. Neither the prefix nor suffix slot is obligatorily filled; the simple form /wujugu/ 'pond, billabong' can also occur, though one might say that there is really a /-y/ Nominative suffix here. We refer to the regular NC prefixes (including punctual and continuous series for nonhuman categories) and to the case suffixes as (outer) inflectional. There is also a series of inner or derivational NC prefixes which take a noun root and convert it into a derived noun with the NC category specified by the derivational NC prefix, which can thus be preceded by the regular inflectional NC prefix. The noun /wujugu/ happens to have one such derivative, /ma-wujugu/ → /ma-wurugu/ 'billabong'. The Allative-Dative form of this would then be /maa-ma-wurugu-wuy/ with /maa/ instead of /a-/ since the derived noun is of MANA class. The other important morphological features are number markers. These include Human Sg /-yung/ and allomorphs, Dual /-w2a:/, and a variety of Pl markers depending on the root (including Initial Reduplication by rule P-2). Number markers can be considered formally derivational since they occur directly next to the root, are often lexically specialised, and are flanked by inflectional prefixes and suffixes. (These terms are used differently for verbs.)

§4.1
There are also a number of postpositions (or postpositional suffixes) which go on at the very end of the word (after inflectional suffixes, if present). Phonologically these are suffixes rather than enclitics and interact with the preceding morpheme by phonological rules; however, they are outside of the scope of reduplication (by P-2) and are, in some cases, functionally related to the whole clause and just happen to be pegged onto a noun in a given case. See §4.32.

Please note that inflectional and derivational noun-class markers are abbreviated NC and NAdj, respectively. At various points in the grammar we will refer to the former as NC markers, it being understood that unless specified to the contrary we are talking about the regular inflectional prefixes.

Beginning with this chapter we will be making numerous textual cross-references. Readers may wish to review the notation for such references provided at the beginning of the volume.

4.2 Common and adjectival nouns.

In the published dictionary I mark some nouns as "NAdj" and others with notations beginning with "No" ("NoNc" or the like). These designate adjectival and common nouns, respectively.

Nouns functioning as adjectives do not constitute a sharply distinct word class in Nunggubuyu, but they do have derivational and syntactic possibilities not permitted with common nouns and must be set off as a subclass of nouns. Both types of noun can take the same basic inflectional affixes; one can say, for example, */wu=yuri/ 'the big pond' whereas with the common noun /wuyu/n 'pond' and the adjectival noun /galyurungu/ 'big' have the same NC infl and case affixes. Both types of nouns also have PI forms (at least with human reference).

However, a NAdj can also occur in special predicative forms, while a NC cannot. (Note that we are talking about forms, not functions--a NC can occasionally show up as a nonverbal predicate, but does not have a special predicative form in this case.) The predicative form requires, minimally, that the usual NC infl be replaced by an intrasentential pronoun prefix of the sort used with verbs, as in /galyurungu/ /it (e.g., pond) in/was big' with ANA class prefix. One cannot say */wu=wuruyu/ 'It was/was a pond'. In the predicative form, one has the option (and in some contexts the obligation) to fully verbalise the NAdj by adding inchoative suffix /ma-/ (or functional equivalent) plus a verbal inflectional ending, as in /galyurungu/wa-ma-/ /is (ANA) became/has become big'. Again, one cannot say */wu=wuruyu/wa-ma-/ /it (ANA) became/has become a billabong'. A NAdj usually also has a corresponding transitive (Factitive) derivation with suffix /a-wa-/; requiring transitive pronoun prefix: /galyurungu/wa-a-/ /he made it (ANA) big, he enlarged it'. See §6.8-9.

In terms of how they map onto the lexicon, NAdj and No in Nunggubuyu are somewhat distinct from English adjectives and nouns. Specifically, forms for humans (excluding kin terms and personal names) are normally NAdj in Nunggubuyu; thus /walYi/ /man/ is merely a form of the NAdj /walYi/ 'male' which can also be applied to nonhumans, and which can occur in predicative form as in */galyurungu/ 'I am male, I am a man'. Actually, nouns of primarily human reference tend to be used mainly in nonpredicative forms, so the difference between them and common nouns is not very salient in texts, but it is there in principle.

Common nouns (No) are therefore mainly terms designating flora and fauna apposite to the environments, and adjectival. (Personal names, see §4.4, and kin terms, next chapter, are arguably subtypes of common noun, however, and in §4.3 we consider adverbial nouns which also share some features with No.)

In examining texts, it becomes apparent that a single English sentence or clause may correspond to more than one Nunggubuyu clause. We will see in Chapter 7 that an English demonstrative pronoun or adverb may correspond to a predicative demonstrative in Nunggubuyu, so that 'This man hit me' becomes '(He is) this, he hit me' (though there need be no pause between the two predications). This is also true of many NAdj. A fair number of these can function either as adjectives or as adverbs, and where syntactically appropriate (i.e., in positive rather than negative senses) we often find them in predicative NAdj forms:

\[
\begin{align*}
(4.1) & \text{ni=nya-ri:} & \text{ni=nya-ngulungulug} & \text{He goes fast} \\
(4.11) & \text{ni=nya-ngulungulug} & \text{He went fast} \\
(4.111) & \text{ani=nya-ri:} & \text{ani=nya-ngulungulug} & \text{He will go fast} \\
\end{align*}
\]

Note that in this set of exx., the intrasentential pronoun prefixes (which distinguish the present positive from the future positive continuous, and where syntactically appropriate) are the same on both verb and NAdj. However, the NAdj can also be without prefixes, or can take an ANA class prefix (this class being characteristic of adverbial nouns, see below). In positive contexts the unprefixed form is common:

\[
\begin{align*}
(4.1v) & \text{ni=nya-ri:} & \text{ngulungulug} & \text{He goes fast} \\
\end{align*}
\]

On the other hand, in negative contexts the only form which can be used is the form with /ana-/ prefix (in adverbial sense):

\[
\begin{align*}
(4.v) & \text{wa-ri:} & \text{ani=ngulungulug} & \text{not he (not) go} \\
\text{ana-ngulungulug} & \text{ANA-fast} \\
\text{He is not going fast} \\
\end{align*}
\]

Some nouns which behave more or less like /ngulungulug/ /fast' in this fashion are /balah-bala/ /fast', /malamburg/ /properly', /chaga/ /alone', /w2iriwi/ /alone', /dhan5ga/ /stationary', /galyurungu/ /slow, and /w2iriwi/ /slow'. See §15.6, end.

There are some NAdj which occur almost always in predicative form (with intrasentential pronoun prefixes). These include /marbuy/ /know(ing)', /malajii/ /not know(ing) ', ignorant', /amabdi/ /unaware', and /w2iriwi/ /left behind, left alone'. Thus /n2irri/ /I know', /niruyu/ /He is left alone'. Note that these usually translate into English with personal pronouns, particularly those based on the root /w2ula/ /two' (hence including /vulun/ /three' and /w2ulal-walul/ /four').
are also very often in predicative form when they are simple adjectival modifiers in English:

\[
(4,\mathrm{v1}) \quad \text{wini}=\text{wula-wa}: \quad \text{ma-walya-wa}: \quad \text{'two men'}
\]

They(MDu) are two men(Ju) NMET 14.12.4

Here one could also say /ma-wula-wa/ with NC_infl prefix (masculine /ma/-), and textual occurrences of this form can be cited, but it is usually more idiomatic to use the predicative form with intransitive pronominal prefix, here 3MDu a /wini-/. (In some combinations the /wi/ of the stem is dropped with resulting VV-Contraction P-40 in these numeral predicates; see rule P-2, part d, in Chapter 3.) For numerals in general see §14.25.

In dictionary entries for NAdj, each cited textual cross-reference includes the notation "pred" if the ex. in question is in predicative form (with intransitive pronominal prefix rather than NC_infl prefix or zero). Inchoative and Factitive derivatives are given separately at the end of the NAdj entry, if attested in the data.

4.3 Adverbial nouns.

The dictionary lists a fair number of stems with the label "NcAna(Adv)," which means a common noun of ANA noun class which can function as an adverb. Adverbs are thus not a special word class in this language, but are rather merely a subtype of common noun, taking regular NC_infl prefixes.

Some exx. of adverbial nouns, as we may call them (with abbreviation NAdv), are temporal adverbs /agaEay/ 'yesterday', /agaEay/ 'tomorrow', /yinab/ 'today', /yinab/ 'today, nowadays', /adhara/ (at) dusk, and /mimnu/ (at) night, and spatial adverbs /bandhu/ (in the) middle, /adhara/ behind, and /bli/ windward. There are also some others such as /angulu/ 'forcefully' and /balanu/ 'permanent(ly), stable'. As we have seen in the previous section, some stems are either NAdj or NAdv. In Chapter 7 we will discuss several types of demonstrative adverb which can also be regarded as NAdv.

The category of NAdv is essentially designed to capture the fact that nouns of this type tend to avoid inflectional affixes, though they are capable of taking them. Whereas ordinary NC (common nouns) take NC_infl prefixes quite often (omitting them mainly in contexts involving some degree of focus, see §4.8), NAdv usually avoid the prefix. Many NAdv also avoid case suffixes, even though they often correspond to prepositional phrases in English; one says /mimnu/ 'night' instead of a case form ('at night', 'in the night'), at least in general. That they are common nouns of ANA class, however, is shown by the fact that they must take the NC_infl prefix (continuous series) in negative contexts (§4.5).

\[
(4,\mathrm{vii}) \quad \text{n-a}=\text{a}=\text{r}: \quad \text{agaEay} \quad \text{I will go tomorrow}
\]

\[
(4,\mathrm{viii}) \quad \text{yagi} \quad \text{na-samu}-\text{g} \quad \text{ana-} \quad \text{agaEay} \quad \text{not} \quad \text{I will (not) go} \quad \text{ANA-tomorrow}
\quad \text{'I will not go tomorrow'}
\]

\section*{4.4 Personal names, including necronyms.}

Traditional personal names of Aboriginals were totemic names, usually belonging to clan ancestors and also functioning as totemic epithets in clan camp songs (/wurubal/) or ritual songs. Some personal names in current use also happen to be ordinary terms for a totemic sp., but most personal names are totemic epithets otherwise used only in clan songs or rituals. Some dogs belonging to Aboriginals also have names. For some background information see texts 80 through 89 in NMET.

\section*{4.4 Personal names, including necronyms.}

The primary difference between personal names and other human nouns (most of which are NAdj, see §4.2, or kin terms, Chapter 5) is that personal names normally avoid number-markers. However, the names are individualised it is not surprising that Du and PI elements are not found (for exceptions involving necronyms see below). However, personal names also tend very strongly to avoid HumSg suffixes (§4.8), which is regularly used with human NAdj. Thus contrast /na-wali-nu/ 'man' with /na-maadi/ /Maadi/ (man's n.).

There are only a tiny number of cases in a large textual corpus in which HumSg suffixes occur with personal names. One myth protagonist is commonly referred to as /na-\text{wali}/ 'I will go tomorrow' (NMET 15.4.5, 16.1.2, 16.23.4), where HumSg suffix /-\text{nu}/ is a frozen part of the name, which is based on the common fauna term /\text{wara}/-walji/ 'frilled lizard'. In this instance the HumSg suffix may be used to make it clear that the protagonist is not overtly identified with the species in question. Another myth protagonist is usually called /na-\text{wuriyambi}/ (or /\text{wuriyambi}/), but...
One point in the myth it is necessary to distinguish this individual from a person, which is also called 'wuruyambi', and in this context HumSg /-yun g/ is added to the personal name to ensure clarity, hence /na-wuruyambi-yun g/ (NMET 15.6.4). There is another text in which the narrator gave the name of a myth protagonist incorrectly, then required the error and gave the correct name, which he reinforced by adding HumSg /-yun g/, hence /na-jajabu£-yun g/ (NMET 29.12.6). Ordinarily this name does not take the HumSg suffix (see remainder of NMET text 29).

Necronyms are expressions used to refer to deceased persons in contexts where direct use of the deceased's personal name would be socially indecent or improper. Some expressions used in this way are ordinary forms which can also be used to refer to living persons, such as a kin term ('my father', for ex.). However, two types of specifically necronymic expression have turned up.

The first is to take the name of an immediate (focal) kinsman of the deceased, and add Dual suffix /-wa/- to this. Thus /na-wurajuu-wa/ (NMET 161.6.1), lit. 'two Wurajuu-a' but in context designating the deceased father of Wurajuu.

The other is to designate the deceased by referring to the location of his or her death. This is becoming less useful now that the Nunggubuyu people are relatively settled at Numbulwar, so that many persons deceased in the last thirty years cannot be uniquely specified by such an expression, but the device is still used in cases where it is clear. Nowadays the usual expression involves Creole la 'at', to', pronounced /lhj/ in Nunggubuyu. We get a kind of nominal compound of the form /la/- plus place n., the whole functioning as a personal name so that /ma/- or /g'/arai/- can precede. Thus /na-lha-nululji/ 'he who died at Nululji' (NMET 161.6.3; for another ex. see 161.17.2). I believe that the NCinfl prefix /ma/- or /g'/arai/- must be used with such forms, which would otherwise be understood as (creolised) case forms of the place n.

One final comment about personal names. A suffix /-isi/ with PI meaning is used almost exclusively with a) personal names; and b) kin terms (with 1st person propositus). With a personal name it means 'X and his bunch', 'X and his close relatives', or the like. The NCinfl prefix is that required by the (singular) name, rather than that of the larger group /na-jubilanyg'ga-wan/- 'his bunch and his' (NMET 163.11.4). Other exx. are NMET 82.1.5; 139.14.2 (with following case suffix); in NMET 161.12.2 we have a tautogetic being (Catfish), perhaps really here also a personal name, with /-isi/ as well. See §4.14, below.

4.5 Place names (toponyms).

A representative list of the very large number of local Nunggubuyu toponyms is given in Appendix 6 of the dictionary. A few have an obvious literal meaning, and one or two of them are verbal in form, /'baagleharin/' from /ngi-baagleharin/- 'he stabbed herself in the eye' (referring to a mythical event). Most, however, are synchronically unanalysable.

The unanalysable terms, and even most of the analysable or partly analysable terms, are syntactically very similar to adverbial nouns (NAdv). That is, they are in principle nouns of the ANA class (specifically, the ANA_m subclass), but frequently omit the NCinfl prefix. They are not quite the same as the NAdv terms, since the place names are regularly found in a variety of contexts (intransitive, allitative, etc.), and since they can occur readily as direct objects and occasionally even as (intransitive or transitive) subjects; it is very difficult to get a NAdv in these functions.

NMET contains hundreds of occurrences of place names, so it is possible to study the syntax of these words carefully. In most of these occurrences, the place name (naturally) is semantically locative, allitative ('to'), or ablative ('from').

In locative sense, the overwhelming majority of place names show no case suffix. (By contrast, ordinary nouns would have Locative /-ruj/ or, in some contexts, a Periphrastic /-ruj/ with a place name (NMET 35.3.4, 94.3, 94.4.5), when we factor out a number of place names containing /-ruj/ as a fused part of the stem (kept even when a distinct case suffix is added). There are also only a small number of cases of Periphrastic /-ra/- or Retrospective Periphrastic /-ra/- (NMET 19.8.5, 113.2.4, 125.13.2, 166.7.3, possibly 35.7.3).

Since no case suffix is present ordinarily when location (rather than motion) is involved, the only question is what NC. prefix is used. As we will see below (§4.7-8), ANA class nouns have punctual /a/- and continuous /ana/- as NCinfl prefixes, with omission of the prefix the third option. Eliminating negative contexts (which require continuous /ana/-), we find that omission is the only common pattern; a few exx. are NMET 26.1.1, 3.11.2, 5.14.2, 7.2.3, 7.5.4, 8.4.3, and 18.6.6. It is not uncommon to find a prefixless place n. in apposition to the noun /ana-haar/- 'place, country' with the latter showing the NCinfl prefix, as in /balamu ana-haar/- 'the place Balamu' (NMET 28.4.7).

However, a sizable number of cases involving continuous /ana/- with place n. are also recorded: NMET 1.6.3, 7.4.5, 9.2.3, 9.9.3, 13.7.4, 14.1.1, 17.11.2, etc. (about fifty such cases in NMET, not counting some repeats and counting some strings as one item). Now and then the place n. is repeated once or twice, with the repeat showing /ana/- after it was omitted the first time. On the other hand, forms with punctual /a/- in basically locative contexts (with zero case suffix) are not common. A fairly complete list from NMET is 7.1.1, 9.2.2, 9.12.1, 9.13.3, 12.9.3, 13.4.2, 14.2.3, 23.3.5, 35.3.2, 35.8.2, 35.10.2, 35.13.4, 161.33.8-9, 167.2.4, 16.5.2, and 167.12.3. Punctual /a/- normally implies that a spatial case category is present although no overt case suffix is observed. The rarity of /a/- with non-case-marked place names shows that the typical locative sense of these nouns does not induce the punctual form of the NCinfl prefix, except rarely. In some of the above exx., the place n. is adjacent to a preterite or intransitive or other appositive form marked for case (and usually with punctual NCinfl prefix), so a minor tendency toward having the same affix frame on appositives may be at work.
If we look at forms of the NCinf1 prefix when the place n. is followed by a nonzero case marker, some unusual figures result. The only two case categories for which a statistically satisfactory number of instances occur are Ablative and Allative-Dative (the latter in allative sense here). A survey of forms in NCinf1 (with some omission of repeated words, and of some forms of place names beginning with /a/ where the difference between punctual NCinf1 prefix /a-/ and lack of prefix might be hard to hear) shows the following results:

<table>
<thead>
<tr>
<th>Case Category</th>
<th>Observations</th>
<th>Percent with /ana-/</th>
<th>Percent with /a-/</th>
<th>Percent without /a-/</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allative-Dative</td>
<td>17</td>
<td>48%</td>
<td>0%</td>
<td>52%</td>
<td>100</td>
</tr>
<tr>
<td>Ablative</td>
<td>83</td>
<td>44%</td>
<td>48%</td>
<td>0%</td>
<td>100</td>
</tr>
</tbody>
</table>

These figures (based on 41 Allative-Dative and 82 Ablative instances) show two things. First, in contrast to ordinary nouns (Nc and NAdj), place names make only occasional use of the punctual series even in positive contexts (we have omitted the small number of negative exx.) in these case categories. As we will see, for ordinary nouns the punctual prefix series is normal with such overt case markers. Second, the Ablative differs quite significantly from the Allative-Dative in the percentage of forms with continuous ANA class prefix /ana-/; the Ablative shows much more frequent use than the Allative.

The second observation, however, turns out under analysis to be predictable from discourse factors rather than being an independent morphological oddity. As we will see below (§4.8), continuous NCinf1 forms have a tendency to be used in highly definite or "given" nouns, while absence of the NCinf1 prefix is common in highly foregrounded or focused nouns. The statistics shown above, from narrative texts in NMET, are distorted by the fact that on many occasions a particular place n. is first mentioned in reporting that a protagonist arrives at the location (with Allative-Dative case), and is then mentioned a second time when the protagonist goes away from it (Ablative). Since the place n. has become contextually definite by the time of the Ablative occurrence, it is appropriate that the continuous form of the NCinf1 prefix be relatively common with the Ablative.

As noted in §4.1, we recognise as inflectional the NCinf1 prefixes and the case suffixes (the latter, in turn, can be followed by postinflectional suffixes which we here call postpositions). Morphological structures which occur between the NCinf1 prefix and the case suffix are considered derivational, though the distinction between inflectional and derivational (as in many languages) is fuzzy at times. We treat the primary number-markers (aside from NCinf1 prefixes, which include some number-marking) in the derivational domain, since the formal devices used tend to be lexically idiosyncratic (e.g., some nouns have a reduplicative PI, others have prefix /ni-/ and others have some other less common number-marker). By contrast, the forms of NCinf1 prefixes and case suffixes are not part of lexically infixed paradigms. A few other derivational processes may be briefly mentioned here; for a fuller treatment see Chapter 14.

There are some compounds with a nuclear noun root followed by an incorporated NAdj, as with /mulugalngal/ "big group" from /muluga/ 'group' and NAdj /ngal-/ "big". There are a few other minor compounding patterns. A Gentilic derivation, used especially in clan names, involves derivational prefix /gul-/ ("clan"). There are a few instances of a noun or NAdj being derived from or at least derivationally related to a verb; the most common type involves suffix /-j/, often with obligatory reduplication: /kungal-ngalngal/ 'white, bright'.

Some nouns can occur commonly as compound initials with a following verb (the whole word functioning as a verb with incorporated noun). Some nouns retain their usual phonological form in this function; others show phonological irregularities, others are replaced by a suppletive compound initial. See §4.19. In such noun-verb compounds only the root of the noun is present (i.e., there are no nominal affixes brought in with it).

4.7 NC (noun-class) prefixes: forms.

The usual NC prefixes used with nouns are labeled NCinf1 (inflectional). Two distinct series, called continuous and punctual, must be recognised for the nonhuman categories; there are also some lower-level phonological variations. There is also a set of derivational NC prefixes, labeled NCder, which are used with roots to create derived nouns with the NC indicated.
§4.7  160  Table 4-1

We may briefly mention some phonological rules which can produce surface forms slightly different from the ones shown in Table 4-1. First, consider the NC_infl prefixes, all of which end in a vowel. If the following morpheme begins with a consonant, the NC_infl prefixes of shape //Cara// optionally undergo V-Truncation P-36, becoming //Car//. Thus /n³ara-waryin/ or /n³ara-waryin/ 'emu', /vara-gaqil/ or /wa-gaqil/ 'wild onion'. Note that this partially blurs the distinction between punctual and continuous forms of the NC_infl prefix for the WARA class. The table shows /war-/ as the continuous form, and /wa/- as the punctual one (except that /wai/- is replaced by /war-/ before a vowel). Because of P-36, continuous /war-/- optionally becomes /wa/- before a consonant, so for consonant-initial noun stems the distinction between continuous and punctual WARA forms is optionally made on the surface.

When the NC_infl prefix is followed by a morpheme beginning in a vowel, either V-Contraction P-49 or V-Truncation P-46 applies, depending on the morpheme-initial vowel. If this vowel is a high one, //A/ or //P/, the prefix-final vowel is dropped by P-46 if the prefix has two syllables (//n³ara-//, //vara-//, //ana-//, //mana-//, //na-//). Thus //ana-µ-dhanun/ //→ an-µ-dhanun/ 'wind', breezes (the //µ// here happens to be the NC_infl prefix). If the morpheme-initial vowel is /// and the prefix ends in //A/ (as most prefixes here do), we get contraction by P-49, producing a long vowel, hence /ana-/- to //ana-aban//. This does not apply in the case of //y/- prefix (punctual series for NA or WARA); instead, epenthetic //w// is inserted by w-Insertion P-7. Thus //y/-wagarag// //→ y/-wagarag// 'goanna sp.'.

An idiosyncratic phonological rule applying only to forms of the noun //gu lugar// 'water' shifts vowel-length from the noun to the prefix: //ana-µ-gu//, //Πa-µ-gu//. See Length-Shift P-43.

There are other idiosyncratic changes affecting NC_infl prefixes, but they apply in morphological contexts not dealt with in this chapter. For reduction of //vara// to //vA//, //vA// in some kin terms see §5.1 and rule P-36. For conversion of the human NC_infl and the nonhuman continuous NC_infl prefixes to uniform //CV//-shape in one type of demonstrative construction, see §7.3 and rule P-36.

The NC_der prefixes in Table 4-1 are shown as having a final segment represented as //g//; that is, as a stop archiphoneme (§2.4). This is necessary because these prefixes have a hardening effect on the following root. For example, from //lhan-gu// 'meat, flesh', which can occur by itself as an ordinary noun, we can optionally produce derivatives with NC_der prefixes. These show up as //n₁-dhan-gu//, //n₁-wa-dhan-gu//, //u-dhan-gu//, and //µa-dhan-gu//, where //µ// /→ dh// by Hardening P-18. There are many other exx., involving //γ// /→ µ//, //w// /→ µ//, //w// /→ B//, and //γ// /→ B// after NC_infl prefixes. In the general context of Nunggubuyu phonology (see discussion of P-18 in §3.19), this requires us to posit a stop as prefix-final segment. Before //l// and nasals the //g// disappears without leaving a trace (by Stop-Deletion P-29).

In the Dictionary and occasionally here, we use representations like //µa-der-dhan-gu// as abbreviations for the complete series of

<table>
<thead>
<tr>
<th>Table 4-1</th>
<th>Forms of Noun-Class Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) NC_infl</td>
<td></td>
</tr>
<tr>
<td>human:</td>
<td></td>
</tr>
<tr>
<td>na-M</td>
<td>(MSg and MDu)</td>
</tr>
<tr>
<td>n³ara-F</td>
<td>(FSg and FDu)</td>
</tr>
<tr>
<td>wara-Pl</td>
<td>(three or more)</td>
</tr>
<tr>
<td>nonhuman:</td>
<td></td>
</tr>
<tr>
<td>na-y</td>
<td>NA class</td>
</tr>
<tr>
<td>n³ara-y</td>
<td>WARA class</td>
</tr>
<tr>
<td>wara-</td>
<td>(wara- before vowel)</td>
</tr>
<tr>
<td>ana-</td>
<td>ANA class</td>
</tr>
<tr>
<td>mana-</td>
<td>MANA class</td>
</tr>
</tbody>
</table>

b) NC_der

<table>
<thead>
<tr>
<th>NC_der</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>n₁G</td>
<td></td>
</tr>
<tr>
<td>n³G</td>
<td>F/N³GARA</td>
</tr>
<tr>
<td>uG</td>
<td>Pl/WARA/ANA (with Rdg for Pl)</td>
</tr>
<tr>
<td>maG</td>
<td>MANA</td>
</tr>
</tbody>
</table>

The NC_infl prefixes, whose functions are described in §4.9, produce ordinary common nouns which are preceded by NC_infl prefixes in the usual manner. While the NC_der prefixes by themselves show several syncretisms (M and NA the same, Pl the same as WARA and ANA), these are often differentiated in complete word forms when the NC_infl prefixes are added. For example, //G/- may be preceded by an unambiguously ANA class prefix //ana-//, giving //an-G//--, or in another case may be preceded by WARA or Pl prefix //war-//--, producing surface //war-G//.

Although these NC prefixes show some number-marking, in full nominal words it is also necessary to consider number-marking affixes (suppletion or reduplication where appropriate); see §4.14 to §4.12. In particular, Dual is marked by a suffix //-a//- for humans and nonhumans alike, while humans also have special Sg and Pl markers. Since NC_infl prefixes are frequently omitted (§4.8), these other number-markers are more reliable than the partial number-marking in the NC prefixes.

Observe that the three human NC_infl prefixes (//na-//, //n³ara-//, //war-//--) are formally identical to the first three nonhuman prefixes, but only in the continuous series. The same syncretisms occur in the corresponding NC_der prefixes. In the complete word forms these human/nonhuman syncretisms are usually differentiated by the co-occurrence of specifically human number-markers.
NCer derivatives, such as the series of forms just presented for 'smell, flesh'.

When a NCer prefix precedes a stem beginning in an underlying stop, the meaningless epenthetic morpheme /-n-u-/ is put between them by rule P-1. Thus from /gulum/ 'belly' we get a series /n-/-gulmuma/, /n-ar/-n-gulmum/, /u/-n-gulmum/, and /m/-n-gulmum/, which we can abbreviate as /NCn-gulmum/.

The /G/ in the NCer is lost by Stop-Deletion P-29.

There is a small number of idiosyncratic phonological phenomena affecting certain noun roots in NCer form, though the patterns just described apply to the large majority of forms (several dozen roots involved). First, there is one root whose NCer forms are incompatible with the underlying /G/ posited for the prefixes. This is /ma/-ruga/ 'fish net' (MANA class), a stable noun form that does not have other NCer forms (*/n-rruga/, etc.), but which is analyzable as bisemophoric /ma/-ruga/ since we get /-ruga-/ as compound initial (most noun roots which can occur with NCer prefixes can also be used as compound initials). If the form were */-ma/-ruga/ we would have gotten */ma/-ruga/ with Hardening P-18.

Second, there are two roots which take the /n/-u- auxiliary even though they do not begin with stops. From /nda/-yuda/ 'bird; game animal' there is a derivative type /NCer-nu-/yuda/ 'chick (young bird); and (of object)'; here there is a significant and unpredictable semantic (as well as formal) shift which makes the synchronic relationships tenuous. The other case is /maaru/ 'hand' becoming /NCer-nu-maaru/ 'hand- or finger-like appendage' (claw; root tuber), where the semantic derivation is quite normal.

It is a small number of cases, NC-Epenthesis F-17, to apply although the noun root does begin with a stop (as independent forms). Thus /dhana/-ara/ 'flower', derivative /NCer-dhana/-ara/ instead of */NCer-ru-dhana/-ara/. We could specify that P-1 just happens not to apply here, but in the context of Nunggubuyu phonology there is another, more reasonable solution: to assume that /dhana/-ara/ undergoes (along with a few other specific lexical items) Lenition P-16 when preceded by a derivational (not inflectional) element. Such a rule is clearly justified in the case of some verbs, such as /whiha/-a/ /whiha/-u/ 'to block off', in this postderivational environment. The other possible type /dhana/-ara/ are /dhanawar/ 'door' (where both regular /NCer-/-dhanawar/ and irregular /NCer-dhanawar/ occur as derivatives, and /dhangarljaba/ 'bamboo; deriv. /NCer-dhangarljaba/ 'tracks').

There are some cases where the segmentability of a form involving NCer prefix is unclear or ambivalent. The transparent cases are those where the root occurs independently as well as in derived form, and/or where the root occurs with several distinct NCer prefixes for distinct noun classes. A case like that of /ma/-ruga/ 'fish net' (see above) is more difficult because the underlying root does not occur as a noun and because the MANA class form is always used (we segment the form only because /-ruga-/ occurs as a related compound initial). Another problem ex. is /manu/-i/ 'liquid fat' (MANA class). Since this is the normal form, segmentability of the first syllable as /ma-/- is not obvious.

162 §4.7

In the infrequent cases where a derivative is used to put the form in another noun class, we can get either /NCer-/-manu/-i/ (implying that */-manu/-i/ is an unsegmentable root) or /NCer-/-manu-guli/ (which implies that manu/-i/ as noun form is just the MANA form of this /NCer-/-manu/). Some other cases of ambivalent or at least fairly opaque segmentability (see dictionary entries for details) are /ma-guli/ 'pandanus' and /ma-guli/- 'skin'.

Related to this, there are a few instances where a form used as root with NCer prefixes already contains what is (historically) an old NCer prefix. For example, the noun /dhari/- 'bark of stringybark tree' is associated with a derived type /NCer-guli/ 'bark; inner bark of eucalyptus' which presupposes a root /-guli/ (we cannot tell whether the surface /g/ is from /G/ by Hardening F-18 or by Velar-Insertion P-6). It looks as though the derived form of the root was once *nu/-guli or the like, with a prefix related with the present-day /uG/- NCer prefix. Other roots used in NCer derivatives which are represented in the dictionary as beginning in /wul,.../ can be suspected as having similar origins. These are also some noun doublets (/*murum/- 'shell' and /murum/- 'house, shell'; /wanga/- 'branch' and /wulbana/- 'branch' and /wulbana/- 'branch'; possibly /wuliyar/- 'leaf' and compound initial /-yir/- 'leaves') suggesting similar reinterpretations and fusions; several of these roots are common in NCer forms.

4.8 Uses of NCer Infl prefixes.

One aspect of the function of NCer Infl prefixes is, of course, the oppositional value they have in the NC category versus, another. However, in the present section we are concerned rather with the syntactic and discourse significance of presence vs. absence of NCer Infl prefixes for a given noun, and (for nonhuman classes) the choice between continuous and punctual series.

It is necessary to begin with a distinction between negative and other (ordinary) contexts. This term has a specific technical sense in this grammar. With respect to sentential constituents such as nouns or NPs, the constituent is in a negative context if it is directly in the scope of a negative element, usually */-gi/- or */yagi/- 'not' (used in different tense-aspect categories). Negative contexts also include some other environments, such as constituents within the scope of a conditional protasis ('if'-clause). For a discussion of the large set of context for a 'not' usage see §15.6. A noun within a negative context in this sense obligatorily takes NCer Infl prefix, and for nonhumans this must be the continuous series. This rule overrides others to be mentioned below, and thus applies to nouns in any case category, and to all types of nouns including place names.

(4.11) wa:=-g1 ana-wul-ara 'There is/was no fighting'
not exist ANA-fight NNET 17.2.7

(4.12) wa:=-g1 ana=-aban-guy wulawurdu-xa not ANA=earth-to they (not) buried them
'They did not bury them in the ground' NNET 51.1.3

163
Having factored out this particular case (negative contexts), it remains to consider the choice between omission of prefix (zero), continuous prefix (indexed with subscript c' as in ANAc) and punctual prefix (subscript p' as in ANAc), recalling that for human categories the latter two are indistinguishable.

These distinctions are tricky, and cannot be correlated in any simple fashion with presence/absence of other particular morphological features. Basically, there are two principal factors affecting choices: a) an imperfect but strong correlation with any simple function of context--for (continuous) prefix in such contexts see, for example, 51.1.3, 65.13.3, 67.3.2, 90.2.7, 106.4.3, 120.1.6.

Consider now Ablative /-w1ala/ 'from'. In the normal ablative meaning, with nonhuman nouns of the sort delimited above I have noted 9 cases of continuous prefix in NMET, 23 of punctual prefix, and 4 with prefix omitted. The percentages are consistent with those for /-w1uy/. Some exx. of the dominant punctual type are 13.41.2, 17.7.5, and 29.6.1. The continuous exx. are 10.18.2, 13.29.3, 21.1.5, 59.6.2, 73.5.1, 84.1.4, 113.4.4, 115.1.5, 115.1.6, 115.6.1. The infrequent Ablative forms without prefix are 9.6.1, 17.8.5 (adverb), 115.6.2 (with numeral), and 165.4.1 (special reduplicated noun functioning as adverb).

There are also some other functions of Ablative /-w1ala/ which may have different prefixional implications. The Ablative is used with names of languages, in contexts like 'He is speaking in (language) X'.' We find continuous prefix /-ana-/ in 9.1.3 and 169.1.5; punctual /-a/- is not recorded; omission of prefix is found in 7.21.6, 64.9.8, and 161.35.1, but in these cases the noun is the loanword English itself and this may have a built-in tendency to use NClinf prefixes less than native nouns. Overall, there are not enough exx. for statistical purposes, but it may be that the punctual series is less common in this situation than in the usual ablative sense.

The other special Ablative function is as a highly-marked subject case marker, usually contrasted with an Ablative-Dative NP in the same clause (see §4.22). The available exx. suggest a preference for continuous prefix or for omission of prefix, in contrast to the preference for punctual prefix in ablative sense. Note continuous prefix in 6.2.4, 36.3.4, and also 42.4.7; absolute absence of prefix in 36.4.4, 45.1.4, 51.5.2 (twice), and 166.26.4 (three). In 36.4.4 the prefix /wa:-/ could be punctual or continuous prefix /ana-/ in 9.1.3 and 169.1.5; punctual /-a/- is not recorded; omission of prefix is found in 7.21.6, 64.9.8, and 161.35.1, but in these cases the noun is the loanword English itself and this may have a built-in tendency to use NClinf prefixes less than native nouns. Overall, there are not enough exx. for statistical purposes, but it may be that the punctual series is less common in this situation than in the usual ablative sense.

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Use of continuous prefix with Ablative in negative context is seen in 85.1.4/ and 79.1.5. Ablative with human NClinf prefix is found in 16.13.8, 47.3.1/2, 80.6.47, and 166.14.2.

We now consider Progressive /-w1ala/ and Retrospective Progressive /-w1ala/, pooling the two together. The nonhuman exx. which can be accurately coded show 27 instances with punctual prefix, 21 with continuous, and 2 without prefix (total 50). Some exx. of the punctual type are 13.1.1, 15.9.6, 37.4.4, and 45.6.5; exx. of the continuous type are 13.18.4, 13.7.4, 113.1.3, and 105.5.4 (twice). The exx. without prefix are 13.40.2 and 166.28.3.

Obligatory continuous prefix in negative contexts 121.3.7. As usual, in the forms with human noun we normally get the NClinf

---

**TABLE 4-2**

<table>
<thead>
<tr>
<th>NClinf Form</th>
<th>Case Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punctual</td>
<td>/-y1/ Similaritve ('like')</td>
</tr>
<tr>
<td></td>
<td>/-ru/ Locative</td>
</tr>
<tr>
<td></td>
<td>/-yun'/yuyn'/ Purposeive</td>
</tr>
<tr>
<td></td>
<td>/-wuy/ Ablative-Dative</td>
</tr>
<tr>
<td></td>
<td>/-wa/ Ablative</td>
</tr>
<tr>
<td></td>
<td>/-w1ala/ Ablative</td>
</tr>
<tr>
<td></td>
<td>/-w1aj/</td>
</tr>
<tr>
<td></td>
<td>/-w1aj/ Ablative</td>
</tr>
<tr>
<td></td>
<td>/-waj/ Progressive</td>
</tr>
<tr>
<td></td>
<td>/-yin'/un'E Relative (incl. genitive)</td>
</tr>
<tr>
<td>Zero or continuous</td>
<td>/-a/ Nominalist (subject/object)</td>
</tr>
<tr>
<td></td>
<td>/-mir/ Instrumental</td>
</tr>
<tr>
<td></td>
<td>/-wuy1/ 'still, only' (postposition)</td>
</tr>
</tbody>
</table>

§4.8

| 164 | Table 4-2; (4.xi) | 165 | 57.2.1, 58.3.1, 59.10.2, 95.8.4, 98.7.2, 98.7.3, 108.4.5, 108.7.3, 113.8.3, 113.8.5, 113.8.6, 115.6.5, 125.2.3 (twice), 123.8.7, 182.1.1 (three), 142.3.3/5, 142.6.7, 145.3.6, 143.6.5. The syntactically dative exx. of /-w1uy/ are harder to treat since there are far fewer of them, and many are human (so that the punctual/continuous prefix opposition is merged). However, as with the allative instances, the dative ones with nonhuman noun do seem to prefer punctual prefix: 6.2.3, 7.12.3, 37.4.4, and perhaps the NARA class form 36.5.5. All of these statistics exclude negative contexts--for (continuous) prefix in such contexts see, for example, 51.1.3, 65.13.3, 67.3.2, 90.2.7, 106.4.3, 120.1.6.

Consider now Ablative /-w1ala/ 'from'. In the normal ablative meaning, with nonhuman nouns of the sort delimited above I have noted 9 cases of continuous prefix in NMET, 23 of punctual prefix, and 4 with prefix omitted. The percentages are consistent with those for /-w1uy/. Some exx. of the dominant punctual type are 13.41.2, 17.7.5, and 29.6.1. The continuous exx. are 10.18.2, 13.29.3, 21.1.5, 59.6.2, 73.5.1, 84.1.4, 113.4.4, 115.1.5, 115.1.6, 115.6.1. The infrequent Ablative forms without prefix are 9.6.1, 17.8.5 (adverb), 115.6.2 (with numeral), and 165.4.1 (special reduplicated noun functioning as adverb).

There are also some other functions of Ablative /-w1ala/ which may have different prefixional implications. The Ablative is used with names of languages, in contexts like 'He is speaking in (language) X'. We find continuous prefix /-ana-/ in 9.1.3 and 169.1.5; punctual /-a/- is not recorded; omission of prefix is found in 7.21.6, 64.9.8, and 161.35.1, but in these cases the noun is the loanword English itself and this may have a built-in tendency to use NClinf prefixes less than native nouns. Overall, there are not enough exx. for statistical purposes, but it may be that the punctual series is less common in this situation than in the usual ablative sense.

The other special Ablative function is as a highly-marked subject case marker, usually contrasted with an Ablative-Dative NP in the same clause (see §4.22). The available exx. suggest a preference for continuous prefix or for omission of prefix, in contrast to the preference for punctual prefix in ablative sense. Note continuous prefix in 6.2.4, 36.3.4, and also 42.4.7; absence of prefix in 36.4.4, 45.1.4, 51.5.2 (twice), and 166.26.4 (three). In 36.4.4 the prefix /wa:-/ could be punctual or continuous prefix /ana-/ instead of optional RV-Truncation P-36.

Use of continuous prefix with Ablative in negative context is seen in 85.1.4/ and 79.1.5. Ablative with human NClinf prefix is found in 16.13.8, 47.3.1/2, 80.6.47, and 166.14.2.
prefix 41.4.3, 42.1.2, 47.7.5 (several), 47.22.4, etc. There are, however, two attestations of human Ablative form without prefix:

47.12.4, 113.2.5.

In the exx. in NMET of Locative /-ruj/, with nonhuman noun in nonnegative contexts I count 47 with punctual prefix, 13 with continuous prefix, and 2 without prefix. Exx. of the punctual type are 21.1.3, 3.4.5, 5.4.3, and 6.3.3; exx. of the continuous (actually a fairly complete list) are 10.9.5 (adverb), 21.1.3 (adverb), 27.3.5, 47.15.2, 57.2.5, 57.4.1, 63.1.3, 99.4.1, 108.18.3 (adverb), 113.2.7, 115.2.3, 113.3.4. No I cannot find exx. of negative contexts in the texts, but the requirement of continuous prefix in this environment is also true of Locative /-ruj/. Human exx. with NCinfl prefix: 55.8.3, 78.2.6.

Similative /-yi/ 'like, similar to', excluding negative contexts and human forms, is found in NMET 26 times with punctual prefix, 5 times with continuous, and 0 times without prefix. Some punctual exx. are 10.10.7, 13.8.2, and 53.1.2. The continuous exx. are 45.7.3/4, 97.6.3, 113.2.2, 139.8.1, 140.2.5. I count a majority of 97 with continuous prefix, 58 with punctual prefix, and 43.10.5/6. Absence of NCinfl prefix is not shown.

Table 4-2

Purposive /-yungguyun g / is added to a noun which already has another, non-zero case suffix (with language name), 166.1.4. Similative ('like') seems to be very common in the texts in NMET.

The remaining case form is the zero Nominative, used for subject and object. The vast majority of subject and object nouns have punctual marking, though a small number of subjects take Ablative /-miri/ and occasionally a direct object takes Allative-Dative /-yu/.

I do not have complete statistics on prefix type with this Nominative. However, it appears that (excluding negative contexts), both the unprefixed form and that with continuous prefix are very common. There are a fair number of textual attestations of punctual prefixes, but many of these seem to have specific motivations.

The basic problem in analysing the Nominative is that we often find nouns without case suffix functioning not as a subject or direct object, rather as a simplified version of a distinct case form (Locative, Instrumental, or whatever). Sometimes this is because the noun is part of a larger NP in which the case suffix is attached to another component (such as a personal or demonstrative pronoun, or a modifying NAdj) and the speaker does not bother to repeat the case marker. However, even without co-occurring with case-marked modifiers, nouns sometimes omit a case-marking suffix when it is assumed that addressees will guess the case function from the context. For more details see §4.19.

In general, we observe that when a non-zero case suffix is dropped in this fashion, the form of the NCinfl prefix is nevertheless usually that which we would get were the case suffix present. That is, with a spatial case category like Locative, Ablative, Allative-Dative, or Pergressive, the simplified form still usually has punctual prefix (in contrast to those case suffixes for subject or object); the simplified form of the Instrumental is often unprefixed (though in this case continuous prefix forms are much more common than they are with the regular case marked form).

The distribution of the apparent Nominative forms with punctual prefix is called for, since this is a somewhat abnormal combination. Although a precise classification of the "real" case category is sometimes tricky, I would venture an approximate classification as follows. Cases where Locative /-ruj/ seems to have been omitted are 1.1.6, 3.4.6, 9.1.1, 10.1.2, 12.3.1, 14.2.2, 14.19.2, 15.9.4, 28.11.3, 43.2.3, 95.2.5, 118.1.2, 115.5.5, 161.1.1, 161.3.7, 162.21.4 (twice), 167.12.3. A few of these might actually be Pergressive. I would specify Pergressive as probable in these additional cases: 7.16.5, 139.12.1, and 162.10.1. The Allative-Dative (usually allative in sense) appears to have been omitted in 2.2.6, 12.1.1, 13.21.1/2, 15.1.3/3, 28.6.2, 34.4.2, 41.5.5, 48.1.5 (dative), 95.8.5, 109.4.5, 114.3.5, 119.3.3, 131.2.3, 131.2.3, 145.6.3. Ablative instances with case suffix omitted are 161.35.3 (with language name), 166.1.4. Similative ('like') seems to be

§4.8 167

In general, we observe that with /-yungguyun g / the preponderance of punctual prefix forms with nonhuman noun is seen with other case categories is not confirmed; the continuous is in the majority, though there is still a respectable minority of instances with punctual prefix.

§4.8 167
the omitted suffix in 62.2.4/6, 71.11.4, 127.5.2. Omission of the Purposive suffix may have occurred in 161.3.1, 161.20.4, 170.3.6 (three exx. in the later section).

Forms of this type with omitted nonzero case suffix inducing punctual prefix form are also common with instances where the probable identity of the omitted suffix is Relative /-yinYun g/, despite the fact that (as noted above) in the fully affixed nouns with this suffix the continuous prefixes are a little more common than the punctual prefixes. Arguably, the tendency to use punctual prefixes when the case suffix is omitted may be to leave a hint that a nonzero case suffix has been dropped (so that the noun is not incorrectly taken for a true Nominative--that is, subject or object). Many texts about particular totemic beings, for example, begin with a sort of "title" consisting of the noun designating the animal with punctual /NICinfl/ or continuous /-yinYun g/ prefix, with Relative /-yinYun g/ present or absent. The exx. where /NICinfl/ prefix seems to have been induced by a deleted Relative case suffix are 7.1.2 (twice), 13.2.3, 19.1.2 (twice), 19.1.4, 21.1.2, 37.1.1, 63.1.3, 100.5.2, 103.1.2, 128.3.1, 131.3.1/2, 145.4.3, 167.1.1.

Even after sorting out all of these cases where the punctual prefix seems to reflect a real (nonzero) case suffix which has been omitted by a low-level simplification process, there still remains a residue of instances which seem to involve direct object nouns. The vast majority of such direct objects take continuous prefix, but with a few cases, this suffix has been found in the texts in NMET to warrant identifying this as a grammatical, though minor, pattern. Apparent exx. of direct object with punctual prefix are: 7.14.3, 15.3.2 (two exx.), 15.7.4, 36.3.1, 47.1.6, 48.2.1, 52.7.2, 92.4.3, 93.1.6, 92.2.1-3, 94.1.5, 101.3.3, 113.9.4, 153.4.2, 157.3.4, 157.7.6 (twice), 157.8.4/6 (three), 157.9.1, 166.1.3, 166.29.2. A reasonably broad range of verbs is involved and it does not appear that clear correlations between verb and prefix type of direct object can be sustained (verb glosses are not in the texts).

There are two possible instances involving transitive subjects with punctual prefix, which is most unusual. In 13.3.3 it would seem that the subordinated clause (with Locative /-ruj/) is involved in much the same way as case-marked subordinated clauses induce punctual prefixes with direct objects, as just mentioned. In 162.10.5-6 it appears that a Nominative noun with punctual prefix acts as transitive subject of the following verb, but since there is a clear pause between the two it is possible that the noun is, at the time of its being uttered, not yet clearly associated with a predicative to follow (it might be an instance of omission of Relative /-yinYun g/ or the like).

To summarise what we have said about the Nominative (and pseudo-Nominative, where a real case suffix has been omitted by a low-level simplification) for subject and direct object the usual pattern is either continuous prefix or omission of prefix, but there is a small minority of instances where direct object shows punctual prefix. We might speculate that there is a limited covert association of direct object with marked case forms such as Allative-Dative or Purposive, and that this association can induce parallels in prefix treatment now and then.

We have not yet considered the postposition /-w 2 ugij/ 'still; only'. In a few cases enough context is available to make us think this event the prefix form is determined by the case suffix rather than by /-w 2 ugij/ (it is thus usually in punctual form, since most nonzero case suffixes induce this prefix form). However, most of the time /-w 2 ugij/ is added to a simple (Nominative) noun. In this context we have 38 textual exx. in NMET, and all show omission of /NICinfl/ prefix. Exx. are 9.8.4, 9.11.4, 10.10.3, and 18.2.2.

We have now described the basic facts, mostly in relatively straightforward form, concerning correlations between case categories (overt and covert) and form of prefix (continuous, punctual, or omitted). We have cloe instances from one object-marker to another (e.g., 'send', 'put in', 'eat', 'wait for this', 'catch fish', 'look for', 'crave', 'cut', 'eat', 'wait for'), but with a semantic role function roughly describable as 'goal'.

There are some other instances which I prefer to keep apart from those discussed above. These are instances where a direct object or similar noun in one clause has punctual /NICinfl/ prefix, but where this is possibly attributable to a relative clause (clause) in another clause. In the cases I am thinking of, the subordinated clause has a case suffix (usually attached to the predicate), so in a sense the whole clause functions like a NP in the higher clause. Most often these are (functionally) relative clauses whose head noun is in a nonzero case category in the main clause, so that the relative clause agrees with it in case (see §16.4). There seems to be a tendency for nouns within the subordinated clause either to take a copy of this case-marker which originates with the head noun, or at least to take the punctual prefix form (which implies the presence of a nonzero case marker in most instances). Some exx. of direct objects in this construction type are 8.5.2, 96.2.1, 69.5.2, 161.33.7.

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Unprefixed noun forms are commonly found at the beginning of texts, or at the moment of initial introduction of a particular noun into the text. Often such unprefixed noun forms are repeated several times, clearly indicating that the semantic content of the noun is foregrounded. Some repetitions of this type are found in 3.2.3, 5.2.4, 5.18.4/5, 6.1.2/3, 12.2.3, 12.7.4, and 26.2.5 (a great many others could be cited). This list includes exx. of unprefixed Nominatives functioning as transitive and intransitive subject and as direct object. Unprefixed noun forms are common in nouns functioning as nonverbal predicates:

\[(4.11) n\'a:ll\'g ana-\'ni \text{ 'This is } n\'a:ll\'g \text{ 'bush'} \text{ sp. this (ANA) NMET 5.2.4}.
\]

Similarly, Interrogative WH pronouns in Nominative function usually lack the NCinfl prefix although they are morphologically capable of taking them; this remark applies to nonhuman /yan\'f/ 'what?' and to human /yan\'f-\'-\'\'-/ 'who(x)\?' and its number variants, in subject and direct object function. See Chapter 13.

When a demonstrative pronoun, especially one based on Anaphoric root /(-u)ba-/ occurs as a modifier in a NP with a noun, the noun regularly occurs in the form with (continuous) prefix /an-aba-\'ni ana-\'h\'a/- 'that(Anaph) country'. This comment applies to Nominative case. It does not apply to demonstratives like that in (4.11), where the demonstrative is not a modifier of the noun (i.e., not in the same NP) but is rather the subject of a nonverbal predicate.

Further evidence in favour of our position on the discourse status of the prefix opposition (continuous prefix vs. absence) can perhaps be gleaned from distributional facts about NCinfl prefixes presented above. First, recall that omission of prefix is characteristic when postposition /-wu:gl/- 'still, only' is added to an unsuffixed (Nominative) noun. This postposition seems to have a strong foregrounding effect on the noun (e.g., 'We have been eating fish only'). Similarly, the Instrumental case suffix /-ml/ is distinct from other nonzero case suffixes in strongly preferring absence of NCinfl prefix in nonnegative contexts. The Instrumental case foregrounds the specific material or implement being used.

With respect to the nonzero cases other than Instrumental, the rule given above for when to use the (continuous) prefix must be significantly modified, since in these contexts we have a third possibility (for nonhuman nouns), namely use of the punctual prefix (which is rare for Nominative nouns). Indeed, the punctual form is clearly preferred (except in negative contexts) with the basic spatial case categories, and with the Purposive and Incidentally. Similarly, since the unprefixed type is very rare with these case categories, the major question is whether the continuous/punctual opposition here has anything to do with the continuous/zero opposition in the Nominative.

We have already noted in our discussion of place names (§4.5) that these nouns show the continuous ANA class prefix /ana-/ rather often in the NMET texts with the Ablative but only occasion-

ally with the Allative-Dative. We noted there that in the myth texts, many place names are mentioned initially in the Allative-Dative and then once again in the Ablative, as a protagonist arrives at the location and then leaves it. This is consistent with the view that the continuous prefix has an association with contextual definiteness/givenness. However, there is a much stronger tendency for nouns to have an unprefixed form even in marked case categories (except in negative contexts), and they are not frequently attested with punctual prefix /-a/-.

To examine this question with reference to other (nonhuman) nouns, I have looked at all exx. in NMET of continuous NCinfl prefixes with Allative-Dative suffix /-wu:gl/ in its (not dative) sense, since there are a reasonable number of exx. and since we can take this case as representative of most of the nonzero case categories (except perhaps the Relative). A complete list of textual cross-references was given above.

It is noteworthy that of 26 or so attestations, only one (33.4.1) occurs in the myth texts (texts 1 to 45), although the myths take up more than 40% of the NMET volume. I suggest that this is due to the fact that the myth texts are primarily event-oriented narrations, while a great many of the later ethnographic texts describe habitual activities (how to hunt kangaroos, how to prepare cycad damper, how to use bush medicine, how rituals were announced to neighboring clans, etc.). Many of these texts are given in a consistent past continuous verbal tense-aspect; others describing continuing activities are in the present tense (in its habitual or "gnomic" usage). The habitual or repetitive feature of the activities is often emphasized by reduplication of a verb and or near the Allative-Dative noun with continuous prefix (see 55.6.2, 95.8.4, 132.8.7, 142.3.5/3, 143.5.6, 143.6.5). What seems to be happening with the NCinfl prefixes is that the strongly habitual aspect of the texts is contagious, affecting not only the verbs (which are regularly in past continuous or present form), but also the nominal constituents (including many adverbs). Many of the Allative-Dative exx. with continuous NCinfl prefix co-occur not only with past continuous or present verbs but also with other case-marked nouns or adverbs which also take continuous NCinfl prefixes even though this is a highly marked prefix type. For example, demonstrative adverbs like Directional /yu:-\'nu/- to there, that way which usually avoid NCinfl prefix may show up in the marked continuous form, here /an-u-\'nu/ 'to there' in these passages (see 47.2.1, 57.2.1, 59.10.2, 113.8.5, 115.6.5). There is thus a kind of limited aspect-harmony by which nouns in marked cases like Allative-Dative /-\'nu/- optionally override the normal association of these cases with punctual NCinfl prefix, and instead use the continuous NCinfl prefix. This harmony is very far from being absolute, as in shown by the relatively small number of Allative-Dative exx. with continuous prefix (as opposed to the vast number of past continuous and present verbs, many of which co-occur with punctual-series nouns in the same clause. Rather, the harmony is optional and is characterized by strongly habitual, backgrounded contexts. (For a distinct "negative harmony" with aspectual ramifications see §15.6.)
Incidentally, the one occurrence of continuous prefix with Allative-Dative in a myth text (33.4.1) involves this context; during a tremendous massacre of dreamtime people by Mosquito people, the former “all-jumped into-river (continuous) to-there [continuous], Yarara [continuous].” Although specific myth event, this particular segment of the text involves frantic, excited activity by many individuals, a type of action which commonly calls for continuous verbal aspect (as in “all-jumped”). In this discourse fragment it looks as though aspect-harmony is at work (note that the demonstrative adverb and the place name take marked continuous prefix, as does the Allative-Dative noun).

In summary, we seem to have a few basic principles underlying choice between continuous prefix, punctual prefix, and omission of prefix. First, negative contexts as defined here require continuous prefix for some nouns directly under the scope of the negative element. Second, in nonnegative contexts, a broad distinction is made between focused/foregrounded and definite/given NPs, the former favouring omission of prefix and the latter favouring the continuous prefix series (this generalisation accounts for the true Nominative forms, with or without postposition */-w2 Ugij/, and for the Instrumental). Third, again in negative contexts, the spatial (nonzero) case suffixes and certain others favour the punctual series, and even when the suffix is omitted from the surface (giving a pseudo-Nominative) we tend to get the punctual prefix anyway. Fourth, the latter principle is occasionally overridden by aspect-harmony, an optional spreading of habitual/backgrounded continuous aspect from predicates into nominal constituents.

The terms “continuous” and “punctual” for the two nonhuman prefix series do not exhaust all of this information, but they do capture important features of the system. Obviously, the use of essentially aspectual labels is consistent with the fourth principle in the list above (aspect-harmony). It is also, however, consistent with the first, since verbs as well as nouns show morphological neutralisations in negative contexts (the details are more nuanced than this, it is not always the continuous-aspect form in the positive which is retained in the neutralised negative, but this is what happens in the past negative). One might even argue that there is some parallel between nouns and verbs in this connection with the second principle just listed; continuous aspect in verbs in Nunggubuyu is roughly similar to “imperfective” forms in many languages, often serving as background clauses framing new events put in the punctual, and often used in repetitions of clauses which may have been introduced initially in punctual aspect. We are thus justified in referring to the NCinf system as involving nominal aspect in addition to the (semantico?) oppositions among the noun classes.

Functionally, we should also remember that punctual forms are often used when a nonzero case suffix has been omitted by a low-level, optional simplification. The use of the punctual prefix can thus serve as an index or trace, indicating that there is an implied nonzero case. The NCinf Prefix may therefore serve, in functional terms, as a partial case marker; Nunggubuyu approaches but does not attain a system (seen in Mara, for example) where choice of NC prefix series is rigorously connected with cases (in which case we should speak of “Nominative” and “Oblique” rather than continuous and punctual). In Nunggubuyu, however, the prefixal-series oppositions have a complicated set of partly overlapping functions; marking case indirectly, suggesting the scope of a negative (which may extend into a second clause), maintaining cross-reference within and across clauses (though the indexical value of the various noun classes), and reinforcing the marking of strongly habitual aspect.

### §4.9 Uses of NCder prefixes; defective (bound) roots.

The prototypical usage of a NCder prefix (see bottom of Table 4-1 and discussion in §4.7 for the forms) is to take a noun root (of any noun class, or without predetermined noun class) and to convert it into a derived noun of a specific target noun class. For example, the noun /gulmun/ 'belly' happens to be in the NAMA noun class. If we wish to create a set of derived nouns which have overtly specified noun classes, we can add the various NCder prefixes. Since /gulmum/ begins with a stop, phonological rule P-1 applies to the derivatives, inserting a meaningless morpheme */-nu/. The forms are thus (for nonhuman categories) /ni-nu-gulmum/ (NA class), /ni-nu-gulmum/ (NAMA), /nu-nu-gulmum/ (ANA or WARA class), and /na-nu-gulmum/ (MANA class). Note that the derivative may end up with the same class as the root. In any event, the derived noun can then receive the usual nominal inflections for common nouns (NC), including case suffixes and NCinf prefixes. For example, the NA class form may appear as /na-ni-nu-gulmum/ (with continuous NA prefix /na-/) or as /yinu-gulmum-guy/ 'to the belly' with Allative-Dative suffix /-guy/. NCder formations are used to make the noun match that of an independently occurring noun (which may or not appear overtly in the same clause or discourse section). If we take our example with /gulmum/ 'belly', the NCder pattern would be useful for deriving terms to specify 'belly of X', where X is some noun. It happens that 'belly' is the root used for roughly globular or convex parts of many objects, such as the roundish fruits and nuts of many plants. The term for the plant (or other object) has a given NC value, and to indicate the 'belly' (e.g., fruit) of that particular object, we put 'belly' in the appropriate NCder form. Although many details about usage of NCder patterns are lexical idiosyncracies, we should give a rough outline of the system here. Our first observation is that NCder forms are most common to refer to body parts of inanimate objects (such as implements, plants, and (to a lesser extent) animals. Most of the relevant parts do not take NCder prefixes to agree with the noun class of a human referent. Thus, most body-part terms have a lexically specified inherent noun class which appears as such when designating a part of a human being, as with /gulmum/ (MANA class), but take derived form showing whole-to-part noun-class harmony when designating corresponding parts of objects and plants (and sometimes animals).
However, some human body parts are treated as parts of parts (cf. English 'roof of the mouth', 'back of the tongue'), and in this event the more precise term may take Ngder form to agree in Ng with the noun designating the more inclusive body part.

There are also some noun roots which do take Ngder form even when the whole is a human being (or beings). Such noun roots have more elaborate Ngder paradigms than do the majority of roots which only have nonhuman derivatives. This is because the human Ngder forms show other derivational morphology, such as presence of Human Singular (HumSg) /-yun/ or /-un/ and Pl. replication.

A maximal paradigm is exemplified in Table 4-3, which is based on the noun /muwa j/, whose underived noun class is ANA, a subclass of the ANA class. As the cross-references in the dictionary entry will indicate, this root is found now and then in underived form, but most often in Ngder form (for human or nonhuman referent).

A few other roots which can have Ngder forms may be briefly mentioned. /wululu/ 'body, torso' is common as Ngder-gubulu- (see dictionary entry) with nonhumans, and an ex. with human reference has turned up now in Mt 251 in my transcription /nara-nari-gubulu-ymun/ 'her body (corpse)'. Similar exx. involving root /naga/ are cited in the dictionary entry; the root means 'bone(s)', but the human Ngder form is used in the sense 'skeleton'. I do not know if /sululu/ 'skeleton' has similar forms (my data show it in underived form with human reference). However, /naburu/ 'decomposed body' does take human Ngder forms (see entry).

Some other which may have human forms are /magwir/ 'spirit', /lharlu/ 'boss' (different meaning with nonhuman reference), /yinja/ 'head' (found once with Ngder referring to dreamtime being), /manag- 'group, gang' (used in Pl), /manu- 'young, new', and

<table>
<thead>
<tr>
<th>TABLE 4-3</th>
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<tbody>
<tr>
<td><strong>Ngder Paradigm of /muwa j/ 'name'</strong></td>
</tr>
<tr>
<td><strong>human:</strong> Ngder form same with NgSg. added</td>
</tr>
<tr>
<td>/muwa j-grom/ /nul-grom/</td>
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<tr>
<td>/nara-nari-muwa j-grom/</td>
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<td>/muwa j-ma/ /nul-ma/</td>
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<td>/munu-nu-nuwa j/</td>
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<td><strong>nonhuman:</strong></td>
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<td>/muwa j/ /nul/</td>
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<td>/nara-nari-nuwa j/</td>
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<td>/nuwa j/ /nul/</td>
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</table>

§4.9 Table 4-3

| /manaj/ 'fat (one)'. There are also a handful of NAmj which take Ngder prefix to create a feminine counterpart from an underived stem which is used with masculine sense; these are the patrilineal moiety terms /yirija/ and /miniguya/ and the stem /hanambara/ 'eldest, elder (e.g., sibling)'. In the cases of the two moiety terms, the regular Pl (for either sex) is not a Ngder form, but for /hanambara/ we can get a Pl based specifically on the derived F5g form (see dictionary entries for details). |

In addition to nouns like /gulmun/ 'belly'; spherical or convex part which occur productively both as simple stems and with Ngder prefixes, there is a set of defective (bound) roots which cannot be used as simple noun stems. If used as nouns, they require Ngder prefixes. (Most of them can also be used as compound initials.) They are labeled "Nc/Pref" at the head of lexical entries.

Ideally, in each textual occurrence, a defective root should have a derived Ng value based on the lexical Ng of an associated referent. I believe that this pattern is at least approached with some of the bound roots, such as /-lhag-/ 'end, tip' and /-lharlu-/ 'scrapes'. However, we must analyse this point more closely, since many defective roots appear to have an unmarked noun-class value.

In the case with three bound roots designating entralis: /-lhanaj-/ 'entralis', /-lhuwandam-/ 'large intestines', and /-lhuwahaj-/ 'small intestines'. These all have an unmarked MANA form, e.g., /mana-ma-dharan/ 'skeleton', and are used in this form referring to humans as well. Probably the independent nouns /dahana/ and /muwadara/ 'guts, internal organs', both in MANA class, are the relevant influences here. Other defective roots preferring the MANA class include /-lhag-/, /-lhuwahaj-, and /-lugulhanun/ 'small intestines'. These all have an unmarked noun-class value.

In MANA class, for example, we have nouns like /-lhwaj-/ 'end, tip' and /-lhuwahaj-/ 'water lily leaf' (about half of the terms for water lily esp. and their parts are in MANA class, see p. 312 of dictionary, section 1.B.xxi).

Many defective roots, however, prefer ANA class, either ANAg or ANA, subclass. ANAg is found with words associated with wild honey bees (Trigona spp.) and their products: /-galag- 'honey bee', /-zaraq- 'honey', etc. (see dictionary entry for the generic term /zaraq/ 'honey and honey bee' for further information). ANAg is also favoured with /-dhanabar-/ 'fishtail', because the general term /nuji/ 'fish' in ANAg, ANAg, is the unmarked Ngder form in these cases; /-ban-/ 'smoke' (cf. ANAg, /nuini-/ 'fire'); /-lhaaj-/ 'chopped wood, firewood' (cf. 'fire', also ANAg, /rana-/ 'tree wood'); /-lhaaj-/ 'splinter, thorn' (cf. 'wood');
I know of no bound roots for which \( \text{WARA} \) is the unmarked NC value. \( \text{NA} \) is the preferred class in a small number of cases closely associated with a \( \text{NA} \) referent: /\text{n\text{-}aln\text{-}/ 'woonera hook' (cf. /\text{w}\text{a}\text{nd}\text{a}g\text{-}/ and near-synonyms 'woomera', all \( \text{NA} \) class); /\text{ni\text{-}hamun\text{-}/ 'clitoris' may be a frozen \( \text{NA} \) class \( \text{NG} \) form */\text{ni\text{-}hamun\text{-}/)}; with NC value based on */\text{rig\text{-}/}'vagina', cf. synonymous /\text{ni\text{-}hamun\text{-}/}'clitoris' derived from /\text{hamun\text{-}/}'tongue'. \( \text{NG} \) \( \text{A} \) is rare as unmarked NC of derived nouns, but there are one or two roots for parts of dugong (\( \text{n}\text{arugalj\text{-}/), \( \text{NG} \) \( \text{A} \) class) like /\text{n\text{-}ari\text{-}mangu\text{-}/ which naturally show up in \( \text{NG} \) \( \text{A} \) class form.

Overall, we can say that these "unmarked" NC assignments for bound noun roots are usually not lexically arbitrary. Usually they are either a reflection of the fact that a particular bound root may happen to be prototypically associated with referent nouns of a particular NC, or else that they belong to a semantic domain (e.g., disease/injury) whose members are predominantly in a single noun class.

The nouns which can take \( \text{NG} \) \( \text{der} \) forms, including both ordinary and defective (bound) roots, are primarily in these categories:

a) habitat (\'nest\', 'hive');
b) external parts ('face', 'tip', 'blade', 'stem', etc.);
c) internal parts ('intestine', etc.);
d) bodily substance or secretion ('skin', 'excrement', etc.);
e) entire body ('body', 'corpse', 'skeleton', 'pintoot', 'baby');
f) incorporeal attribute ('name', 'spirit');
g) sensory emission ('taste', 'smell', 'image', 'trace');
h) collectivity ('group', 'multitude').

As we have seen, there are also a handful of nouns functioning much like \( \text{NA}\text{d} \)j ('boss', 'new', 'young', 'elder') which can occur in \( \text{NG} \) \( \text{der} \) form, at least under certain conditions. In the following chapter we will see further examples of \( \text{NG} \) \( \text{der} \) forms with kin terms, both to mark referent gender (with the usual human senses) and to mark nonhuman referent gender (with the usual human senses).

It would be interesting to do a complete semantic extension of basic body-part terms in \( \text{NG} \) \( \text{der} \) forms, particularly as applied to parts of plants and objects. We do not yet have adequate data for such a study. However, we may mention a few basic points (see dictionary entries for more details and textual citations). A basic opposition 'front'/'back' applied to many objects is made using derived forms of the body parts /\text{yinag\text{-}/}'face' and /\text{biga\text{-}/}'anus', respectively. For erect objects such as trees, derivatives of /\text{aabali\text{-}/}'top of head' are used for 'top' for 'bottom' we usually have just the \( \text{NA} \)d \( \text{av} \) /\text{hirhibala\text{-}/}'under, inside').

Some references use /\text{n\text{-}aln\text{-}/}'back, backbone' in the sense 'back' or 'base' (of object), and in \( \text{NA}\text{w} \)u form this root can mean 'mainland' (as opposed to 'sea'). A similar term /\text{malan\text{-}/}'backbone' is used in \( \text{NG} \) \( \text{der} \) form to mean 'dorsal fin' (of fish), while /\text{ar\text{-}jabal\text{-}/}'arm' in underived or derived form can be extended to 'pectoral fin'. Derived forms of /\text{ngaga\text{-}/}'bone' can mean 'hard part' (e.g., tough membrane), as well as 'skeleton' (already exemplified). From /\text{lamun\text{-}/}'flesh' we can get \( \text{NG} \) \( \text{der} \) forms for 'flesh, meat' of particular animals (but 'flesh' of nut or shellfish is expressed by a special term /\text{-}\text{in\text{-}/}'in its derived forms). /\text{ubulu\text{-}/}'body' has straightforward applications to animals, plants, and objects, but can also mean 'true identity as referent' or the 'like' (though this is most clearly seen elsewhere in a compound involving this root). From /\text{bagalj\text{-}/}'eye' we can get derivatives meaning 'seed, nut' of certain plants, as in nearby languages, but in Hnggubuyu this usage is somewhat limited due to competition with derivatives of /\text{gulun\text{-}/}'belly'. From /\text{lamun\text{-}/}'tongue' we get \( \text{NG} \) \( \text{der} \) forms meaning 'blade of spear' and 'clitoris' (i.e., tongue of vagina). From /\text{dhalbar\text{-}/}'upper leg' we get the extensions 'hind leg' (of quadruped) and 'tire branch', either in derived or underived form; /\text{wajja\text{-}/}'arm' has derivatives meaning 'wing' and 'sleeve of shirt'. From /\text{mungu\text{-}/}'fingers, hand' we get a slightly irregular /\text{NG}\text{der}-\text{mungu\text{-}/}'hands' (\text{NG} \text{der}-\text{mungu\text{-}/} is usually inserted before stops, not nasalized, e.g., on 'mean, among other things, 'root man'), while forms of /\text{la\text{n\text{-}/}'knee' are used to designate the smaller root corms of certain sedge. It is not clear whether /\text{malu\text{-}/}, a simple noun meaning 'navel', is related in some way to either of two derivative types /\text{NG}\text{der}-\text{molu\text{-}/}'navel' (listed separately in the dictionary), meaning respectively 'navel, forky' (there is also one usage of derivatives of /\text{gulun\text{-}/}'bone' with this extended meaning) and 'thick honey (honeycomb)'.

Clearly a more thorough semantic investigation would be worthwhile. (We would have to consider uses of these roots, or their semantic extensions, in compounds as well.) However, we should not exaggerate the extent of these human-to-nonhuman body-part extensions and metaphors. As can be seen from the list on pp. 322-23 of the dictionary, there are many terms for parts of plants, animals, and objects which are not special uses of terms also applied to human parts ('gill', 'juice/sap', 'spear shaft', etc.), even though it might have been possible to find a human term which could appropriately have these as secondary meanings.

4.10 Semantics of \( \text{NG} \) \( \text{der} \) categories: human. As applied to humans, the basic \( \text{NG} \) \( \text{der} \) categories are M (masculine), F (feminine), and Pl. M and F usually apply only to Sg and Du with sex merged in the Pl (for three or more entities), although in a few cases involving \( \text{NG} \) \( \text{der} \) markers gender distinctions are maintained in the Pl. As we would expect, the categories M, F, and Pl are essentially given etymologically by the real-life sex of the referents. Duals referring to the combination of one M and one F referent are treated as M.
frequently found with the noun /jandhurg/-/dog/'. When treated as a nonhuman noun, the noun-class category is WARA, thus /wara-/jandhurg/-/for singular or plural). However, in referring to a nonhuman dog (say, one's own pet) it is not uncommon to find human forms showing actual gender: /na/-jandhur/-/male dog', /nara/-landhur/-/bitch'. An ex. of the M form is in NMET 162.5.3, a line which also shows M prefix /na/- with the dog's personal name. See also 29.7.4, 43.1.1, 43.14.2.

Sometimes Forms were the only traditionally domestic animal, this treatment is not usual for nouns designating other fauna spp. However, in the right context, human forms can be added to other fauna terms. Text 45 in NMET is instructive in this respect: it is about a (male) crocodile who abducted an Aboriginal woman and was described by the narrator as an actual historical episode which occurred within the memory of the oldest men (though not the narrator himself), 'Crocodile' is normally the NARA class noun /lharagula/-, without reference to actual sex of a given animal, and this is the noun-class treatment of the noun in this text in its initial occurrence and several times later on e.g., 45.1.1, 45.9.2. However, since the crocodile rapes the woman, fathers her (crocodile) children, and in general shows normal male human behaviour(1), at one point there is a shift to M form human: /na-lharagula-yung/-/45.6.4. There is also a kind of compromise form /nara-lharagula-yung/-/45.9.1, with HumSg suffix as in the M form, but with F rather than M prefix /na/- (this is because human F and nonhuman NARA are closely associated formally and share the prefix /nara-/-, variant /nara/). Other instances of human M form (including HumSg suffix) with a normally nonhuman fauna term are in NMET 20.10.1 (king brown snake, as mythical figure), and 34.6.1 (native cat, also as mythical figure).

If we leave aside dogs, devils (ghosts), and babies, we can say that nonhuman/nonhuman division is rather consistently maintained, the main exceptions being the relatively unpersonification of myth figures, and the occasional use of WARA forms for abstract human collectivities.

4.11 Semantics of nonhuman NC categories: NA, NARA.

If we are looking for simple rules of thumb for explaining why each nonhuman noun stem is assigned a particular NC category, we are going to be disappointed. There are five nonhuman classes (NA, NARA, WARA, ANA, MANA), and the ANA class has ANA wu and MANA wu, and the NARA class has ANA wu and ANA subclasses with different direct-object concord in verbs. None of the classes is particularly unitary semantically. If we look at sets of nouns in semantically/natural lexical domains (e.g., catfish, edible roots), some of which are explicitly recognised as Ngumbubuyu domains by the occurrence of a superordinate term, we find that the specific superordinate terms are scattered across specific NC classes. In the neighbouring Ngandi language, a similar noun-class prefix system shows reasonably close correlations of particular domains with specific noun classes, but such correlations are much weaker in Ngumbubuyu.
Let us consider some exx. of tightly defined lexical domains or subdomains and observe the NC distribution of the component terms:

- paperback trees: NA (4), MANA (3), ANAwu (2).
- goanna/wallabies: ANAw (3), MANA (1), NgARA (1).
- freshwater tortoises: WARA (2), ANAw (1), MANA (1).
- spear/heads: ANAw (12), MANA (5), Na (2).
- goanna lizards: WARA (2), MANA (1), ANAwu (1).
- ants: NgARA (2), Na (1), WARA (1), MANA (1), ANAwu (1).

While these data may suggest associations between NC categories and semantic domains, the correlations are at best statistical, suggesting of marked or "wastebasket" classification patterns for those stems which lack a contextually marked NC.

In this and the following section we try to squeeze out any discernible semantic patterning we can find. However, we should observe immediately that the NC system has important linguistic functions regardless of the semantic motivation of the system. Provided that all speakers agree on how a given noun is classified, the NC marker by itself (e.g., attached to a modifying adjective or part of the concord markers in the verb) has indexical value in discourse. Specifying, for example, that the direct object (not overtly marked) in a given clause is MANA class severely limits the range of contextually possible referents. In texts, it is not unusual for a referent to be thus "pronounalised" even in its initial introduction into the discourse, so that the full NP is never pronounced; this is done when the speaker feels that the combination of the NC marker and the context is sufficient to identify the referent (when addressing a competent native speaker).

The first two classes we consider are NA and NgARA. As non-human NPs, these are relatively marked (as is WARA). On the other hand, they are reasonably widely distributed across semantic domains, suggesting that they might tend to occur with terms designating salient or unusual species and objects. Also, since NA is partly identical to the human M (masculine) category, and NgARA to the human F category, we might suspect some tendency for NA and NgARA to be used with terms for app. and objects with gender associations within this culture.

Indeed, there are a number of terms for salient and mythologically important spp, which have these NPs. For example:

a) /laba/ 'moon' NA vs. /sir/ 'sun' NgARA (cf. /inn/ 'star' NgARA)

b) /gami/ 'gecko' NA vs. /wagi/ 'emu' NgARA

c) /nala/ 'green' vs. /nu/ 'dugong' NgARA

d) /wula/ and /hali/ vs. /naban/ (palm sp.) NgARA (two fan-palms) NA

e) /bogarya/ 'crow' NA ---

f) --- /budargu/ 'brolga' NgARA

g) /janji/ 'jabiru' NgARA

In (a) and (b) we have spp. or natural entities which are directly opposed to each other; (a) for obvious and universally valid reasons, (b) because the gecko lizard and emu (large flightless bird) are major husband-and-wife protagonists in an important myth (NMET texts 3, 4, and 5). Moon (in (a)) is also a mythical protagonist, but is not opposed to sun in that context (NMET text 4). Ngara assignment in (e-g) is related to these facts; crow is a male figure in an important myth (NMET texts 11, 12, 13); brolga is depicted as a female character in a squabble with emu (NMET texts 6, 7); and jabiru appears in a myth as a voracious figure with possible feminine attributes (NMET text 10).

The sets in (c) and (d) involve spp. which form natural oppositions, turtle and dugong being the two major marine food sources, the palms in (d) being the ones whose shoots are eaten. However, in these cases the specific choice of NA and NgARA classes seems more arbitrary. I would venture the suggestion that these NPs are used here not because of any specific association of green turtles or Livistona palms with masculinity, or of dugong or Psychopsarpum with femininity, but rather because NA and NgARA (being modeled, as it were, on the M/F opposition among humans) are a convenient device for expressing or dramatising low-level but highly salient app. oppositions, and are here appropriated for this purpose. (Turtle and dugong do occur together in myth (text 62 in NMET), but their gender does not appear to be highly material in the myth, which is in any event associated with Warnarang rather than Nunggubuyu territory.)

In those cases where we are explaining NC assignment by pointing to a specific gender identity in myth (gecko, emu, etc.), there is still the question why these spp. have such a gender identity in the first place. This is perhaps not a matter for a grammar to deal with, but we might drop a few hints. First, a set of large birds and conspicuous birds found around swamps (emu, brolga, jabiru) are all treated as feminine in myths, exhibiting a range of personality types but principally negative (trickster, greedy, etc.), especially when directly opposed to male figures. Second, ritual swallowing is associated with female characters, and the imagery being sexual at bottom, so it is not surprising that several python terms are NgARA, including /majbarwar/ 'olive python' (see NMET texts 1, 2); jabiru and emu also engage in swallowing (and regurgitating) in their myths, and in the myth of crow and the two women (NMET texts 11-13), crow is metaphorically swallowed (being tricked into jumping into a hole filled with excrement and covered with grass), is subsequently parasitically devoured by voracious meat ants (/yagi/ NgARA class), and then obtains his revenge in a manner involving clearly phallic symbolism.

However, specific mythical associations cannot explain more than a small number of NC assignments (at least, not synchronically), since only a small number of spp. and few or no objects turn up in the myths (of which Hughes and I have, between us, published comprehensive collections, to which may be added van der Leeden's work). We will therefore now proceed to identify some particular lexical domains which seem to have relative concentrations of NA and/or NgARA stems.

180 §4.11
For the NA class we may be able to identify the following:

4. Other trees whose roots are eaten: /luru/, /yan/.
5. Trees whose nectar is sucked: /gilldii/, /wabur/.
7. Rainbowfish: /yinawu/.
10. Flies: /a:mun/.
11. Very large fish (except rock cods): /yinggulbandi/.
12. Some hawks: /wadanawandi/.
13. Bones used as tools or for sorcery: /niman/.
15. Other useful wood or tree bark: /milu/.

Fish other than those in {f, g, j} are /ba:wa/ 'flounder', /yurakula/ 'butterfish', /janlaji/ 'shovel-nose ray sp.' (the other sp. in MANA class), /yinri/ 'fork-tailed catfish sp.', /marburan/ 'perc sp.', /sululu/ 'milkfish' (for sorcery), /yinli/ 'perch sp.', /yirilg/ 'parrot fish', /yambugu/ 'sea-bream'.

Trees and shrubs: /gumbudu/ 'sandalwood', /malha/ 'shrub sp.', /nurnu/ 'tree sp.', /jadag/ 'milkwolf', /anara/ 'mangrove sp.', /warljar/ 'wattle sp.', /yinhibu/ 'wild apple', /yinli/ 'cypress', /yan/ 'sandpaper fig', /yulin/ 'tree sp. near mangroves'.

Other plants: /janrara/ 'reed-like plant', /lulawu/ 'sharp grass sp.', /lara/ 'sedge sp.', /munul/ 'swamp plant with edible tubers', /mawardhara/ 'herb sp. near swamps', /warumun/ 'wild cucumber (melon)', /langali/ 'tree orchid', /yambugu/ 'celery-like herb'.

Insects and larvae other than in (k-j): /ba:ba/ 'butterfly', /handu/ 'moth', /janamuru/ 'beetle sp.', /halaguna/ 'cold S/SW wind'.

Direction-specified winds: /ba:wa/ 'NW wind' and some near-synonyms like /balalamu/ 'wind', /jurri/ 'cold S/SW wind'.


Among birds other than hawks we have /janlaj/ 'nightjar', /yinjali/ 'black duck', /nunu/ 'magpie goose', /warag/.
4.11 Semantic clusters with others of the same class.

Anindilyakwa origin, along with NgARA nouns beginning with /dhu/
and rider'.

For example, quite a few NA
from other languages, and some may have carried over a noun-class
assignment from the other language. For example, quite a few NA
nouns beginning with /yi/ or /y/ can be suspected of being of

We now list other NgARA nouns which do not belong to tight
semantic clusters with others of the same class.


Snakes: aside from pythons, (d) above, we have /jaran/ga/ 'sea-snake', /wulun)

Sharks: (e) and (i), also /gumba:miri/ 'batfish sp.'

Trees and shrubs:-/mangayanga/, /ngabannga/ (palm),

Fish: (a) and (i), also /gumba:miri/ 'batfish sp.'

Plants:-/yilmangani/, /yulpag/, /jandhurg/, /ma/amag/.

Insects:-/mir/ 'wasp', /yag/ 'meat ant', /yindirarg/ 'ant sp. (also a plant sp.), /mula/ 'mosquito', /gabnura/ 'large mosquito sp.'

Plants:/jarangay/ 'tall grass (Sorghum)'.

Other fauna:/yuran/ 'schild', /lharagula/ 'crocodile', /gandula/ 'rock wallaby', /naluta/ 'hawkbill turtle'. Also one introduced quadruped:/jaran/gu/ 'horse', /walbarg/ 'horse and rider'.

Human body parts: none.

Implement:/jiragali/ 'sharp stick' (usually from /yiwujun ga/
yuwin/).

My basic position on the semantic structure of these classes
is that there is no overall, global principle, rather a number
of independent lexical items or small clusters of associated lexical
items which make up each class. In a few cases we can "motivate"
the assignments by noting the morphological connection between
these nonhuman classes and the human M and F categories, as noted above.

Female kangaroo/wallaby terms should be mentioned here, in addition
to NgARA and NA spp. associated with gender-specified myth
protagonists. In some cases, naturally opposed lexical items like
'green turtle' and 'dugong' take advantage of the polar status
of NA and NgARA to emphasise the lexical opposition, without a
particularly cogent reason why NA goes with one term instead of the
other. One can always try to speculate; in the case of 'green
turtle' (NA) vs. 'dugong' (NgARA) we would observe that turtles
have good vision but poor hearing while dugong have sensitive
ears but no vision (important features in hunting, and emphasised
in the relevant myth), and then try to connect this with deep-

4.12 Semantics of nonhuman NC categories: WARA.

The number of attested WARA nouns is smaller than that for any
other nonhuman class, but is not much lower than the figure for
NgARA. We have mentioned in §4.10 that there is a pattern by which
WARA instead of human PI is used for unindividuated human
collectivities of some types, as well as for many nonhuman
(ghosts) and for Man's Best Friend (dogs). There are quite a few
other WARA nouns, but it is a marked class, typically used with
relatively distinctive and salient spp. or objects. The following
are the most significant semantic clusters:

- ghosts: /hadagala/, /mugan/ (Also ANAG.)
- dog/dingo: /landhur/, /wungga/.
- freshwater tortoises: /gahmaray/, /madalaj/.
- rats: /hudag/, /wungun/ja/.
- geanna lizards: /madihir/, /vulun-wak,alga/, /wugud/,
- water lily (especially round seed pods): /dhagallrig/,
- tadpole: /hadagala/, /madalaj/.
- small fish found chiefly among mangroves: /dimbul/,
- /hawaran/gay/, /mabali/, /wilgiri/,
- mud-whelk shell: /hidai/, /madadigana/.
- /jandhurg/, /ma/amag/.
- jardigulp/.
- jandhurg/.
- water lily (especially round seed pods): /dhagallrig/,
- /yagurl/, /aya/.
- toadfish: /hadagalan/, /yilgul/.
- /jandhurg/, /wungun/.
- /mabali/, /wungun/ja/.
- /jandhurg/.
- /mabali/, /yilgul/.
- /andhurg/.
- /mabali/, /yilgul/.
- /jandhurg/.
- /mabali/, /wungun/ja/.
- /jandhurg/.
- /mabali/, /yilgul/.
- /jandhurg/.
- /mabali/, /wungun/ja/.
- /jandhurg/.
- /mabali/, /yilgul/.
- /jandhurg/.
- /mabali/, /wungun/ja/.
- /jandhurg/.
- /mabali/, /yilgul/.
swellings: /lharbag/ 'bush lily' (Crinum, with bulbous root), /wulbura/ 'round yan' (Dioscorea), /gag1/ 'wild onion' (apparently Taccas); note possible connection with terms in (j) and perhaps (m) on grounds of spherical shape.

There may be some further semantic patterning here regarding a predilection for spp., associated with swappy environments ranging from freshwater billabongs to coastal and riverine mangroves (tortoises, frogs, mud-whelks, mangrove-dwelling fish, water lilies, snails, tuberous swamp plants, bush lily, one rat sp.).

Aside from the terms listed above we have a number of other WARA items.


Fish: /mulubija/ 'marine herring', /jilubija/ 'salmon sp.' (other salmon is ANAwu), /hulurug/ 'whiting', /midhuranja/ 'fork-tailed catfish sp.', /huryu/ 'sleepy cod', /wuraga/ 'eel', /wurabagija/ 'parrotfish', /yalumija/ 'unidentified ray sp.', /yarba/ 'ray sp.', /lisa/ 'lime', /lirag/ 'blue-tongued', /waralugu/ 'frilled', /ala/ 'skink'.

Snake: /wulimir/ 'green tree snake'.


Invertebrates: /yaliga/ 'jellyfish'.

Shellfish: /ngadin/ 'cowry', /wuragala/ 'grass sp.'.

Lizard: /lirag/ 'lizard'.

Body parts: /hini/ 'wart', /naga/ 'navel'.

Some of the items in the lists just given might be correlated with the more productive semantic patterns alluded to earlier (spherical shape, swappy environment), but most of the items just listed do not fit obviously into these categories. Observe the absence of implements and topographic units from these lists for the WARA class.

4.13 Semantics of nonhuman NC categories: ANAwu, ANAh, and MANA.

We now turn to the three categories which have no morphological relationship to any human NC. There are two classes marked in noun morphology itself: ANA and MANA. The former may be divided into ANA and ANAwu subclasses, since the two have different object concord in the pronominal prefixes attached to verbs:

(4.xiv) ana-ru:w1ja nhama-n² 'I saw the fish'
ANA-fish I saw it (ANA) [prefix: Table 9-1]

(4.xv) ana-wa:ga nhawa:ma-n² 'I saw the grass'
ANA-grass I saw it (ANA) [prefix: Table 9-14]

Because of the large number of nouns in these categories, it would require considerable space to list all of them with commentary. Since the dictionary includes appendices with lexical lists by semantic domain, with noun-class specified for each noun, readers interested in fine details can find much of what they need there. We will concentrate on general patterns here.

First, an opposition between ANA and ANAwu appears in "generic" but which is called "life-form" in recent cognitive anthropological studies. The generalisation is that life-form terms are ANAwu for fauna and ANA for flora. We have just seen "fish" in (4.xiv) other fauna life-forms are /wagaliga/ 'turtles (marine) and dugong', '/marri/ 'snake', /nuruluwa/ 'bird', game animal (terrestrial), /laga/ 'honey and honey bees', /marangara/ 'shell, shellfish', /murbaranga/ 'freshwater game', and a few intermediate taxa under 'fish' like /ma:lah/ 'small rays' and /yagilagalu/ 'freshwater fish at time of first rains'. The basic ANAwu flora terms are /ma/dj 'grass, herb' (non-woody terrestrial plant) and /garagi/ 'wood, tree, shrub'.

In the case of ANAwu, the pattern shown by the life-form terms is continued (though in a statistical manner rather than an absolute one) in lower orders of taxonomy. That is, ANAwu is the most common NC overall for specific fauna terms, but is uncommon in other lexical domains. Birds show a scattering of noun classes, but ANAwu is found for several owls, bitterns, and terms and for many of the larger individual spp. like glossy ibis, great kookaburra, butcherbird, koel, kingfisher, friarbird, cuckoo, chestnut rail, etc. Other NCs are favoured for the largest birds and for parrots, ducks, and geese. ANA is common for mammals including three out of five kangaroo/wallaby terms (except for specifically female terms), possums and introduced spp. (boar, donkey, cat, bull), but which is called "life-form" in recent cognitive anthropological studies.
NC is not used: /guju/ 'baby', /ba:jirin/ 'ghost, devil'. It is also the ANAw class which is used to cross-reference the nonhuman WH interrogative /yan/ 'what?', and the term /gai/ 'animal' /gai/ 'monster, terrible'.

The remaining classes, ANAw, and MANA, are most often opposed most strongly to each other, and the two are co-dominant in a number of important nominal domains.

Let us begin with a few important nouns which occur in both of these classes but with different senses:

<table>
<thead>
<tr>
<th>Noun</th>
<th>ANAw sense</th>
<th>MANA sense</th>
</tr>
</thead>
<tbody>
<tr>
<td>/gara/</td>
<td>wood, tree</td>
<td>burrow (of animal)</td>
</tr>
<tr>
<td>/runag/</td>
<td>hollow tree</td>
<td>dugout canoe</td>
</tr>
<tr>
<td>/munggala/</td>
<td>top of tree-trunk tree platform for corpse</td>
<td></td>
</tr>
</tbody>
</table>

In these instances, the MANA sense is that of a naturally occurring object, while the MANA sense takes the same object and makes it into a container or vehicle put to actual use. A somewhat similar opposition, this time involving NA instead of ANAw, is seen with /lhanda/, which means a) 'termite mound' (NA class) or b) 'native oven' (MANA class). Since a native oven is made in the ground with termite-mound chunks (or stones), we again have an opposition between a natural substance on the one hand and its practically useful appropriation on the other. However, this type of lexical opposition made by NC categories is confined to a small number of nouns and is not freely producible. A few other connections which are attested with two NCs but which are either cases of random fluctuation or cases of two unrelated meanings: /ba:jmal/, /dhiri:/, /dhurumri:/, /gangujgulu/, /gabagabi/, /mliya:/, /wulmuwar/, /wunali/, /yu:mun/. A case showing NA vs. MANA but with a distinct semantic relationship is the NC is given correctly as ANAw (§4.9). MANA items are /yu:li:gu/ 'SE wind' (presumably MANA because the Nunggubuyu inhabit the west side of the Gulf and thus easterly winds, especially the strong SE wind of the dry season, come in off the coast), /wuu:da:mu/ 'cold wind' (usually SE wind), and /ma:lu:/ 'twister'.

At least a general connection between MANA and coastal environment terms seems present here, as with toponymic terms.

Terms for wind and weather tend to be ANAwu, more than MANA. (There are also other some NCs involved), ANAwu, exx. are /anbana/ 'rain, rainfall' (also NAwu), /nubunri:/ 'Cloud', /wu:jil/ 'fog', /wuniriri/ 'drizzle', and /jumala/ 'NE wind', and the unmarked NC of the defectve root /-lhangunY-/ 'wind' is ANAw (§4.9). MANA items are /mariga/ 'SE wind' (presumably MANA because the Nunggubuyu inhabit the west side of the Gulf and thus easterly winds, especially the strong SE wind of the dry season, come in off the coast), /wu:da:mu/ 'cold wind' (usually SE wind), and /ma:lu:/ 'twister'.

For time of day are mostly adverbial nouns of ANAw, class (or at least ANAw class if not found as objects): /adhawaya/ (3 AM) afternoon, /n:mu:gu:ja/ (early morning), etc. [For /wu:da:mu/ 'wind' (presumably MANA because the Nunggubuyu inhabit the west side of the Gulf and thus easterly winds, especially the strong SE wind of the dry season, come in off the coast), /wu:da:mu/ 'cold wind' (usually SE wind), and /ma:lu:/ 'twister'.

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Diverge. Others include bloodwood /lhumulu/ ANAWu and woollybutt /wumurungu/ MANA. A focus on bark might explain the assignment of stringybark, but not the others (and the species-specific term for the bark of stringybark tree is /lahir/ NA).

Of the two pandanus spp., the /wugurgyang/ species, the spiral type is /magu/ MANA, and the red vine type is /wulja/ ANAWu. Among the palms, /gadara/ 'coconut' is MANA, as is the cycad tree (not a real palm) /n/adhu/ MANA. Palms with edible shoots, however, are NA or N'ARA.

A number of wattles (Acacia spp.) are MANA. There are two in the ANAWu class: /anaru/ (a prototypical source of wood for yamsticks, also called /amuru/) and /wilgalala/. Most figs are likewise MANA, though one, /yi/humum/ is ANAWu. Of the eight or so mangroves or closely associated spp. (a class defined by habitat rather than by obvious morphological affinities), four (including the prototypical mangrove /Apa/) are MANA and none is ANAWu (assignment for the seed pod of /apa/ is ANAWu). Of several terms for spp. whose main cultural importance is providing wood for spear shafts, the clear majority are MANA (cf. the term /jardal/ MANA 'spear'), except for one wattle and stringybark (the latter is used mainly for other purposes, though). Similarly, a set of terms for a group of spp. (closely related botanically) whose main usage is providing wood for firedrills (the terms in some cases being identical with the term 'firedrill') are also MANA: /buduwa/ , (W)alburum/gu/ , /lhumuman/ , /agara/ .

Of two kurrajongs and one closely associated spp., /adija/ 'kurrajong' is ANAWu while /yarawug/ 'kurrajong' and /balbi/ are MANA. All three can be used for string fibre (cf. /mabur/ ANAWu 'string'), but /adija/ is the least useful for this purpose and also has the least desirable (though still edible) nuts, and these factors may favour the attested classification (between /adija/ and /yarawug/, which is quite obvious perceptually, see text 62 in MNEM, a myth in which the two are in parallel opposition.) Another case of NC opposition of two closely-related spp., is seen with /aragir/ MANA 'coastal whistling tree' and /wunurrara/ 'riverine whistling tree' may be influenced by the class opposition. Another case is that of the two Excoecaria spp. (gutta percha type, with dangerous latex which can cause problems if rubbed into the eyes); the one found with mangroves is /dhuddu/, while an inland type is called /wilgalala/, and /gumulala/, the inland red vine type is /wulja/ ANAWu, respectively. The usual coastal/inland NL pattern. Another pair of very similar spp. is /lanuwa/ MANA and /lhumu/ gajalur/ ANAWu, which have very similar soft white fruits.

This still leaves [no pun intended] several other trees and shrubs. One apparent cluster of ANAWu spp. is the set /wumurug/ , /gandannililigu/ , /nagurgaran/ , which are said to be very similar spp. with edible fruits (but not all have been identified). Another is a set of minor scrub trees: /galama/ , /n'gun'agiligi/ , /murun/ , etc. However, two more general (and much more common) terms for scrubs, /mating/ (various spp.) and /mahidi/ (a wattle), are MANA.

Among climbing vines, we have a pair of important edible spp. of ANAWu class, wild banana /wumurug/ and wild grape /wuyaran/ while the unutilised sp. /mangalig/ is MANA.

Among grasses and other herbs (non-woody plants), MANA is predominant though ANAWu is also well-represented. A class opposition like some seen earlier is /lhumul/ 'coastal cane grass' (MANA) vs. /numu/ 'riverine cane grass' (ANAWu).

The only ANAWu items here forming clusters are those: two wild potatoes /wuhunman/ and /munamburg/ and two gooseberries /mali/ and /wurnu/ (ANAWu). Other ANAWu grasses/herbs are isolated individual terms: /dhunjira/ 'fern', /girbla/ 'wild passionfruit' (early English loan from creeper), a yam-like root /waruwa/ , grass potato /miliga/ , a minor grass sp. /samburuwaruwaruwaru/, /cattail/ /wuran/gur/gur/ (MANA 'spear'), except /mandhabi/; several terms for Nymphaea water lilies or their parts and the associated sp. /aapagamen/ , /managuyuwa/ , /maidina/ , /yanbigi/ , /wuruji/ , and the unmarked form of bound root /-wirl-/; several terms for (mostly floating) aquatic plants /maia/ , /miringu/ , /nudin/ , /luang/ (ANAWu) , /wurug/ , /aghi/ , /wurugburug/ , /yuligali/ , and other more isolated spp. of MANA class are a beach grass /munurgu/ , the spinifex grasses /armal/ and /yain/ , the grass /arigari/ used in honey, a grass used for ornamentation /migarang/ , an edible root /yalali/ , a yam-like root /gilgi/ , a swamp plant with edible roots /yurug/ , a tubercle swamp plant /imalu/, bloodroot /dhundu/, a sharp-fruited creeper /nigirabururu/, a vine eaten by emus /wurugburug/ , and a chenopod /yuligu/ . For some of these spp. or groups, the most serious competing NC is MANA 'water lilies, swamp plants, beach grasses and chenopods' /numu/ , while other classes like NA show up with a small number of terms.

In the various fauna domains, ANAWu and MANA are fairly uncommon, often showing up for one or two spp. each in a set of five to fifteen lexical items, hence with little possibility of forming semantic clusters. The major clumps we can cite only /muluyu/ 'nail-tailed wallaby' and /wanga/ 'bandicoot', both MANA. Among the fish we have about 15 ANAWu terms and half as many MANA terms in a large list, including a few sharks, perch, and long-toms/garfish plus a few conspicuous (ANAWu) isolates like archer fish, barracuda, and bony bream. Among reptiles, we have a few instances of MANA and three of ANAWu, but no clustering. A scattering of ANAWu and MANA terms occur with shellfish and insects, but with no real clustering except for some MANA grub terms. The only real concentration occurs with crabs and other crustaceans, which show several ANAWu and MANA terms (dictionary, p. 318).

Among body parts for humans, ANAWu is most common and can be taken as unmarked, as is the general term /wubulu/ 'body'. The only
other important NC is MANA; the others are a handful of NA terms and two WARA terms. It seems best to characterise the MANA terms and assume that the remainder is mainly ANA.

Among general (unlocalised) terms, MANA is found with 'blood', 'sweat', 'sweat (for an excretory pipe)', and 'fat' (v.s. ANA, for 'akin', 'galiya', 'bone', 'urine', 'tears', 'vomit', 'sweet', and ANA for 'flesh, meat'). This would seem to suggest that MANA is found with more powerful or dangerous substances than ANA. Other terms with MANA for external body parts are: 'eye', 'ear', 'head hair', 'nape', 'groin', 'hair', 'blood', 'abdomen', 'rear end/anus', 'penis', 'thigh'. No single generalisation can be drawn (some ANA items are 'pubic hair', 'groin', 'hip', and 'nose'), but we do note that the extreme parts of the limbs are not included, and that there is some concentration in what we might again consider the more potent organs (of sex and perception) and in the central term. Among internal organs, MANA is found with 'stomach' and the various intestines (but ANA is used for 'heart', 'liver', 'kidney', 'spleen', 'womb').

Special body-part terms used with nonhuman fauna show a greater tendency to be MANA (see p. 322 of dictionary). Part terms used specifically with flora and inanimate objects are difficult to generalise about since most such terms are bound roots which acquire derived NC by whole-part NC harmony, with NC prefixes (§4.9).

 Implements and weapons are diverse in terms of NC. The general term for 'spear' is regularly MANA, but terms for particular types show ANA, outnumbering MANA. ANA is used for most boomerangs, but the particularly vicious hook boomerang is MANA. (It could be that this helps explain the NC assignment of spear types; those with many jagged barbs are MANA.) Terms for axes are ANA, but the old stone hand axe is MANA, while fighting sticks are MANA. Most containers, and terms for dwellings (for humans) are ANA, while terms for boats and shelters (for humans) are ANA, while terms for stone and earth (for nonhuman Pl reference) are MANA, as are a good number of relevant components ('paddle', 'rudder', etc.).

There are four major collective rituals. The two least secret, and serious ritual.

Relatively abstract terms connected with rituals or clan songs are mainly ANA, as with /mun/ 'clan song', /guraw/ 'guwan/ 'ritual purpose or performance', /lirin/ 'fooling around', /galaj/ 'having fun'. The same is true of other general terms for types of activity: /bari/ or /tharug/ 'walking about, bike', /wungal/ 'exchange', /wunari/ 'flight', /manu/ 'manu/ 'illicit' sex', though these are typically used as adverbial nouns.

In general, then, the NC system as applied to nonhuman nouns is semantically opaque in many cases, though there are some visible patterns (abstractions or statistical). For a large part of the nonhuman nominal lexicon, it is probable that the NC category is learned as part of the lexical entry, rather than being predicted automatically from a few general principles. A fairly trivial exception to this is the fact that true synonyms almost always have the same NC, and the fact that whole-part relationships expressed by NC prefixes (§4.9) involve NC harmony.

In the preceding sections on NC semantics (§4.11 to §4.13), we have generally given simplified glosses for nonhuman nouns (e.g., without scientific species identifications). For further information on such matters the dictionary should be consulted.

4.14 Types of reduplication.

In Chapter 3 we discussed Initial Reduplication (rule P-2) and Final Reduplication (P-3). Only P-2 is relevant to nouns. As explained in §3.3, the basic generalisation is that monosyllables and stems beginning with a stop have monosyllabic reduplication /CV1 CV2/, while polysyllabic stems beginning with something other than a stop have a bisyllabic reduplication /CV1 CV2 CV3/. Further complications are discussed in that section.

For nouns, the regular grammatical function of reduplication by P-2 is Pl marking. This function is found with a large number of adjectival nouns (NAJ), and hence with a number of equivalents of many English human nouns (other than kin terms and personal names). However, many such nouns take a Pl prefix such as /mij-/ instead of reduplicating, so the Pl must normally be specified in dictionary entries. Reduplicative NAJ may be used for nonhuman Pl reference, however. (Nonadjectival) nonhuman nouns themselves have no plural marking (except for collectives, see below).

Some exx. of regular Pl reduplication by P-2 for NAJ with plural (more than three) sense are these:

SG:
badirina ba-badirina ghost
dhuradora duh-dhuradora white man
yalmar ya-la-yalmar foreigner
ra-na-ra-wanggu old woman

(In nonpredictive use, the SG forms shown would be modified by adding the relevant HSwG suffix, except that this is only optional for 'gost'.)

There are also some high-frequency irregular plurals which in some cases (e.g., like irregular reduplications:

SG:
manuny manuny woman
w2irig w2iriguny small
w2irign w2irignuny small

(The same remark about use of HSwG suffix made above applies to these items as well.) The two Pl forms for 'small' are also unusual in that, with human reference, Pl prefix /mij-/ is added, hence /mij-burayun/ 'children'.

§4.13, §4.14
The two stems for 'small' consistently use the irregular Pl for plural sense with nonhuman as well as human nouns. Since nonhuman nouns (except for a handful of collectives, see below) do not mark plural, either in their own affixes or in cross-referencing pronouns in the verb, the Pl form of a modifying adjective like 'small' may be the only evidence of (cryptotyph) plurality of such nouns. For example, /nata/ 'grass' has no direct Pl form, and since the English counterpart is usually a mass noun we might assume this is also true of the Nunggubuyu word. However, /nata/ may co-occur with a NAdj like 'small', and in this case we may get /nata-nunayi/ 'grass', suggesting a (usually hidden) underlying plurality.

Some other NAdj with similar high-frequency Pl forms used with nonhuman as well as human referent are these:

<table>
<thead>
<tr>
<th>NAdj</th>
<th>Pl form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>jamungur</td>
<td>/jamun-gala/</td>
<td>river</td>
</tr>
<tr>
<td>alagai</td>
<td>/ala-lai/</td>
<td>bad</td>
</tr>
<tr>
<td>rungal</td>
<td>/run-gu-run-gal/</td>
<td>big</td>
</tr>
</tbody>
</table>

On the other hand, for many of the less common NAdj which take a reduplication Pl, the reduplication is sometimes nonhuman and simple and omitted. (For /lhi/ → /dh/ in 'short', see P-19.)

In addition to the Pl reduplication just illustrated, we have at least two other types of nominal reduplication using essentially the same phonological rule (P-2): collective and adjectival. The term 'collective' is applied to a few topographic nouns which reduplicate to indicate a substantial but indefinite number of instances:

<table>
<thead>
<tr>
<th>NAdj</th>
<th>Collective Pl form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ala</td>
<td>/ala-'la/</td>
<td>river</td>
</tr>
<tr>
<td>wuguru</td>
<td>/wuru-wuru/</td>
<td>billabong</td>
</tr>
<tr>
<td>rii</td>
<td>/ri-rir/</td>
<td>island</td>
</tr>
</tbody>
</table>

The adjectival type involves reduplication along with a suffix /-j/ which may ablaut the preceding vowel to /u/. The reduplication is obligatory in most of the stems I have in mind, but there is often a cognate verb which may fluctuate between simple and reduplicated form. In any event, the reduplication is not specifically plural or collective in the noun forms (and need not be specifically repetitive or prolonged in the verbs). See §4.15.

Verb

<table>
<thead>
<tr>
<th>NAdj</th>
<th>Pl form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>/yara/</td>
<td>/yara-waru-j/ 'crooked'</td>
<td>(cf. P-19)</td>
</tr>
<tr>
<td>/wilu/</td>
<td>/wilu-wilu-j/ 'plant'</td>
<td>(&quot;&quot;&quot;)</td>
</tr>
<tr>
<td>/gama/</td>
<td>/gama-gama-ja/ 'two'</td>
<td>(NAMUT 161.19.4)</td>
</tr>
</tbody>
</table>

There are also a number of frozen formations of this type for which a synchronic segmentation is questionable, as with /jama:/ 'long, tall'. There are also some cases where a noun or NAdj is derived from a simple noun root by reduplication and addition of /-yij/, as in /nata/ 'grass', derivative /nata-nata-yi1/ 'having lots of grass'. For more details and exx. see §18.14.

It should be noted that in the exx. 'crooked' becomes /h/ by Leftward-Hardening P-19 in some contexts, just as /h/ in 'short' (above, this page) becomes /dh/.

In addition to plural, collective, and adjectival reduplications, there are a few other possibly distinct minor types. The time-of-day adverbial nouns /'amugiga/ 'morning' and /adhara/ 'dusk' are often found in reduplicated form with no specifically repetitive or plural sense: /'amugiga-ga/ 'morning' and /adhara- 'dusk'. This may be related to the tendency of cardinal-direction adverbs to take special reduplicative forms (§7.29).

From /muru/ 'foot' a form /mu-mu/ 'pl./s. foot' is recorded (NMUT 161.19.4). The suffix is Ablative /-alu/, it looks as though a special reduplicative form is used here.

Alongside adverbial noun /muru/ 'first (in place)' we have a noun or less equivalent form /muru-muru/ which has no specific Pl meaning. Perhaps this is related to the isolated reduplications of other adverbial forms just mentioned.

From /ru:/ 'tree' (AHAlu class) or 'dugout canoe' (MANA), we have /ru:-ru:/ 'wooden seats in canoe' (AHAlu). Here the reduplication has an idiogenic derivational function.

The various nominal reduplications we have seen occur at the beginning of the root or stem, and do not include the NC infl suffix. Even with monosyllabic roots, suffixes such as case markers cannot be copied in the reduplicative segment. NC infl suffixes are part of the stem and thus are affected by reduplication, so that /ru:-ru:/ 'wooden seats in canoe' shows up as /ru:-ru:-ru:/ ((cf. P-19)).

4.15 Regular number-marking.

For nonhuman nouns, there is no Sg/Pl opposition, except that as noted in the preceding section some NAdj use their Pl form with nonhuman as well as human referents. A minor collective reduplication used with topographic nouns is also mentioned in the preceding section. However, nonhuman nouns often do take Du suffix /-a/, hence /arkambal-wa:/ 'two kangaroos', /huga-wa:/ 'two stones', etc. (This is an apparent counterex. to the frequently-repeated claim that duals are more highly marked than plurals and that an explicit dual marking presupposes explicit plural marking.) Whether or not Du /-a/ is present, the noun may take its usual NC infl suffix (§4.8), which for nonhumans does not mark number.

There is also no marking of plurality for nonhuman subject or object in the verb. However, a covert Sg/Pl opposition for nonhuman nouns is revealed by adding a modifying NAdj which obligatorily distinguishes Sg from Pl, like /wuru-wuru/ (§14). Only a few NAdj, however, reliably make this distinction. For the nonhuman nouns themselves (e.g., flora-fauna terms, names of implements, names of body parts), the number-marking is this:

<table>
<thead>
<tr>
<th>NAdj</th>
<th>Pl form</th>
<th>Pl meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>/'amugiga/</td>
<td>/'amugiga-ga/</td>
<td>'morning'</td>
</tr>
<tr>
<td>/adhara/</td>
<td>/adhara- 'dusk'</td>
<td></td>
</tr>
<tr>
<td>/muru/</td>
<td>/mu-mu/ 'pl./s. foot'</td>
<td></td>
</tr>
<tr>
<td>/ru:/</td>
<td>/ru:-ru:/ 'wooden seats in canoe'</td>
<td></td>
</tr>
</tbody>
</table>

A verb containing subject- or object-agreement for a dual nonhuman noun, however, disregards the dual marking.

For human nouns (leaving aside personal names, see §4.4, and kin terms, Chapter 5), number-marking is considerably more complex and rigorous. To begin with, except in preclative position, human singular nouns regularly take the vocalsuf fix /-yui/ or /-nyun/.
In the dual, this suffix is replaced by Du /-w2a:/, as with the nonhuman nouns. In both singular and dual forms, the Nmij prefix, if present, is M /na-/ or F /n2ara-/. On the other hand, in the plural we change this prefix to Pl /wara-/, if present, and the stem usually has a Pl marker as well—usually Initial Reduplication by rule P-2 (see §4.14) or prefix /mij-, occasionally some other Pl marker or else stem-suppletion.

The basic pattern is therefore this (for a masculine noun):

Human nouns: (na-)ROOT-yung

or (wara-)na-ROOT

(with /wara-/) or Pl /wara-/) as with human Pl markers, the most productive marker is reduplication (§4.14). As noted above, the reduplication may be omitted, particularly with the less frequently used nouns, though for some important nouns the reduplication is obligatory with plural reference (even for nonhumans). For those nouns which only sporadically reduplicate in the plural, NCinfl marking may be the most reliable number indicator (recall that human Pl /wara-/ is distinct from M /na-/ and F /n2ara-/, used with human Sg and Du numbers).

For some nouns, instead of a reduplicated Pl we get addition of prefix /mi-/ just before the root. The prefix is normally incompatible with reduplication (some nouns have either reduplication or /mi-/, but not both at the same time). The dubious exception to this is that /wirig/ 'small' and /mirig/ 'small' have human Pl forms /mij-burayung/ and /mi-bunayung/ or /mi-ba-wunayung/ or /mi-bunayung/, but not both at the same time. The dubious exception to this is that /wirig/ 'small' and /mirig/ 'small' have human Pl forms /mij-burayung/ and /mi-bunayung/ or /mi-ba-wunayung/ or /mi-bunayung/, but not both at the same time. The dubious exception to this is that /wirig/ 'small' and /mirig/ 'small' have human Pl forms /mij-burayung/ and /mi-bunayung/ or /mi-ba-wunayung/ or /mi-bunayung/, but not both at the same time.

A special case of human/nonhuman doublets is /mij/gunji2i/ 'young female dugong' and /mij/gunji2unu/ 'girl'. A parallel, but formally more complex, doublet is /aragun/ 'young male dugong' and /munagun/ 'uncircumcised boy'.

Turning to plurals, the most productive marker is reduplication (§4.14). As noted above, the reduplication may be omitted, particularly with the less frequently used nouns, though for some important nouns the reduplication is obligatory with plural reference (even for nonhumans). For those nouns which only sporadically reduplicate in the plural, NCinfl marking may be the most reliable number indicator (recall that human Pl /wara-/ is distinct from M /na-/ and F /n2ara-/, used with human Sg and Du numbers).

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which is commonly plural in sense and is normally replaced by a
verbs (§14.20).

This suffix is not otherwise used in Pl forms as noted at the end of the preceding section.

Suffix /-wlan/ serves as a PI marker for kin terms with first person propositus (Chapter 5). It can also be used with personal nouns (end of §4.4), and rarely with other nouns, in the sense 'X and big bunch'. The preceding noun form is always Sg, thus /na-wlan-gu-nun-gam/ 'the old man and his bunch' with HumSg ending.

As noted just above, suffix /-yun/ is added gratuitously to PI forms of /argi/ 'some (other)'. A similar gratuitous addition is /-yun-gal/ (normally the Relative case suffix, §4.30), often added to PI /yun-gu-nun-gal/ 'big (PI)', hence /gun-gu-nun-gal-in-nun/.

A variant /-yun-gal-in-nun/ without preduplication is also attested in the same PI usage. (Suffix /-yun/ is also added gratuitously to some compound NAdj forms with intensive sense, e.g., /-yirwu/ 'huge'.)

See also the morphemes discussed in the following section.

4.17 Multiple /-wara(G)-/, PI intensifier /-han/.

As we will see, in verbal morphology there are a number of productive and not-so-productive derivational prefixes which we may collectively refer to as Multiple, of which /-wara/- and /-waraG/- are the most common (§10.4).

In nominal morphology, much less use of Multiple markers is found, but /-wara/- and a variant /-waraG/- (the latter inducing Hardening P-18 in the following consonant) do occur with a few stems, immediately before the root (i.e., following WlPPI prefix if present). First, /-wara/- can occur with life-form agiological terms, in the sense 'lots of' or 'all sorts of'. Thus /nujia/ 'fish', /anai/-ra-nunjia/ 'all kinds of fish' (with ANA WlPPI prefix). Other nouns which can be used this way are /na/wlan/ 'small rays', /numodu/ 'bird, terrestrial game animal', and perhaps a few others. Ordinary fauna terms like /yanhui/ 'parrotfish' do not occur with the Multiple prefix.

A similar use of /-wara/- is found with /aluy-an/ 'all kinds of'. As the contextual meaning can be 'all over', as with NAdj denoting illnesses, /-wara-nu-ji:ji/ 'having sores/illness all over' (with /-nu-ji:ji/ by P-1), see also /buju/PPI 'having sores' and /ma/j/ 'healed' in dictionary. Multiple /-wara(G)/ is not much more than a general intensifier in such forms. It is also attested with some other NAdj, including /hara/ 'ripe, cooked', /aluy/PPI 'good', /wug/ 'left alone', /lumuyPPI 'long, tall', and /wagud/ 'strong, firm'. The minor variant /-wara/- is found in the case of /wug/, hence /-wara-guug/ instead of */-wara-wug/.

A somewhat different morpheme of roughly similar sense is the suffix (formally perhaps a postposition like /-wug/ 'still, only') /-han/-, becoming /-han/ by Hardening P-18 after stop or nasal. It is most common with /gur/ 'irima' 'large group (of people)' and /arawind/ 'many, much', and merely intensifies the plurality which is already expressed by these lexical items. It is also attested with /aluy-yap/- 'all kinds of', /ha:/ 'place, country', and /wara/-, 'people'.

Textual exx. of /-wara(G)/ and /-han/ are given in dictionary entries of the lexical items cited, and in TNT 23. Itp. is attested: /anai/-ra/-ra-wlan/ all sorts of fish'.

4.18 Case system: general.

The following suffixes are here classified as case markers:

- Nominative
- Allative-Dative
- Abative
- (Simple) Pergressive
- Retrospective Pergressive
- Purpose
- Locative
- Instrumental
- Originative
- Similative
- Relative

The suffixes beginning in /w, w, r y/ undergo Hardening P-18 after a stop or nasal, and therefore have surface allomorphs beginning with /s b d j/. Note that the two Pergressive endings are most clearly distinguishable in hardened forms, /-ba/ for the Simple Pergressive and /-ga/ for the Retrospective Pergressive.

Some combinations of more than one of these suffixes are possible. The sequence /-ala-wa/ is a compound case suffix, which however functions somewhat like a simple case ending; see §4.26.

The more important combinations involve Relative /-yun/ added to a full noun which already includes a case marker; see §4.30. On semantic grounds, it is possible that Similative /-yi/ 'like' might on occasion follow a full noun with another case ending, but all textual exx. have /-yi/ added directly to a noun lacking other case marking.

Many of these suffixes, though prototypically nominal case endings, are used with other word classes. Not surprisingly, most of them can be used with independent pronouns and demonstratives with essentially the same meaning. However, some important semantic skewings occur with personal pronouns and especially demonstrative
pronouns and adverbs. Moreover, some of these suffixes have special uses as clause subordinators (e.g., in the formation of temporal clauses of the type 'at the time when... ', 'while... ', or 'as soon as... ', see §4.36).

Case suffixes follow the noun stem (including Du /-wya/, HurSg /-w3/), they may in turn be followed by postpositions such as /-w.indiyun/ 'really, very' (§4.32).

Nominative /-/- is usually not indicated in transcriptions.

In following sections we go over the case categories one by one. The cases which express nuclear syntactic relations are the Nominative in /-/- (usual for subject and direct object), Allative-Dative /-w3w/ in its dative function (for indirect object), and Ablative /-wa:/ in its relatively uncommon subject-marking function. On these uses of /-w3/ and /-wa:/ see §4.22.

Some pairs of case suffixes whose semantic boundaries overlap to some extent, making a precise semantic analysis important, are these: a) Allative-Dative (in dative function) and Purposive; b) Locative and Pergressive; c) Ablative and Originative. The difference between the Simple Pergressive and Retrospective Pergressive is also interesting, in that it requires speakers to contextualise case marking within a specific type of temporal perspective. The semantics of Relative /-w?un/ is also tricky.

There are no passive or antipassive constructions in this language, so there is no special case category for 'denoted' nouns and no case-marking rearrangements for nouns which remain after another noun is denoted. The only (possible) exception is that transitive verbs have Reflexive and Reciprocal intransitive derivatives (the Reflexive type sometimes resembling the English agentless passive in meaning), while intransitives can be transitivity by the Causative suffix (see Chapter 10). However, since normal case-marking for intransitive subject, transitive subject, and direct object is Nominative /-/-, even if we recognise Reflexive and Causative as relation-changing processes, they have no immediate effect on case-marking.

Some special features of Nadv (adverbial nouns) regarding case marking were made in §4.3; remarks on place names (which usually avoid Locative /-w3/ ) are likewise given in §4.5.

4.19 Nominative /-/-.

The unmarked Nominative case form is the normal category for intransitive or transitive subject and transitive object; it is also the citation form, and the form of nominal subject (topic) and/or nominal predicate in nonverbal sentences. In these functions, the noun stem is preceded by the continuous form of the NCinfl prefix if nonhuman, by the (only) form of the NCinfl prefix if human; or (for either human or nonhuman nouns) the NCinfl prefix may be omitted. Basically, presence of the prefix indicates discourse definiteness, and absence of the prefix indicates newness or focus. However, in direct object function it is also possible for nonhuman nouns to use punctual NCinfl prefixes. For more details on these matters see §4.8, above. (Note that in negative contexts the NCinfl prefix is required and must be continuous.)

Some textual exx. from NMET are these: a) intransitive subject 1.1.3 ('blood'), 1.1.4 ('water'), and 1.4.5 ('snake'); b) transitive subject 1.6.4 ('dirty water'), 2.1.5 ('python'), and 12.7.4 ('wind'); c) transitive direct object 1.10.4 ('gute'), 3.5.3 ('Bush'), and 5.12.8 ('ground'). An ex. of a Nominative noun as subject (topic) of an adjectival (NAdv) predicate is 'eye' in 20.7.2. An ex. of a Nominative noun as adverbial predicate is the place name /a?alibi/ in 1.7.6 (with demonstrative pronoun as subject).

Hundred of other exx. of these functions occur in texts. A detailed list of textual occurrences of real direct objects with punctual form of NCinfl prefix was given in §4.8.

In that section we also noted that the unmarked "Nominative" form of nouns (i.e., a form with no nonzero case suffix) is often found as a kind of abbreviated form of a real case-marked noun. The omitted case suffix in this pseudo-Nominative form may be Allative-Dative, Locative, Pergressive, Ablative, Similative, Purposive, or Relative, and in these instances there is usually a hint of what is going on through the use of the punctual form of the NCinfl prefix (which is correlated with these case categories, except in negative contexts). Lists of exx. are given in §4.8. On the other hand, since Instrumental /-wir/ regularly takes zero instead of NCinfl prefix, if the case suffix is omitted the resulting form may lack this prefix, as in 50.1.4 ('paperbark'), 70.1.1 ('hook spear', 'knife') and 88.3.6/7 ('shovel spear', 'knife'); alternatively, when /-wir/ is dropped the resulting form may be treated morphologically like other Nominatives, with the (continuous) NCinfl prefix added, as in 105.2.3 ('wire spear', if Instrumental).

For place names see §4.5 and many adverbial nouns (NAdv, §4.3), the "Nominative" form is used as the regular adverbial case (hence instead of Locative for place names).

In sentences where a noun is closely juxtaposed to a modifying element such as a coreferential demonstrative pronoun, a nonzero case category applying to the entire NP might be marked (§5.2) on one of the words, often the modifying element. An ex. is /nu~la/-ga-w3u/ ma-wir/-un/ 'to/for that boy' (NMET 5.20.5).

For the occasional use of Ablative /-wa:/ for subject and of Allative-Dative /-w3w/ for direct or indirect object, see §4.22.

4.20 Allative-Dative /-w3w/; direct vs. indirect object.

This suffix becomes /-guy/ after stop or nasal; see Hardening P-18 (§3.19).

The Allative-Dative in allative sense is 'onto, into, to, in the direction of'. Except in negative contexts, it most commonly takes the punctual form of the NCinfl prefix for nonhumans, and the only form of this prefix for humans (for exx. see §4.8). The prefix is usually omitted with place names (§4.5). Many textual exx. are cited in the sections just mentioned.

In dative function, the suffix marks a noun which is already cross-referenced by a pronominal object marker in the verb (this is not true of allative uses), and corresponds semantically to dative or benefactive object in other languages.

Because case-marking of independent nouns does not always
correspond precisely to cross-referencing pronominals in verbs, some terminological problems should be mentioned here. From the viewpoint of verbal morphology, at most two NPs can be cross-referenced by pronominal prefixes. Intransitive verbs have a subject pronominal, transitive verbs have pronominals marking subject and object. However, the object in this sense may be either what we would consider (on other grounds) the direct or indirect (including Benefactive) object. If the sentence has a direct object but no indirect object, of course the object marked in the verb is the direct object. However, if the sentence has an indirect object (whether or not there is also a direct object), it is the indirect object which is marked as object in the verb.

For some verbs, like /'yi- '/ 'to give', an indirect object is part of the obligatory case frame. If the sentence has an indirect object (recipient), as in /'n'amawang-i/ 'I gave (something) to him'. There is no derivational affix between pronominal prefix and root. However, for many other verbs an indirect object is an optional addition (whether the verb would otherwise be transitive or intransitive). If an indirect object is present, the pronominal prefix in the verb marks this as the morphological object (bumping out a direct object, if present), but the fact that this is an indirect (not direct) object is overtly specified by adding Benefactive prefix /-aG-/ or /-wa:G-/ between pronominal prefix and verb root. Thus /'wara:-gana:wa:-/ 'they burned (it) for them' (NMET 55.4.1). See §10.2.

The morphological object in the verb is therefore related in a complex way to cases and grammatical relations of the non-subject NP's in the sentence. With regard to these independent NPs, we may define an object to be an object NP which normally appears in Nominative case, and indirect object as an object which normally appears in Allative-ATIVE case with suffix /-wluy/. However, it is understood that the indirect object must be cross-referenced in the verb (except possibly when tossed in as an afterthought).

As we have seen, the direct object need not be cross-referenced in the verb, since it is bumped out by an indirect object. We may also wish to consider as direct objects some NPs which appear part of the syntactic case frame of certain morphologically intransitive verbs, such as 'water' or the like as an object of the allative /-wluy/ or 'to drink'.

Unfortunately, relational categories like direct and indirect object are not always rigidly distinctive. For example, what we would normally consider direct objects occasionally adopt (as subject pronoun) morphological trappings of indirect objects. We will see (§4.22, below) instances of Allative-ATIVE /-wluy/ with such NPs (though this is not common), and we have already observed (§4.8) that in a minority of instances direct objects take punctual rather than continuous (nonhuman) NCinfl prefixes if the prefix is present in such textual occurrences, since place NPs are commonly given first in locative or allative contexts, then repeated in the Ablative form, which means that the latter tend to involve contextual definiteness.

Exx, involving other NPs include NMET 10.16.1 ('mud'), 13.20.2 ('sand'), 13.41.2 ('sandhill'). Exx, involving other NPs can often be glossed contextually 'from X's place, 'from the place where X is (or lives)'; 16.13.8, 47.3/1.2 (clan name), 168.1.2.

usually in Nominative form, but shows up in NMET 75.2.5 with Instrumental suffix /-miri/ (see §4.27, below). This suggests the possibility that for 'to give' this category may be thought of as a nonnuclear case (cf. English to furnish someone with), and that the apparent Nominative case of most textual occurrences is really an Instrumental with the case suffix omitted. Similar remarks might be made about the "direct object" (the liquid) with the formally intransitive verb 'to drink', and with similar verbs. Since there are no foolproof syntactic tests for distinguishing direct object from Instrumental NP (with case suffix omitted), we may have to recognise some ambiguities in the relational structure. See §15.9.

We conclude this section by mentioning textual exx. of the dative (indirect object) function of Allative-ATIVE /-wluy/. In NMET I have found three instances of Benefactive indirect objects with /-wluy/: 6.2.3 ('brolgas'), 40.10.2 ('tachelors'), and 79.1.3 ('his brother'). The verbs in these exx. are 'to steal from', 'to take for', and 'to seize from' (note that the Benefactive includes adverative senses translated with English from).

An ex. of an indirect object which is part of the obligatory case frame of a verb (hence does not take Benefactive derivational prefix in the verb) is 'boy' in NMET 80.1.6 ("to give name to"). It is also reasonable to regard 'emu' in 7.12.3 as an indirect object, the verb being 'to tell', 'to say [quotation] to'.

We conclude this section by mentioning textual exx. of the dative (indirect object) function of Allative-Dative /-wlala/.

This becomes /-gal/ after stop or nasal in other contexts. In the verb 'to drink', and with similar verbs.

The primary sense is 'from' in the literal, physical sense. There are many exx. involving place names in the myth texts in NMET. (As noted in §4.5, there is a tendency to use continuous NCinfl prefixes if the prefix is present in such textual occurrences, since place names are commonly given first in locative or allative contexts, then repeated in the Ablative form, which means that the latter tend to involve contextual definiteness.)

Exx, involving other NPs include NMET 10.16.1 ('mud'), 13.20.2 ('sand'), 13.41.2 ('sandhill'). Exx. involving other NPs can often be glossed contextually 'from X's place, 'from the place where X is (or lives)'; 16.13.8, 47.3/1.2 (clan name), 168.1.2.
Although the majority of instances of /-wlala/ are concerned with literal point of departure, there are also some more or less figurative extended uses. For example, in a context like 'My name is from a song' or 'They named me after my Fire', Ablative /-wlala/ is used: 80.2.4ff., 81.1.3/5, 82.1.4/5, 88.2.1ff.

Another use is with language names, as in 'He is speaking English' or 'He is speaking Nunggubuyu'. Here the construction involves an intransitive verb like /wa/-bi/- 'to speak', with the language name in the Ablative: 7.21.6, 9.1.1, 94.9.9, 165.35.1, 165.6.1. The Instrumental can also be used in this context.

Some other textual exx. showing semantic twists are 10.6.1, 17.7.5 ('through nose'), 59.8.2, 71.16.4, 79.1.4, 95.4.2, 115.6.1, 120.3.5. The occasional use of the Ablative meaning 'through' or 'along' (e.g., body part or material) is connected with the frequent use of demonstrative adverbs like /ya:-ji:-'li/ and /-wlala-waj/ with a Pergressive suffix (§4.26).

Suffix /-wlala/ can be used with verbs or some other predications as a temporal subordinator meaning 'after' (§16.6). Because of case-spreading, this suffix can be extended to a (semantically non-Ablative) nuclear NP in the temporal clause: 98.2.4. An ex. of this adverbial usage in which a NAdj is the predicate is 115.6.2. The Ablative suffix is occasionally used with the grammatical subject, as in the Ablative in the second occurrence (vs. Nominative in the first) of 'Emu' got-mad [and] hit Blue-Tongue-ALL!DAT'. If this reconstruction is correct, and if 'got-mad' is really a parenthetical insertion, it looks as though the Ablative (ABL) is here again being used to overtly mark subject, and Allative-Dative to overtly mark direct object, the complication being that we really have two clauses with the roles inverted. (Again, the verb 'hit' merely indicates nonhuman subject and object and would be ambiguous without some additional marking of case roles.)

In general, the data just presented indicate that the Ablative is occasionally used to specify transitive subject when there might otherwise be some confusion, so that sharp case contrasts are needed. As noted in §4.8, this special use of the Ablative usually involves zero prefix or continuous NCinfl prefix (typical of the Nomina­tive), rather than punc­tual NCinfl prefix (typical of true ablative uses of /-wlala/). Our data suggest, second, that Allative-Dative /-wlala/ can be used for direct object, again mainly in contexts requiring careful contrasts. Here, however, there seems to be real formal merger of direct and indirect object, since we seem to get NCinfl prefix in most instances of /-wlala/ with do object.
In other positions (i.e., following vowel or nonnasal sonorant), it would be possible in principle to keep them distinct by rigorous application of \( P-9 \), giving surface \(-\omega /\) (or \(-\omega /\) after \(/\)) for the Retrospective Pergressive. This would not work after \(/\), and even in the other environments I have found it difficult to keep the two apart phonologically. \( P-9 \) is an optional rule in any event. It is best to think of the two as tending to remain distinct after most vowels and nonnasal sonorants, but since the opposition is not grammatically essential there is no rigorous maintenance of the opposition in most contexts.

The distinction between \(-\omega /\) and \(-\omega /\) is one of perspective. Both have a basic pergressive meaning (cf. below), but \(-\omega /\) adds a retrospective nuance, roughly like that added in English by back, as in back at the ranch vs. simple at the ranch. That is, \(-\omega /\) implies an association of the location specified with some earlier situation, while \(-\omega /\) makes no such implication.

The opposition is kept in the uses of these case suffixes as temporal adverbial subordinators with verbs or other predicates: \(-\omega /\) means 'back when...'; \(-\omega /\) means 'when...'. Thus \(-\omega /\) is regular in such expressions as /\( \ambari-gaj \)/ 'back when I was a child (/\( \ambari/\))'. See §6.6.

With nouns, \(-\omega /\) is much more common than \(-\omega /\). Taking surface forms \(-ba/\) and \(-ga/\) as initial basis of comparison, in NMET I count 22 instances of \(-ba/\), excluding forms with place marking a series of stages (by extension, 'on one instance'. In the same corpus I count 7 instances of \(-ga/\) on the same basis. Both counts exclude uses as subordinators with adjectival predicates.

The exx. of \(-ga/\) bear the closest scrutiny. In 13.24.3 we seem to have a frozen adverbial construction. In 13.18.4 the \( 'what/\) was anticipating a place name (given immediately after) with \(-\omega /\); the context is 'the totemic being left rituals behind at (place)'. In 47.12.3 the noun is 'grey hair', here meaning 'old people', the context being 'young people' were not brought close to where the old people sat' (in the old days). In 97.2.2 \( 'ana-bush-gaj/\) with English loanword means 'back in the bush [pre-settlement] days'; contrast \(-ba/\) with the same stem, \( 'ana-bush-baj\) with English loanword means 'in the old days'). In 97.2.2 \( 'ana-bush-gaj/\) with English loanword means 'dog chased goanna lizard up into the tree' (not merely 'in the trees, in a zone defined by trees'). Similarly, in 166.8.4 we have 'along the edges', and in 37.4.6 we find 'it entered in the hole (burrow)'.

A common way of saying 'He is out hunting X' is to say, 'He went among the X' or the like, with a Pergressive form. Exx. are 28.16.2 \( 'a-gugu-waj/\) in 97.2.2 \( 'a-gugu-baj/\), and even in the other environments I have found it difficult to keep the two apart phonologically. \( P-9 \) is an optional rule in any event. It is best to think of the two as tending to remain distinct after most vowels and nonnasal sonorants, but since the opposition is not grammatically essential there is no rigorous maintenance of the opposition in most contexts.

The semantics of 'Pergressive' (leaving aside the temporal dimension) is somewhat tricky. Competing categories include the allative usage of the Allative-Dative, the Locative, and to some extent the Ablative (see also the Ablative–Pergressive combination discussed in §4.26, below).

Basically, Pergressive forms of a noun should be thought of as constituting a zone or field in which or through which some entity is located or in motion. Pergressive \( 'a-bush-baj/\) is therefore very common with nouns which denote ecological (topographic or vegetative) zones, or at least nouns which (like cypress trees) may characterise a zone even if their referents do not physically fill the zone. Some nouns which occur frequently with \(-\omega /\) are /\( 'ana-marya-waj/\), /\( 'ana-sam-baj/\), and \( 'ana-marya-waj/\), the context for \(-\omega /\) is 'it was...'. With a noun denoting a linear natural phenomenon, such as /\( 'tung-sengu/\), the suffix takes the sense 'road, path', the sense can be either 'in, through or simply 'alongside, by', so that the linear phenomenon is taken as defining a sphere of influence (as it were) somewhat larger than its own physical boundaries.

The zone may actually be rather lightly restricted in other cases. For example, the exx. of \( 'ana-sam-baj/\) in 97.2.2 \( 'a-gugu-baj/\) means 'dog chased goanna lizard up into the tree' (not merely 'in the trees, in a zone defined by trees'). Similarly, in 166.8.4 we have 'along the edges', and in 37.4.6 we find 'it entered in the hole (burrow)'.

In some contexts the Pergressive and Locative are more or less interchangeable, as in 'He was standing in the water' (Pergressive \( 'a-gugu-waj/\), Locative \( 'a-gugu-naj/\)). The Locative is not used, however, in the sense 'along' or 'through'. The choice between
Periphrastic and Allative-Dative when the context involves motion in or near a zone depends on whether the motion is conceptualised as beginning outside the zone and entering it (Allative-Dative), or as being entirely contained within the zone (Periphrastic).

As with other non-zero case suffixes, we should look out for the occasional instance, especially of /-\dy/ or /-\dy/, involving secondary case-spreading based on a subordinated predicate with the same suffix.

As noted in §4.8, the Periphrastic suffixes tend to co-occur with punctual rather than continuous NCinfl prefix for nonhuman nouns (excluding place names, negative contexts, etc.). However, since the continuous forms are associated with contextual definiteness, certain recurrent forms involving topographic zones which might be thought of as being inherently definite show a tendency to use continuous forms. Thus observe continuous prefix /mana-/7 times in NMET with /madhajag/ 'beach, coastal region' (98.7.2, 98.8.4, 98.9.4, 100.5.3, 105.2.4, 109.1.4, 166.24.1) vs. just 2 with prefix /ama-/ (punctual series) (113.9.3, 114.5.4).

4.24 Purposive /-\gan/.

This suffix is somewhat more common with verbs and other predicates, creating purposive clauses ('in order to...'), but does occur moderately often with nouns in similar senses. In 47.18.1/2 we have both Purposive nouns and a Purposive verb form as parallel complements of 'to fear', 'be afraid of'. The other textual exx. in NMET specify an object to which some implement, material, or activity will be applied. Giving somewhat simplified glosses material or activity will be applied. Giving somewhat simplified González, 1985.

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As with other non-zero case suffixes, we should look out for the occasional instance, especially of /-/duj/, involving secondary case-spreading based on a subordinated predicate with the same suffix.

As noted in §4.8, the Periphrastic suffixes tend to co-occur with punctual rather than continuous NCinfl prefix for nonhuman nouns (excluding place names, negative contexts, etc.). However, since the continuous forms are associated with contextual definiteness, certain recurrent forms involving topographic zones which might be thought of as being inherently definite show a tendency to use continuous forms. Thus observe continuous prefix /mana-/7 times in NMET with /madhajag/ 'beach, coastal region' (98.7.2, 98.8.4, 98.9.4, 100.5.3, 105.2.4, 109.1.4, 166.24.1) vs. just 2 with prefix /ama-/ (punctual series) (113.9.3, 114.5.4).

4.24 Purposive /-\gan/.

This suffix is somewhat more common with verbs and other predicates, creating purposive clauses ('in order to...'), but does occur moderately often with nouns in similar senses. In 47.18.1/2 we have both Purposive nouns and a Purposive verb form as parallel complements of 'to fear', 'be afraid of'. The other textual exx. in NMET specify an object to which some implement, material, or activity will be applied. Giving somewhat simplified glosses material or activity will be applied. Giving somewhat simplified González, 1985.
Some special meanings with /-ruj/ occur in connection with demonstratives; see §7.18.

With verbs, /-ruj/ either forms locative clauses ("at the place where..."), or relative clauses where the head noun happens to be locative in its own clause. In either case, a nuclear NP in the subordinated clause may show up with /-ruj/ by case-spreading. Also, some "simple" Locative nouns are possibly analysable as reflecting partial elision of such an underlying clause. Thus in 14.10.2/3, it may be that /yi-i:-laligiru:-ruj/ 'at the turtle, where the turtle was' should be thought of as the residue of a clause like 'where they had cut up the turtle' (in the context of this narration). See §16.6.

4.26 Ablative-Pergressive /-wala-waj/.

This is a special combination of Ablative /-wala/ and one of the Pergressive suffixes, though functioning semantically like a unit. The second element may be pronounced /-aj/, /-yaj/, or /-waj/ depending on the speaker.

The meaning is 'going along X', and implies considerable extent of motion. It is most common with certain specialised demonstrative formations to be discussed in Chapter 7, as in the high-frequency forms /-af-i:-la-yung-gala-waj/ 'all those' (in the context of the entire body), /-af-i:-la-yung-gala-waj-buj/ 'all those' (in the context of the entails of X by hand)'.

Some exx. are 'to cover X with Y' (13.9.4, 125.3.2), 'to decorate X with Y' (53.4.2), 'to paint or smear X with Y' (52.2.3, 150.1.1, 154.1.4, 170.4.3), 'to wrap X in Y' (71.4.7, 116.12.1, 116.12.4.5, 153.1.1), 'to tie X (up) with Y' (108.3.4), 'to coil X with Y' (31.3.3), 'to coast X in Y' (116.8.5, 117.2.2, 117.4.2, 125.14.0), 'to roast it [wrapped] in Y (paperbark, inside oven)' (217.2.3), 'to soak X in Y (dillybags)' (116.11.2), 'to dose X with Y' (183.2.1, 133.2.4), 'to mix X with Y' (123.4.2), 'to boil X in Y' (130.5.9), 'to burn X with Y [fire]' (17.3.6, 17.4.6, 17.6.3, 116.13.4), 'to pound X with Y' (121.2.4, 122.4.4, 126.2.3, 139.11.1), 'to scrape X with Y' (60.1.4), 'to crush X with Y' (114.3.4), 'to spear X with Y' (17.3.6, 17.4.6, 17.6.3, 116.13.4), 'to out X (up) with Y' (45.11.7, 104.4.3, 149.10.2, 149.2.2), 'to jab or stab X with Y' (125.3.6, 161.25.5), 'to slice X with Y' (125.7.2, 125.10.3.4). Note that in comparison with English, Nunggubuyu often uses the Instrumental rather than Locative when the action involves a container.

The verb /-wala/ 'to put X [dir. obj. in Y' can use either Instrumental (117.3.3) or Allative-Dative for Y.

Body parts are not often in Instrumental form, but /maE/ 'hand, fingers' is an exception; see 109.3.5 'to open up the entails of X by hand'.

In the exx. given above, the Instrumental sense is quite literal. In 137.12.6 we have 'to kill X with tree sp.' which might be thought of as nonliteral, but in Nunggubuyu thought it is probably best to consider this in a nearly literal sense. The Instrumental can be used for the 'direct object' of 'to give'. In 75.2.5 we have a Reciprocal verb, the passage being translated literally as 'They furnish each other with their backs' (i.e., 'They turn their backs to each other'). Note that 'furnish' rather than 'give' is syntactically the best translation in this instance.

The exx. we have been giving involve chiefly transitive verbs.

Instrumental nouns are also attested with intransitives, even leaving Reflexives/Reciprocals out. To begin with, there are some verbs which are morphologically intransitive, but which involve complex activities which might well have been expressed by a transitive verb: 'to collect-water in shell' (61.2.3, 63.2.1), 'to drug-fish with tree sp.' (107.1.2, i.e., stun fish in ponds with wood or bark of chemically potent tree), 'to make-sparks with firedrill' (166.16.1). In two instances, the Instrumental seems very close to the implied direct object of these formally intransitive verbs: 'to collect-water with saltwater' (119.4.5), 'to drink [medicine from] green plum tree' (218.11.5).

Other intransitive instances: 'to walk with walking-stick' (10.2.2, 40.2.2, but both exx. with 'to walk' missing), 'to go paddling in canoe' (29.3.2), 'to get warm with smoke' [from fire]
The remaining exx. in NMET of the Instrumental are problematic. In §4.4.1 we seem to have a false start (incomplete sentence). In 138.5.9 the syntax is also possibly distorted; perhaps we might repair it by using a Comitative verb form instead of Instrumental noun. In 156.4.1 a verb such as 'they make dye' seems to be missing. For the increasingly frequent use of creole English borrowing /gari X/ (with unmarked noun X) as an alternative to /x-mirr/ (and also as a new Comitative form), see Appendix A.

4.28 Originative /-mira:dhu/.

This is a rare case suffix meaning 'provided by', 'originating from', indicating the source of something. The only textual exx., in §54 p. 6 of texts in NMET with a noun is /mana-mabur-mira:dhu/ '(they made two-pronged spears from s rlng Ngandi).

4.29 Similative /-yi:/.

This suffix becomes /-yi:/ after stop or nasal by P-18. It means 'like X, similar to X'. It is customarily added as an appositive modifier to another noun, for example in isolation forms as a kind of gloss when mentioning an unfamiliar species. We should note that there is a particle /n-unYju/ (which can also be NAdj) of similar meaning. This particle and /-yi:/ may co-occur, giving a maximal phrase /n-unYju NGinf-X-yi:/ 'like X'. However, /n-unYju/ may be omitted, hence the simple form /NGinf-X-yi:/.' Or the /-yi:/ may be omitted, hence /n-unYju NGinf-X/.' However, /n-unYju/ also has some slightly different uses not shared by /-yi/., see §12.13.

There is also a NAdj /gubur/ which may follow a noun X, meaning 'exact likeness of X, splitting image of X. Only two textual occurrences in NMET are found (12.3.3, 155.3.7). A semantically similar stem is /-anbun-/, a compound initial or defective noun requiring NGder prefix (§4.9). There is also an uncommon NAdj /-dhaq1/ 'same (as before)'.

Similative /-yi:/ normally takes NAdj NGinf prefix (§4.8), whether or not preceded by particle /n-unYju/.

Exx. of /-yi/ are the following, with asterisks indicating co-occurrence of /n-unYju/:

- *62.2.4-6, *46.4.1, 71.30.2, 71.32.4, *86.1.3, 97.6.3, *112.6.3,
- *113.2.2, *113.6.3, 113.8.2, 120.1.2, 120.3.4, 121.1.3, *122.1.16,
- *123.6.2, 125.12.1, 125.12.2, *138.4.1, 138.5.6, 140.2.3.2,
- *140.4.1, 144.2.2, 155.3.6, 155.4.2, *156.2.2, 156.3.3/4, *162.22.4,
- and 166.12.5. In this list, exx. with human noun are 71.30.2 and 71.32.4. The context 'to taste like X' is found in 113.6.3, 113.8.1.

4.30 Relative /-ynayun/.

As expected, this suffix becomes /-jinyun/ after stop or nasal by Hardening P-18. A variant allomorph /-ynayun/ is used with personal pronouns (§6.2).

This suffix is one of the most important ones in the language. It is used with verbs and other predicates as a subordinator, forming Nunggubuyu parallels to English relative clauses but actually having a more extensive syntactic range (not requiring a coreferential head noun in the matrix clause). In relative clauses it is necessary to recognise a process by which /-ynayun/ is bumped out if a non-zero case category is copied onto the relativised verb from the head noun. See §15.4.

The meaning and behaviour of /-ynayun/ with nouns is rather similar. Frequently it functions as a genitive marker (i.e., semantically similar to a restrictive relative clause), but is bumped out if a non-zero case marker on the possessed noun is copied onto the possessor (Relative) noun. However, /-ynayun/ with nouns need not be interpreted in all cases as a genitive marker, as we will see.

Concerning the genitive reading of /-ynayun/, it is advisable to mention briefly other grammatical mechanisms which can correspond in part to genitive forms in other languages. The main point here is that many inalienable possessor-possessed phrases are handled in Nunggubuyu by other mechanisms. Thus, many whole-part relationships are expressed by noun-class harmony, in which terms for parts are put in derivatives with appropriate NGder prefixes as indicated in §6.9, above. This applies particularly to parts of plants and inanimate objects. With humans and many animals this procedure is not used, but it is still rare to see an overt possessor form with /-ynayun/. Instead of saying my foot hurts, for example, we usually get a Nunggubuyu form like 'I-hurt here [pointing to foot]' or a compound 'I-foot-hurt'. Another important type of inalienable is kin terms (Chapter 5), but with these nouns a special set of affixes is used to mark pronominal person of "possessor" (i.e., propositus), making separate expression of this NP unnecessary, and when the propositus is overtly mentioned it is usually in (formally) appositive form, in the same case category as the kin term. See §15.8.

Predicate genitives ('X in Y's', 'X belongs to Y') are regularly expressed by personal pronouns (not nouns) in predicate genitive form (oblique stem with suffix /-wi/ or /-wi/, see §6.5). Nouns with or without /-ynayun/ may be added as further specifications.
Before citing exx. of \(-\text{yin} \text{un}/\), we should make the further point that even in the genitive reading, the noun-class marking of the \(-\text{yin} \text{un}/\) (possessor) noun is that noun's own regular NC, rather than the NC of the possessed noun. Thus \(-\text{yin} \text{un}/\) will always be /a-/ and /ana-/ (with /a-/ and /ana-/ being ANA class markers), regardless of the NC of whatever other noun this may modify.

We now cite instances of \(-\text{yin} \text{un}/\) with nouns in the texts in NNET, broken down into subcategories. First, there is a sense 'about X, concerning X', 'the song about X', or 'to enquire about X'. This includes \(-\text{yin} \text{un}/\) forms given in isolation at the beginning of texts as quasi-titles to the text (we may supply an implicit 'story of'). Exx. are 7.16.1, 7.18.1/2, 13.1, 33.1.2, 34.8.5, 41.3.1, 71.4.2, 116.13.1/2, 137.1.5, 139.12.3, 141.1.3, 142.1.6, 146.1.1, 147.4.1, 161.12.1, 162.1.1, 164.1.1, 169.1.1 (perhaps also 57.1.2, 68.3.6, 73.8.1 and 113.1.2 and 168.1.4 and 168.4.3 (words, including proper names)).

The sense of \'be/a-\text{ngargu}\-\text{yin} \text{un}/\) is the possessor owner of a material substance or dwelling is found in 29.11.3/4 (dog), 36.5.4 (burrow), 119.8.5 and 119.8.5 (shan, land of where used in such contexts as 'to speak about X', 'characterised by X', or 'having the name of X'). Exx. are 30.5.1 (cutting implement), 41.12.3 (place or ghosts of Balamumu people), 47.21.4 (using/having dangerous words), 54.1.4 (man of MoMo or other kin category), 64.8.6 (tongue of animal, perhaps 90.1.3 (apparently needs emendations).

A number of exx. which can be glossed 'associated with X', 'having X' can be cited: 30.2.3 (boomerang used in Gunabibi [ritual], 43.10.5/6 (having gosses, "[then] being healed"), 47.17.4 (using/having dangerous words), 54.1.3 (man of tribal law), 55.6.4 (having painted ear down), 57.2.3 and 57.3.5 (place of forked sticks used in ritual), 59.6.3 and 59.10.6 (hunting method or game hunted with fires), 73.8.4 (bestowed one), 120.5.1 (having smoke), 128.1.3 (leg having sores), 131.3.1 and 136.5.4 and 132.11.4 and 133.2.5 and 139.7.1 (medicine for eyes/skull/spoon), 139.6.1 (medicine for sick people), 161.17.2 (children of school), perhaps 167.11.4 (unlear). Note that \(-\text{yin} \text{un}/\) sometimes corresponds to the function 'big' (Mo plural) most of the time (see dictionary entry for exx.).

The suffix is also added gratuitously to a noun like \(-\text{yin} \text{un}/\) /-wza/: (a form of /alala/ 'owner') and /-argu\-\text{yin} \text{un}/\ (this section, below). A similar locational sense is found in 71.1.4 and 71.2.1 (tribes of the interior). The sense of \'X clan or country' is found in 19.1.2 (totem of clan), 41.12.3 (place or ghosts of Balamumu people), 47.21.4 (ritual manager or country of MoMo or other kin category), 64.8.6 (totem of clan), 68.2.6 (song of clan), 157.13.1 (people of whatahacallpit place). See also §4.5 for exx. with place names.

The suffix /-wza/ is added to a noun form already containing a case suffix like Progressive /-\text{mo}/ (this section, below). A similar locational sense is found in 71.1.4 and 71.2.1 (tribes of the interior). The sense of \'X clan or country' is found in 19.1.2 (totem of clan), 41.12.3 (place or ghosts of Balamumu people), 47.21.4 (ritual manager or country of MoMo or other kin category), 64.8.6 (totem of clan), 68.2.6 (song of clan), 157.13.1 (people of whatahacallpit place). See also §4.5 for exx. with place names.

The noun here is usually the name of a ritual or song type, referring to the practise of bestowing personal names from ritual or clan songs.

A form of /-yin\-\text{yung}/, meaning effectively 'full (kinman)' in juxtaposition to a kin term connected with the body part, is found in 78.1.4 ('of the belly', specifying actual genealogical No instead of mere classificatory No). See also §5.10.

As mentioned earlier, many instances of whole/part relationship are handled by the \text{Mo}\text{der} derivation (§4.9). However, some terms for parts of objects, plants, or animals do not have this derivative, and for such body parts it is necessary to use \(-\text{yin} \text{un}/\) with the name of the source object or species. This construction is favoured with body parts which are commonly detached from the original object or species (e.g., animal bone used as cutting implements or for sorcery). Exx. are 30.5.1 (cutting off tongue of crocodile), 53.3.1-3 (decorative tooth of animals), 71.16.5/6 (paperback from tree spp.), 71.22.2/3 (shinbone of animal), 114.2.2 (roots of water lily), 114.4-5 (stem of water lily), 117.5-2.4 (edible portion of top or bottom of palm), 119.1.3 (edible fruits), 123.1.2 (edible gum of wattie), 125.6.1/2 (shoulder blade of kangaroo used as tool), 140.1.3 (nectar on flowers), 144.4.1ff. (flower of tree spp.), 166.11.2 (spike of ray), and 167.2.2 (blade of belly area?).

Parallel to English owner of X, where the possessed noun (not the possessor) takes genitive form, Nunggubuyu has constructions with a form of /alal/ 'owner' and a /-\text{yin} \text{un}/ form of the object possessed: 69.11.2/2 (owner of dog), 90.1.1 (owner emitted, period), 90.1.2 (apparently needs emendations). Occasionally, a verbal action is described with a noun like /wun\text{u}-\text{arl}/ 'flight' or the loanword trouble, and the agent may then appear in \(-\text{yin} \text{un}/\) form: 69.6.2, 89.1.8.

Occasionally, \(-\text{yin} \text{un}/\) is added more or less gratuitously to a noun like /\text{Mo}\text{der}/ 'plant' which indicates some small plant or shrub of season of year: 71.4.1 (daytime), 98.9.2 and 98.11.1 (rainy season), 125.15.3 (dusk).

The suffix is also added gratuitously to /\text{Mo}\text{der}/ 'plant' 'big' (Mo plural) most of the time (see dictionary entry for exx.).

This is similarly often added to compounds with /-\text{yin} \text{un}/ 'hug' and to some other multi-noun-like noun-\text{Mo}\text{der} compounds, as in /-\text{Mo}\text{der}+/a-\text{wala}/-\text{wala}-\text{gur}/ 'wide open hollow log' 52.2.3 and /ana-/\text{Mo}\text{der}+/ana-\text{maga}-\text{maga}.
Suffix /-yinun/ is also found in a moderate number of textual exx., gratuitously added to a NAdj or body-part noun. The NAdj exx. which we are talking about cannot be analysed as relative clauses since they show nominal NCinfl prefixes rather than verbal pronominal prefixes. The exx. listed below in some instances can also be thought of as instances of the preceding category (with multisyllabic compound NAdj, often with intensive sense: 47.7.1, 47.14.6, 68.2.3, 71.10.5, 73.8.3, 100.3.1, 112.2.4, 115.2.2, 116.12.2, 117.11.1-3, 120.5.2, 122.3.2, 122.4.3, 123.2.1/2, 123.3.2/3, 126.3.1/2, 143.3.6, 143.15.4, 156.2.3, 161.26.1, 165.1.8, 170.2.2.

Some NAdj which occur more than once in this form are /ning/ 'soft', /w-agawadawad/ 'strong, firm', /sharan/ 'ripe, cooked', and intensive /jarawigarti/ 'long, tall'. Body-part exx. include 120.5.2 (outer shell), 143.3.6 and 143.15.4 (fat), and 156.6.5 (back). It is difficult to differentiate direct addition of /-yinun/ in these exx. (and those of the preceding paragraph), but it seems to involve definiteness (cf. English the X one, with X some adjective), and is also favoured by intensiveness and multisyllabicity of the stem.

Unclear instances of /-yinun/, possibly reflecting broken syntax or loss of unintelligible material, are 116.12.4, 170.3.3.

Since /-yinun/ is very common in relative clauses, it may occasionally spread from a relativised verb to a nuclear NP in the relative clause; this may be going on in 112.5.5. However, many instances of /-yinun/ with nouns cited above may be increased by longer expressions involving a relative clause, and it is not always easy to differentiate direct addition of /-yinun/ from indirect addition due to case-spreading.

In addition to simple forms with /-yinun/ added to the noun stem, there are several exx. in which /-yinun/ is added to a noun which already has a nonzero case marker. The majority of these expressions indicate the typical habitat of some plant or other species, and involve Progressive /-wulala/ plus /-yinun/, forming /-wulala-yinun/; 110.12.2 (in habitat associated with another plant sp.), 116.12.3 (in freshwater habitat), 142.6.5 (in bushland), 166.24.1 (beach/coastal habitat). There are also a few exx. with Retrospective Progressive /-wulala/, indicating the association of something with tribal elders (now dead), hence with a former time period: 47.12.3, 47.12.4, 139.15.4. There is one textual exx. in NMET of Locative /-ruj/ followed by /-yinun/; 47.15.2 (people who are [in another country]). There are two exx. with /-wulala/ (Ablative), the whole expression indicating someone who comes from (lives in) a particular location: 47.20.4 (with place n.), 79.1.4/5 (from other country). [For semantically similar constructions see §4.32]. There are no textual exx. of Allative-Dative /-wulala-yinun/ after a noun stem, but there is one such exx. involving a personal pronoun: 139.15.6. Presumably a nominal counterpart is possible. I elicited one exx. with Similative /-yinun/; /a-ma~a-yi:-yinunYung/ (back). It is difficult to summarise the functions of /-yinun/.

In this section we introduce a somewhat heterogeneous set of suffixes which follow all other suffixes, are in some instances elements with sentential rather than single-constituent scope, and are here referred to as postpositions or postpositional suffixes. Some of them occur much more commonly with verbs, see §12.21.

With nouns, by far the most common is /-wulala/ 'still, only, nothing but'. Its most common use is with Nominative (or caseless) noun. In some usage, the NCinfl prefix slot is unfilled, except in negative contexts (there may be rare cases involving a NCinfl prefix, but no such exx. occur in NMET texts). The absence of this prefix is probably to be explained by the necessarily focal nature of a noun with this suffix. The textual exx. are 7.5 (place name), 8.4, 9.11.4, 10.10.3, 13.1, 15.1, 16.2.2, 18.16.4, 19.6.1, 29.7.3 (preceded by English only), 40.1.8 (with cardinal direction NAdv), 40.14.3, 41.13.3/4, 43.7.2, 45.3.3, 45.5.6, 45.10.3, 45.11.5, 50.2.5, 53.1.3, 57.1.4/5, 64.8.1, 71.27.5, 71.34.2/3, 72.13, 72.2.5, 73.8.2, 76.1.2, 85.1.7, 95.9.4, 109.3.2, 126.3.1/2, 132.6.1, 135.5.3, 137.6.1, 138.2.4. The suffix may follow other suffixes such as Husu~ /-yinun/ or /-wulala/ (H3.2). It may also follow a case suffix, though the number of exx. is not large (if we exclude Nominative /-wulala/). Retrospective Progressive /-wulala-yinun/; 13.24.3, Similative /-yulala-yinun/; 27.5.2, Locative /-ruj-yinun/; 37.2.3 and 115.5.5, Allative-Dative /-wulala-yinun/ 109.3.3, and Ablative-Progressive /-wulala-yinun/ 29.4.1 (and MT 3). Postposition /-wulala/ rarely co-occurs with another postposition, but we can cite /-wulala-maga/ in NMET 164.3.5. The suffix /-wulala/ is very common with verbs, where the sense 'still' is common, and thus is of course common with intrinsative predicate forms of NAdj, as in /ni-wulala-yinunYung/ 'He is still alive'. In general, /-wulala/ is logically related to the constituent it modifies if not the predicate, and may be thought of as modifying the entire clause when attached to the predicate.

The postposition /-maji/ is conditional and is usually added to the predicate, but can occasionally show up on a noun: 42.6.1, 62.1.7, 77.1.4, 83.1.2, 84.1.4, 103.2.5/6, and 165.1.2. In some exx. it may be that /-maji/ is added to the noun because this noun
is emphasised in the condition (‘if it is X that...’), but in other cases it seems that the noun is merely a convenient prop for a postposition which can be added to any suitable constituent in the conditional clause. The suffix often co-occurs with continuous NCinfl prefix. See §4.9.

Postposition /-muG/ 'really, very' is an intensifier which is logically bound to the constituent it modifies (noun, predicate, etc.). The exx. with nouns in NMET are 87.1.2, 98.3.6, 134.1.3, and 161.4.2. The continuous NCinfl prefix occurs in some of these exx. but not all of them.

The postposition /-NMARK/ is difficult to analyse semantically. One well-defined usage is as an obligatory suffix with present tense negation of predicative NAdj, co-occurring with negative element /wa=wa/ and with the S form of the intransitive pronominal prefix /ni=wiG/ 'he is alive', /wa=ri an=wiG-maga:/ 'he is not alive'; see §5.6. The suffix may also be added with nouns other than NAdj as negative predicates: /wa=ri an-u-gubulu-maga/ '(it is) not truth' (NMET 87.1.5, with a NCder form of /-u-gubulu/). However, /-maga:/ is also used in a looser and more problematic way in some types of conditionals, and occasionally as a reinforcer of backgrounded continuous verbs in some narrative contexts (§12.21). In such functions, /-maga:/ may occasionally be added to some constituent other than the predicate of the clause, and this may be happening in 37.4.6. As noted above, there is an ex. of the double postposition /-u-gubulu-/ (164.3.5).

The postposition /-ari/ is used with Evitative ('lest') verb forms. In the exx. I have, it is attached to the predicate, or (in a negative Evitative) to a negative particle (/yagi/); see §8.7. I have no exx. of /-agl/ directly added to a (nondirective) noun, but the combination is probably possible.


Leaving aside the uncommon abstractive (verbal noun) form in which /-G/ or /-aG/ is added to a verb (§14.16), there is a set of morphologically simple nouns which nonetheless seem to have senses similar to those of verbal nouns in other languages. Their basic inflectional morphology is that of ANA/G class nouns, but with affixes commonly omitted (in nonnegative contexts) such as with (other) adverbial nouns (§4.3). However, they often function as nonverbal predicates (or rather, as complete clauses since there are usually no other constituents). Commonly they are closely juxtaposed as a kind of apposition or specifier to another predicate.

The main ones are /wumGari/ 'right(ing)', /wumGumGari/ 'right(-lic) sexual affair', /wungali/ 'exchange, trade', /bari/ and /hargali/ 'walkabout, hike', /wuGyali/ 'public clan song', /wuGyali/ 'ritual performance', and /galGali/ 'fun, (a good time).

The set is not entirely homogeneous; for example, /hargali/ and /galGali/ occur in derivatives or as compound initials in ways which most of the others do not. For textual exx. see the dictionary entries.
shifts of case markers such as Locative /-ruj/ and Instrumental
/-miri/. Demonstrative adverbs, and cardinal-direction adverbs
(which are treated in the same chapter), each have various case-like
forms (Locative, Ablative, etc.), but the relevant affixes are
often unrelated to those used with nouns.

Several case suffixes are also used with verbs, either by
copying the case of the head noun onto the verb of the relative
clause, or as special clause subordinators (Progressive = 'while',
Ablative = 'after', etc.). See Chapter 16.

Postpositional suffixes ($§4.33$) occur with various word classes
and are especially common with verbs; see $§6.13$, $§7.30$, $§12.21$.

Some affixes which are not used with nouns are: a) various
suffixes with discourse functions used only with personal pronouns,
indicating contrastive focus and the like (Chapter 6); b) Centripetal
and other relative-motion markers used in demonstrative morphology
(Chapter 7). Concerning the case system, it should be emphasised
that nominal morphology does not systematically distinguish subject
from (direct) object, so pronominal prefixes in verbs are an
essential device for keeping case roles clear. Verbs also have
a Comitative derivational prefix /-anQji-/ which compensates for
the absence of nominal case-marking of this category. The frequent
use of Multiple derivational affixes in verbs, compared to their
severely limited use with nouns ($§4.17$), means that this category
is marked more clearly in verbs than in nouns; this is especially
important for nonhuman nouns, which have no SG/PL marking. Finally,
we observe that kin terms (Chapter 5) have various special affixal
forms (e.g., for marking pronominal person of propositus) which
are not used with the nouns dealt with in the present chapter.

Chapter 5

Kin terms

5.1 General.

A separate chapter is reserved for kin terms because of their
relatively substantial number of special morphological features.

The differences are essentially in stem-formation, including
number-marking and a type of NC der prefixation. Kin terms take the
same inflectional noun-class (NCinfl) suffixes used by other nouns
($§4.7$, $§4.8$) with minor variations in form due to specialised
phonological rules ($P$-34, $P$-35). They also take regular nominal
case suffixes ($§4.18$ff.) and postpositional suffixes ($§4.32$).

In this chapter we are therefore mainly concerned with stem
morphology. Paradigms for the various kin categories are presented.
In comparison with the preceding chapter, fewer textual cross­
references are given, since textual occurrences in NMMT are given
in dictionary entries.

The kinship system is classificatory, which means that every
Aboriginal person is in a specific kinship relationship to every
other Aboriginal, even if the precise genealogical connection is
not known. Thus each term like 'father' ('Fa') applies not only
to one's actual (i.e., presumed biological) father, but also by
simple extensions to father's brother (FaBr), by more complex
extensions to FaFaBrSo, and to many other persons including some
in lower generations and some noncollateral relatives. Abbreviations
used are Fa(ther), Br(other), Mo(ther), Si(sister), So(n), Da(ughter),
Ch(ild), Pa(rent), Hu(sband), Wi(fe), and Sb(Sibling).

Compounds like FaFaSi indicate relational products: father's
father's sister. The symbols $\alpha$ and $\gamma$ specify male and female,
respectively, and are used to distinguish, for example, $\alpha$o (man's
son) from $\gamma$o (woman's son).

One important structural feature of Nunggubuyu terminology is
that siblings call all other kinsmen by the same terms. In English
this is true of ascending kinsmen but not of descending kinsmen
(if X is the sibling of Y, the child of X is the nephew or niece
of Y). In Nunggubuyu this is true not only of ascending but also
of descending and "affinal" or "spouse" categories. Another impor-
shifts of case markers such as Locative /-ruj/ and Instrumental /-miri/. Demonstrative adverbs, and cardinal-direction adverbs (which are treated in the same chapter), each have various case-like forms (Locative, Ablative, etc.), but the relevant affixes are often unrelated to those used with nouns.

Several case suffixes are also used with verbs, either by copying the case of the head noun onto the verb of the relative clause, or as special clause subordinators (Progressive = 'while', Ablative = 'after', etc.). See Chapter 15.

Postpositional suffixes (§4.33) occur with various word classes and are especially common with verbs; see §6.13, §7.30, §12.21. Some affixes which are not used with nouns are: a) various suffixes with discourse functions used only with personal pronouns, indicating contrastive focus and the like (Chapter 6); b) Centripetal and other relative-motion markers used in demonstrative morphology (Chapter 7). Concerning the case system, it should be emphasised that nominal morphology does not systematically distinguish subject from (direct) object, so pronominal prefixes in verbs are an essential device for keeping case roles clear. Verbs also have a Comitative derivational prefix /-mn/ which compensates for the absence of nominal case-marking of this category. The frequent use of Multiple derivational affixes in verbs, compared to their severely limited use with nouns (§4.17), means that this category is marked more clearly in verbs than in nouns; this is especially important for nonhuman nouns, which have no 3g/Pl marking. Finally, we observe that kin terms (Chapter 5) have various special affixal forms (e.g., for marking pronominal person of propositus) which are not used with the nouns dealt with in the present chapter.

Chapter 5

Kin terms

5.1 General.

A separate chapter is reserved for kin terms because of their relatively substantial number of special morphological features.

The differences are essentially in stem-formation, including number-marking and a type of NC der prefixation. Kin terms take the same inflectional noun-class (NCinfl) suffixes used by other nouns (§4.7, §4.8), with minor variations in form due to specialised phonological rules (P-34, P-35). They also take regular nominal case suffixes (§4.18ff.) and postpositional suffixes (§4.32).

In this chapter we are therefore mainly concerned with stem morphology. Paradigms for the various kin categories are presented. In comparison with the preceding chapter, fewer textual cross-references are given, since textual occurrences in NMET are given in dictionary entries.

The kinship system is classificatory, which means that every Aboriginal person is in a specific kinship relationship to every other Aboriginal, even if the precise genealogical connection is not known. Thus each term like 'father' ('Fa') applies not only to one's actual (i.e., presumed biological) father, but also by simple extensions to father's brother (FaBr), by more complex extensions to FaFaBrBo, and to many other persons including some in lower generations and some noncollateral relatives. Abbreviations used are Fa(ther), Br(other), Mo(ther), Si(ster), So(n), Da(ughter), Ch(ild), Pa(rent), Hu(sband), Wi(fe), 080 (man's son) from 081 (woman's son).

One important structural feature of Nunggubuyu terminology is that siblings call all other kinsmen by the same terms. In English this is true of ascending kinsmen but not of descending kinsmen (if X is the sibling of Y, the child of X is the nephew or niece of Y). In Nunggubuyu this is true not only of ascending but also of descending and "affinal" or "spouse" categories. Another impor-
tant feature is that "affinal" and "spouse" kin categories are not a separate set or subset of the terminology. Rather, since choice of spouse (and hence of affines) is sharply delimited by the genealogical kinship system, terms for affines and spouses are identical to existing genealogical terms. Thus the term for 'MoMoBrDaDa' (and similar second cross-cousins) is also used for W1 (and anyone's BrWi), and the term for 'MoMoBrDa' is applied to the Mo of one's W1. Ordinarily, one marries "correctly" with the result that no change in preexisting applications of kin terms is needed. "Incorrect" marriages (there is actually a range of acceptability going from mildly incorrect to absolutely taboo), which have always occurred and which are more common nowadays under settlement conditions, normally result in a change in terminology so that 'MoMoBrDaDa' is applied to W1, with corresponding changes for certain important affines.

In an expression like 'Fa of X', we describe X (grammatically possessive in English) as the propositus (i.e., reference point), and X's father as the referent. This terminology is applicable to ordinary (linear) kin terms which define the referent in terms of his/her relationship to a given propositus. However, the language also has dyadic kin terms of the type 'a Fa-and-Ch pair' (§5.6), where we can only speak of referent1 and referent2 whose mutual relationship is specified (but whose relationship to any external propositus is unspecified).

The basic system of categories is indicated in Figure 5-1. The actual forms shown are Vocatives, equivalent to referential forms with 1st person propositus (in the latter function, 'my/our...'), NC1 prefixes and other nominal affixes may be present, often making distinctions between male/female referent which are not specified lexically. Referential forms with 2nd and with 3rd person propositus differ in form from the items shown in the figure. The 2nd and 3rd person forms usually display the same categorial oppositions of kin terms indicated in the figure, but there are some differences in terms for siblings and for second cross-cousins. Abbreviations used are: VO = Vocative, PROP1 = 1st person propositus, PROP2 = 2nd person propositus, PROP3 = 3rd person propositus.

The pronominal categories of propositus marked in the kin term are person only. PROP1 is for 'my/our...', PROP2 for 'your...', PROP3 for 'his/her/their...'. PROP includes exclusive as well as inclusive first person, and all persons include all numbers. Finer pronominal specification of propositus requires a modifying independent pronoun (usually in the same case as the kin term).

In Figure 5-1, kinsmen in the same generation linked by a horizontal line over them are siblings, and kinsmen linked by a horizontal line under them are (real or classificatory) spouses (equivalent to second cross cousins). Looked at in terms of patrilineal "lines," there are four, each with completely distinctive terminology. Collapsing of 2A and 2D generations occurs in terms within Ego's own patrilineal line. Omaha-type skewing of terms down through contiguous generations in a patriline occurs in Mo's and MoMo's lines (1A = 0 = 1D generations).
Aside from this Omaha-type skewing (which occurs also in some other nearby languages such as Marra and Anindilyakwa), the system is of the "Aranda type" as this term is used in Australian ethnography. The patrilineal moieties are called /yirija/ and /mandha:yun/ (see dictionary entry for forms; /mandha:yun/ is replaced in human Sg and Du by forms of the stem /miniyunya/). There are no named sections or subsections, though the Nunggubuyu are aware of subsections in neighboring groups. There are no named generation moieties like the harmonic/disharmonic generation-moieties in many Australian groups (note that the kinship terminology would not articulate with such a system well). On the other hand, it could be argued that Nunggubuyu does have a virtual semimoiety system in which each patrilineal moiety is divided into two distinct patrilineal divisions, as with Mara to the south. Not only does the kinship terminology conform to this pattern; in addition, the rituals are organised largely around a four-way grouping of clans into sets of "brother" clans. Some Nunggubuyu clan terms, especially /murunyamun/, can be applied to any "brother" clan of the focal Nunggubuyu clan(s) of this name, and thus function like Mara semimoiety terms. For more information on clan names and the like, see pp. 5-6 of NMET and pp. 327-29 of the dictionary.

There are no matrilineal moieties, semimoieties, or clans. Individual matrifiliative sequences (a woman X, her Da Y, and Y's Da Z) are important in defining specific marital claims (if a man A married X back two generations, A's SiDiGo has a specific right to claim Z, thus renewing the intermarriage pattern among these lines of women (including their brothers) every second generation. However, these concrete matrifiliative sequences are not expanded culturally into large-scale matrilineal moieties or clans.

An adult man of a clan C1 may be considered the /abal/ 'boss' of the clan, its rituals, and its estate (territory); the compound /hahalabal/ 'country-boss' is also used. He also has a special relationship called /junggayi/, conventionally glossed 'manager', to his Mo's clan C3; this involves specific ritual duties such as painting clan designs on dancers, but also a general overseeing of his Mo's clan of this name, and thus function like Mara semimoiety terms. For more information on clan names and the like, see pp. 5-6 of NMET and pp. 327-29 of the dictionary.

5.2 Stem morphology.

Table 5-1 below, gives the basic stem forms for each kin category.

Some recurrent features are these: a) prefix /-nY/ or less often /-wY/ as a characteristic marker of ROPP and ROPF forms; b) suffix /-yam/ or after nasal /-nYam/ distinguishing ROPP from unsuffixed ROPP in several forms; c) Dyadic forms commonly with a suffix like /-i/ or /-j/; d) PI prefix /mi-/ with Dyadic forms and with ROPP/ROPF forms; e) Some instances of male/female doublets with M /ni-/ vs. F /niga-/.

<table>
<thead>
<tr>
<th>Stem Form</th>
<th>5.1.1, 5.1.2</th>
</tr>
</thead>
</table>

Table 5-1

<table>
<thead>
<tr>
<th>Kin-Term Stems</th>
<th>Stem Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. FaFa</td>
<td>FaPa, FaPaSi, SSG</td>
</tr>
<tr>
<td>VOC/ROP1</td>
<td>/na-</td>
</tr>
<tr>
<td>ROPP</td>
<td>/a-nij/</td>
</tr>
<tr>
<td>ROPF</td>
<td>/a-niga-nj/ Pl: /mi-ja-niga-nj/</td>
</tr>
<tr>
<td>Dyadic</td>
<td>/a-nij/ Pl: /mi-ja-nij/</td>
</tr>
<tr>
<td>ii. FaFaBr</td>
<td></td>
</tr>
<tr>
<td>VOC/ROP1</td>
<td>/bab/ or less often /ga-ma-bab/</td>
</tr>
<tr>
<td>ROPP</td>
<td>/nI-namara/ Pl: /ni-nI-namara/</td>
</tr>
<tr>
<td>ROPF</td>
<td>/nI-nI-nara-yam/ Pl: /ni-nI-nara-yam/</td>
</tr>
<tr>
<td>Dyadic</td>
<td>/nI-nI-nara-yam/ Pl: /ni-nI-nara-yam/ or /ni-nI-nara-yam/ root /a-wamaj/ or /a-wamaj/ see rule P-12</td>
</tr>
<tr>
<td>iii. FaSi</td>
<td></td>
</tr>
<tr>
<td>VOC/ROP1</td>
<td>/nI-sunyam/</td>
</tr>
<tr>
<td>ROPP</td>
<td>/ni-sunyam/ Pl: /ni-ni-sunyam/</td>
</tr>
<tr>
<td>ROPF</td>
<td>/ni-sunyam/ Pl: /ni-ni-sunyam/</td>
</tr>
<tr>
<td>Dyadic</td>
<td>/nI-sunyam/ Pl: /ni-ni-sunyam/</td>
</tr>
<tr>
<td>iv. Br</td>
<td></td>
</tr>
<tr>
<td>VOC/ROP1</td>
<td>elder: /murunyam/ [prefix /na-/ by P-35] younger: /nI-nI-ni-yan/</td>
</tr>
<tr>
<td>ROPP</td>
<td>/ni-hari/ Pl: /ni-ni-hari/</td>
</tr>
<tr>
<td>ROPF</td>
<td>/ni-hari-yam/ Pl: /ni-ni-hari-yam/</td>
</tr>
<tr>
<td>Dyadic</td>
<td>/ni-nI-nI-nI-nI-yam/ ('Br and Br' or 'Br and Si') Pl: /ni-ni-nI-nI-nI-yam/</td>
</tr>
<tr>
<td>v. Si</td>
<td></td>
</tr>
<tr>
<td>VOC/ROP1</td>
<td>same as for 'Br' (above) [prefix /nI-/ by P-35]</td>
</tr>
<tr>
<td>ROPP</td>
<td>/nI-sunyam/ Pl: /nI-ni-sunyam/</td>
</tr>
<tr>
<td>ROPF</td>
<td>/nI-sunyam/ Pl: /nI-ni-sunyam/</td>
</tr>
<tr>
<td>Dyadic</td>
<td>/nI-sunyam/ Pl: /nI-ni-sunyam/</td>
</tr>
<tr>
<td>vi. No, BrSa</td>
<td></td>
</tr>
<tr>
<td>VOC/ROP1</td>
<td>/nI-gi/</td>
</tr>
<tr>
<td>ROPP</td>
<td>/ni-sunyam/ Pl: /ni-ni-sunyam/</td>
</tr>
<tr>
<td>ROPF</td>
<td>/ni-sunyam/ Pl: /ni-ni-sunyam/</td>
</tr>
<tr>
<td>Dyadic</td>
<td>same as for 'Pa' (above)</td>
</tr>
<tr>
<td>vii. Da, BrDa</td>
<td></td>
</tr>
<tr>
<td>VOC/ROP1</td>
<td>/nI-sunyam/ Pl: /nI-sunyam/</td>
</tr>
<tr>
<td>ROPP</td>
<td>/nI-sunyam/ Pl: /nI-ni-sunyam/</td>
</tr>
<tr>
<td>ROPF</td>
<td>/nI-sunyam/ Pl: /nI-ni-sunyam/</td>
</tr>
<tr>
<td>Dyadic</td>
<td>same as for 'Pa' (above)</td>
</tr>
</tbody>
</table>

Table 5-1

<table>
<thead>
<tr>
<th>Stem Form</th>
<th>5.1.1, 5.1.2</th>
</tr>
</thead>
</table>
B. Ego's Mo's patriline

i. MoFa, MoFaSi

<table>
<thead>
<tr>
<th>VOC/PROP</th>
<th></th>
<th>PROP 2</th>
<th>Dyadic</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoFa</td>
<td>/n'ayan/</td>
<td>/n'ayan/</td>
<td>/n'ayan-n_1/</td>
</tr>
<tr>
<td>MoFaSi</td>
<td>/n'ayan_Si/</td>
<td>/n'ayan_Si/</td>
<td>/n'ayan-n_1/</td>
</tr>
</tbody>
</table>

ii. Mo, MoBrDa, MoBrSoDa

<table>
<thead>
<tr>
<th>VOC/PROP</th>
<th></th>
<th>PROP 2</th>
<th>Dyadic</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ri_gan/</td>
<td>[inflected /n_i_ri_gan/, see P-35]</td>
<td>/ibi/</td>
<td>/mi-dag_ibi/</td>
</tr>
<tr>
<td>/ri_gan_un/</td>
<td>/ibi_un/</td>
<td>/mi-dag_ibi_un/</td>
<td>/mi-dagi_ibi/</td>
</tr>
</tbody>
</table>

C. Ego's MoMo's patriline

i. MoMo, MoMoBr

<table>
<thead>
<tr>
<th>VOC/PROP</th>
<th></th>
<th>PROP 2</th>
<th>Dyadic</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoMo</td>
<td>/ga_mu/</td>
<td>/ga_mu/</td>
<td>/ga_mu-n_1/</td>
</tr>
<tr>
<td>MoMoBr</td>
<td>/n_un_A_mu/</td>
<td>/n_un_A_mu/</td>
<td>/n_un_A_mu-n_1/</td>
</tr>
</tbody>
</table>

D. Ego's FaMo's patriline

i. FaMo, FaMoBr

<table>
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<tr>
<th>VOC/PROP</th>
<th></th>
<th>PROP 2</th>
<th>Dyadic</th>
</tr>
</thead>
<tbody>
<tr>
<td>FaMo</td>
<td>/n_a_Fa/</td>
<td>/n_a_Fa/</td>
<td>/n_a_Fa-n_1/</td>
</tr>
<tr>
<td>FaMoBr</td>
<td>/n_un_Fa_Br/</td>
<td>/n_un_Fa_Br/</td>
<td>/n_un_Fa_Br-n_1/</td>
</tr>
</tbody>
</table>

E. Ego's MoFa's patriline

v. MoFaCh, SiDaCh

<table>
<thead>
<tr>
<th>VOC/PROP</th>
<th></th>
<th>PROP 2</th>
<th>Dyadic</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoFaCh</td>
<td>/n_a_Mo/</td>
<td>/n_a_Mo/</td>
<td>/n_a_Mo-n_1/</td>
</tr>
<tr>
<td>SiDaCh</td>
<td>/n_un_Si/</td>
<td>/n_un_Si/</td>
<td>/n_un_Si-n_1/</td>
</tr>
</tbody>
</table>

vi. MoFaSiDaSo, Hu

<table>
<thead>
<tr>
<th>VOC/PROP</th>
<th></th>
<th>PROP 2</th>
<th>Dyadic</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoFaSi</td>
<td>/n_a_Mo/</td>
<td>/n_a_Mo/</td>
<td>/n_a_Mo-n_1/</td>
</tr>
<tr>
<td>Hu</td>
<td>/n_un_Hu/</td>
<td>/n_un_Hu/</td>
<td>/n_un_Hu-n_1/</td>
</tr>
</tbody>
</table>

vii. Mo, SiSo

<table>
<thead>
<tr>
<th>VOC/PROP</th>
<th></th>
<th>PROP 2</th>
<th>Dyadic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mo</td>
<td>/n_a_Mo/</td>
<td>/n_a_Mo/</td>
<td>/n_a_Mo-n_1/</td>
</tr>
<tr>
<td>SiSo</td>
<td>/n_un_Si/</td>
<td>/n_un_Si/</td>
<td>/n_un_Si-n_1/</td>
</tr>
</tbody>
</table>
Dual kin terms are of the type 'his two Fa-s', as opposed to Dyadic forms of the type 'his two Fa-s', which are treated separately in §5.6.) is between (i.e., following suffix /-yun/ or /-nYun/):

These exx. show M /niG-/ variant for 'WiMo(Br)').

Gender prefixes /niG-/ (once /ni-/ and /n̄æri-/), for M and F respectively, produce doublets in 'Br' vs. 'S1', 'g' vs. 'g#, 'gS' vs. 'gM', 'gQa' vs. 'gQa', and 'gQa' vs. 'gQa'. Usually, a part of the paradigm is affected, but 'SO' vs. 'Qa'. 'gQa' shows this opposition in all forms. It is possible that initial /ni-/ in /niG-w/ 'your Fa' and /niG-yarg/ (/niG-niG-yarg/) 'my our WiBr' (D.v1) is the same /niG-/ and that /n̄æri-/ in /n̄æriG-niG/ 'your FaS' is /n̄æriG/.

These gender prefixes resemble the regular M and F, gender prefixes /niG-/ and /n̄æriG-/ (/§4.7, §4.9). However, the M gender prefixes end in /g/, the effect of which is to harden a following consonant to a stop by P-16. In the kin terms, the M form is clearly /niG-/ or is at least consistent with it in most cases, but in /niG-w/ 'your Br' (not */niG-w/) and in /niG-niG/ 'your BrS'. On the other hand, the F form is always /n̄æri-/ in kin terms, hence such doublets as /n̄æriG-1/ → /n̄æriG-/ 'my our (Br)S' and /n̄æriG-w/ 'my our (Br)So' (see also Dyadic forms for 'Br' vs. 'S1', the VOC/PROP forms for 'gQoCh', and PROP forms for 'gQoCh'.)

A few remarks are in order concerning the phonology of F forms with prefix /m̄az-/ of PROP and MPROP kin terms. Before /nG-/ /m̄az-/- shows up as /ni-/ by rule P-26, and before /n/ it shows up as /m̄in-/ by P-26. By C.v1 ('MoMo') we find Dyadic /n̄æriG-w/ by P-26, and /n̄æriG-niG/ by P-26, suggesting that this root has two slightly distinct forms, the one with initial /n/ being used with the PL prefix.

Similar slight allomorphic variations in roots may help explain other aberrant PL forms of kin terms. A phonologically regular
5.6 Dyadic kin terms.

The Dyadic terms are given in Table 5-1 along with the simple (linear) kin terms. Some comments on the phonology and morphology of Dyadic terms were mixed in with the commentary on Table 5-1 in 
§5.4.

Although the Dyadic forms present, on the whole, an archaic and irregular aspect, it appears possible to identify a primary Dyadic suffix /-yij/, with variants /-nYij/ (often, and perhaps only, after nasal) and /-j/.

Exx. pointing to /-yij/ are /anggur-yij/ (C.i), /nganja-yij/ (C.i), most likely /alij-yij/ (D.iii) if from //alij-yij// (the root does not otherwise occur, and the Dyadic form might also be segmented as//alij-j//, and /nYawu-yij/ (A.iii, from /nYaw/). Exx. with /-nYij/ are /an-ga-nYij/ and variants (A.ii, /nYama-nYij/ and /nYama-yij/). In this case, the root does not otherwise occur and might be set up as//an-ga// (A.ii, root not otherwise occurring), /nYama// (D.ii, root not otherwise occurring), and /nYama-nYij/ (C.iv). The citations (e.g., "C.i"), of course, refer to entries in Table 5-1. The form /ga:gu// (D.v) could possibly be analysed as having an idiosyncratic ending /-yij/ if the sequence /ga:gu// is regarded as a nasalised variant of /ga:gu// in the same paradigm.

The several Dyadic forms (excluding those with unique, supple­ tive roots) have differing relationships to the V/O/PROP, PROP, and PROP, linear kin terms. In some cases the Dyadic form is closely related to the PROP, PROP forms and contains the prefix /-yij// which is connected with these categories: /a-muri-yij/ /ya-muri-yij/ /yam-yij/ /ya-muri-yij/.

In the paradigms of 'MoMo' (C.i in Table 5-1), Dyadic /anggur-yij/ (after PI prefix /-anggur-yij/) shows a stem form similar to /a-muri-yij/ (used in PROP, PROP, and the latter with further suffix /-yn// rather than to V/O/PROP, ga:gu/, but the Dyadic form lacks prefix /-yij/ (from /-yn//).
The Dyadic stems without further number marking have dual meaning (e.g., 'Fa and Ch pair'). With Pl prefix /mi-/ (surface variants /mi-/, /mijn-/) by phonological rules as described in §5.4, we get a Pl Dyadic form referring to three or more persons.

One topic which arises in connection with Dyadic kin terms is the choice of root, given that the dyad consists of two persons who often call each other by different kin terms (e.g., 'Fa and So'). This is not a problem in the case of self-reciprocal kin terms ('FaFa' = 'MoCh', etc.), but most terms are not self-reciprocal. For these categories, the structurally senior member of the dyad furnishes the root on which the Dyadic term is constructed, as in /rigi-j/ 'Mo and Ch', based on /rigan/ 'Mo' rather than on terms for 'Ch'. This specific notion of structural seniority does not depend on the actual relative age of the two referents, nor even on their relative generations. As shown in Figure 5-1, for example, persons called 'Mo' occur in the LA, 0, and 10 generations. Rather, structural seniority in the formation of Dyadic terms is based on telescoping all instances of a kinship category into a single prototypical dyadic relationship; in the case of 'Mo', the prototypical case is of course in the 1A generation, so and 1A 9.

The Dyadic terms are more common in the discourse (see /nganjal-yij/ NMET 76.1.2). Second, in some narratives where two protagonists are introduced and their kinship relationship specified, this is done not by a single Dyadic form, rather by juxtaposing two MOR linear kin terms. Thus in NUNG 10.2.1 we find /-winya-yunj/ 'his So' and then /-n-arara-yunj/ 'his Fa' juxtaposed; a Free English translation would be 'a boy and his Fa' (or 'a man and his So'), requiring that one referent be identified absolutely before the second can be identified relatively (i.e., by a kin term). In Nunggubuyu, it is unusual to identify both referents by kin terms, even though this means that the first kin term will have a propositional which has not yet appeared in the discourse. A third, somewhat uncommon, functional alternative to Dyadic terms is the use of a Reciprocal form of a kin-term verb (§5.12, below), e.g., /wukumuru-n-jja/ 'He/They (M) call each other "Bu".

The Pl Dyadic terms are even less common. As noted above, they require a minimum of three referents. Although there are several logical possibilities for such terms, in practice they are largely confined to cases like 'a father and his children' in which two or more persons are related in the same way to the same referent. It is conceivable that such a Pl Dyadic form might turn up in a more complex context of the type ‘two or more men [of arbitrary kinship relationships to each other] and their respective children’, but this is not the usual meaning and I have no such exx.

5.7 Bereavement terms and avoidance style.

Nunggubuyu is weak in bereavement kin terms of the type 'widow', 'widower', 'orphan', specifying the kinship status of living persons to someone who has died.

The term /na-wanja-gija/ (/ninthg /na-wanja-yunj/) can be used to mean 'widow' or 'widower', specifying the kinship status of living persons to someone who has died. However, it is also used, especially in the Pl /-nya-yunj/, to refer collectively to bereaved relatives of the deceased (e.g., in the context of mortuary activities, see NMET 52.6.5), and in this usage does not specify particular kinship relationships.

The term /nulinya/ 'orphan' indicates that the person's natural parents are both deceased. No term was recorded meaning 'a persons whose son/daughter has died' (terms of this sort occur, for example, in Mara), Some Australian languages, especially in the Cape York area, have still not elaborate systems of bereavement kin terms. There are no special formations of the sort 'my late Hu', in which the propositus is a living person and the referent is deceased. Ordinary kin terms can be used in this context. For non-kinship necronyms see §4.4.

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5.8 Markedness relations; choice of propositus.

The form shown in the paradigms of Table 5-1, as VOC/PROP, is occasionally extended to contexts which would normally call for
PROP 2 or PROP 3. This is especially the case when the propositus is separately specified (by independent pronoun or noun), so that
the kin term itself need not specify pronominal category of propositus.
Myth character Emu, impersonating the Mo of Little Boy, tells him

Note that here the VOC/PROP form /baba/ is used instead of the
PROP 2, form /ni-nara/ ('you') Fa.

Something similar occurs in NNET 5.6.3/4. Here the female
myth character Eau, impersonating the Mo of Little Boy, tells him
'It's me, [your] Mo!'. The form for Mo is /nɔːri-rigan/ or /nɔːri-rigan-yun g /, the
PROP 2, form (including /nɔːri/ prefix) rather than the PROP 3 form
/ibila/. As this indicates, VOC/PROP, forms can be generalised to
PROP contexts when addressing a child, the adult essentially
adopting the child's perspective for kinship reference. For a
detailed study of this problem in another Australian language see
Merlan (1982).

There are also some suggestions from the forms of VOC/PROP, PROP 2, and PROP 3 terms that the former may be unmarked. Recall that
PROP 2 and PROP 3, in several paradigms, take a prefix /-(E)an g /-
which is absent from corresponding VOC/PROP, forms. Since PROP 2 is
characterised by a further suffix /-yun g /, often corresponding to
zero in PROP 3, we can rank the forms according to markedness values
as such:

least marked
VOC/PROP1 → PROP 2 → most marked
PROP 3

However, these markedness patterns are often obscured by suppletion
and other irregularities within paradigms.

5.9 Suffix sequence /-lhara-yun g /.

A problematic form /nɔːri-rigan-dhara-yun g / 'Mo' occurs in NNET
3.6.2/3 in a distinct version of the myth of Emu than the one just
mentioned (§5.8, above). This is based on /nɔːri-rigan/ 'Mo'
(VOC/PROP 2) with suffixes which should have the underlying form
/-hara-yun-g / (/dhara/ after nasal by P-18). As we have just
seen, the simpler form /nɔːri-rigan/ is used in precisely the same
situation in the other version of the myth (text 5).

The suffix sequence /-lhara-yun g / (assuming this to be the
correct internal segmentation) was not recorded except in this text.
Its functions are unclear and it may be an archaicism.

5.10 Kinship subcategories; body-part metonyms.

Because the kin-term system is classificatory, each category like
'Mo' is applied by a given Ego to many persons. It is therefore
frequently necessary to distinguish focal from merely classificatory
referents of a given term. Since the basic kin terms do not do this,

table

<table>
<thead>
<tr>
<th>kin term</th>
<th>gloss</th>
<th>body-part and folk explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>/maq/</td>
<td>FaFa (S1)</td>
<td>/yanag/ 'forehead' [FaFa thinks about Ego, e.g., for ritual training]</td>
</tr>
<tr>
<td>/nulq/</td>
<td>Fa</td>
<td>/nala/ 'top of shoulder' [carrying on shoulder]</td>
</tr>
<tr>
<td>/ninya/</td>
<td>Pa</td>
<td>/nala/ 'hip' [Ego turns back to avoid relatives as sign of extreme respect]</td>
</tr>
<tr>
<td>/nuya/</td>
<td>Pa</td>
<td>/nula/ 'arm' [carrying in arms]</td>
</tr>
<tr>
<td>/rigan/</td>
<td>Mo</td>
<td>/dani/ 'guts, interior of belly' [i.e., Mo's womb]</td>
</tr>
<tr>
<td>/bat/</td>
<td>Mo</td>
<td>/varaga/ 'upper back' [Ego turns back to avoid relatives as sign of extreme respect]</td>
</tr>
<tr>
<td>/jorua/</td>
<td>MoMoBr</td>
<td>/sulb/ 'back' [carrying piggyback]</td>
</tr>
<tr>
<td></td>
<td>MoMoBr</td>
<td>/sab/ 'hip' [Ego sleeps hip-to-hip with Da of /angai/]</td>
</tr>
<tr>
<td>/jorua/</td>
<td>Mo</td>
<td>/sulb/ 'eye' [frequent seeing (?)]</td>
</tr>
</tbody>
</table>

Table 5-2

$5.8$ to $5.10$ (5.111)
that the system as presented to me by this speaker is a slightly skewed version of the system given me in much more detail by speakers of Dhual, which I have discussed elsewhere. For example, in the Dhual system (which shows up much more frequently in texts), 'shoulder' is associated with the avoidance category WiMo, alluding to eye aversion. Moreover, while Dhual shares the association between 'calf' and siblings, Dhual speakers have a more cogent explanation; younger sisters in particular are supposed to slash their calves in sympathy with an elder Br who is going through the painful operation of circumcision. Dhual and Nunggubuyu agree on 'shoulder' = 'Fa' and 'belly' = 'Mo', and also broadly agree in having some grandparental categories connected with the back, alluding to carrying piggyback. The Nunggubuyu usage of 'upper back' for MoMo and avoidance categories, though distinct from Dhual usage, is consistent with the Nunggubuyu expression to refer to avoidance behaviour (NMET 75.2.5), though the body-part term used in this passage is /janda/, not /waraga/.

Of the various body-part metonyms, the only one which seems to be in common usage is /darn/ 'guts, belly' for 'Mo/MoBr', as in NMET 78.1.4.

Other functionally similar devices are expressions involving the verbs /=lhama-/ '(man) to beget' and /=yaba-/ '(woman) to bear' (So/Da); and /=wina-/ 'woman', a relative clause like /namuhlama-n jin'ung-/ 'the one whom I begot', to specify that this is the actual offspring, not a merely classificatory 'So'. However, it should be noted that these verbs have a broader sense than is suggested by English 'beget' and 'bear'. First, the grammatical subject may be the opposite-sex sibling of the actual biological parent; a man may say /winyabun g/ 'I bore him' (i.e., 'He is my sister's child', or even 'He is the child of a close female relative of my patriline, such as my FaSi'). In other words, /=wina-/ can come close to being a general verb expressing the relationship between a person and his/her Mo's clan. Similarly, a woman can say /nanguhlama-n/ 'I begot him' (i.e., 'He is my Br's child', hence of my patriline). Second, the grammatical subject is often the primary waterhole or other focal place name, in the case of /=wina-/ hence the very common expression /nanguyabu:n/ 'It (place n.) bore me' (i.e., 'That place is my Mo's clan's centre'). To specify that two persons are full (not classificatory) siblings, instead of the body-part metonym the usual expression is /njärbuga n-ar-rigan/ (we have) one Mo' (and one can add a reciprocal expression like /wina:n jina-ya/ [They (MDU) sleep with [each other]] (MDU-Comitative-sleep-Present). Here 'sleep with' has a more literal meaning than in English; though of course implying sexual relations, it literally indicates that the two persons share a camp.

5.11 Nonhuman kin terms and compounds.

The texts show a number of instances of what is otherwise a VOC/PROP form of a kin term used with ANA NGFe prefix (punctual /-a/ or continuous /-ana/; §4.7). With /gaja:/ or /galjiga:/, which in neighbouring languages means 'married couple', it is used as compound initial in some verbal expressions relating to this concept (see dictionary entry). There are also some relevant verb forms involving compounds of /=yaba-/, see list under BIRTH-ORDER on p. 286 of the dictionary, and lexical entries mentioned there.

A special term /ayiya/ 'biological mother (of child)' is available but not in very common use (no textual examples) as an alternative to /yabuja:/ 'Mo' and related stem forms. It has no morphological features of kin terms.

We should also mention the generic term /algya/, /umag/ /algya-n UN/ 'kinsman, relative', and less common roots /milg/ and /gali/ with similar meanings (see dictionary entries). The noun /ma:lg/, which in neighbouring languages means 'second-born or later'. There are also some relevant verb forms involving compounds of /=yaba-/, see list under BIRTH-ORDER on p. 286 of the dictionary, and lexical entries mentioned there.

Forms involving a derivational suffix /-a-nil/ (see §14.22) added to a noun may also imply that the two persons designated are a married couple. See also the verb /gulgu-wa-/ 'to marry' discussed below (§5.12).

'Elder' vs. 'younger' subcategories are already distinguished lexically for siblings: /muruyun/ 'elder Br' vs. /murun/ 'younger Br'. However, suppletive PROPs and PROPs stems for Br categories neutralise this opposition, though they add a gender opposition; there is also some fuzziness in usage of /muruyun/ and /murun/ with the latter tending to become specialised as an affective Diminutive form. For other categories, notably offspring, and in PROPs/PROPs forms for Br categories, the kin term does not indicate relative 'age', so recourse is had to a special set of Madj (non-kin terms) including /malarja:/ 'elder' and /yabaja:/ 'second-born or later'. There are also some relevant verb forms involving compounds of /=yaba-n/, see list under BIRTH-ORDER on p. 286 of the dictionary, and lexical entries mentioned there.

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put the NC der prefix directly in front of it (of course, a NC infl prefix for the derived noun class may be added as well). The sense of the nonhuman kin term may be more or less literal (e.g., mother kangaroo and her joey), or may be metaphorical. This is clearly metaphorical.

The form of the nonhuman kin term may be more or less literal (e.g., kangaroo/wallaby spp.) and smaller ones identified by a non-kinship derivative with the same NC der prefix /maG-/. This is obviously another metaphorical usage. On the other hand, in 101.3.5 we find /ni-bibi-yun/ 'mo' referring to the jungle-fowl bird (/jathaga/ (NA class).

Aside from these textual exx., there is a distinction between /ma-nari-ma£a-yun/ 'yu' and /ma-bibi-yun/ 'mo' (both MANA class), and smaller ones identified by a non-kinship derivative as initial and a kin term as final. In 116.8.2, a passage concerning cycad nuts, a distinct division is made between large nuts called /ma-bibi-yun/ 'Mo' (MANA class), and smaller ones identified by a non-kinship derivative with the same NC der prefix /maG-/. This is clearly metaphorical.

We have briefly mentioned some verbs related to kinship in §5.10 (e.g., 'to beget', 'to bear'). In this section we deal with derived verbs based directly on kin terms. The forms attested involve the VOC/PROP stem, suffix /-w.a-/ (elsewhere factitive suffix, §10.9), and regular transitive inflection. It seems that we should interpret the VOC/PROP stem here as specifically vocative, hence meaning something like 'X(subject) calls Y[direct object] "K[kin category]".'

An ex. is /muruyung-ga/ (with /v/→ /g/ by P-18) 'to call Y[direct object] "Father"'. Here the subject X is the younger brother and Y is his elder brother. Similar forms can be derived from the other VOC kin terms.

The form /gulgu-va/, using the stem for (actual or potential) spouse, can mean 'to marry' (as in 'I married her'). In addition to the transitive forms shown above, we have reciprocal derivatives thereof. Thus /gulgu-va-nji/ 'to marry each other, get married'. This ex. is no problem since /gulgu/ is a self-reciprocal kin term. With non-self-reciprocal kin pairs, the reciprocal can still be formed: /muruyung-ga-nji/ '(X and Y) to be brothers' (lit., 'to be elder brothers of each other'). Note that a literal translation with English reciprocals may be illogical.

Such kinship verbs with /-w.a-/ do not have high text frequency. It is more usual to use longer statements of kinship relationships involving simple kin terms. Thus 'He is my Fa' can be simply expressed by a sentence like this:

\[(5.1v)\] na-baba nu-'ba-gi-yun/e

my/our Fa' that one (Msg)

'That (man) is my Fa'

It is worth noting that in /u-ni-n'ara-yun/ and in /ma-n'ari-ma£a-yun/, the NC der prefix /-a/ or /maG-/ (§4.7) has been added to a stem which already includes a gender-marking derivational prefix /miG-/ or /n'ari-/ which closely resembles the corresponding NC der prefix. That such double derivatives exist, however, indicates that the M /miG-/ and F /n'ariG-/ with kin terms are morphologically distinct from the regular NC der prefixes, including M /miG-/ and F /n'ariG/-.

Although our data are limited, all of the forms cited are formally consistent, being the regular PROP stem with an additional regular NC der prefix. Although a kinship category like 'MoMoBrDa' would be most unlikely in connection with nonhuman species or implements, it would be presumably possible to produce appropriate outputs by applying the same patterns already seen.

We briefly mention noun-noun compounds with /-wla-/ 'country' as initial and a kin term as final. In addition to /halal-mu$m$/ 'country (or countries) of my FaMo's clan' (NMET 157.11.4, from /mu$m$/ 'my/our FaMo'), I elicited /halal-igan/ 'country of my Mo's clan' (§5.10.2), see rule P-25). There forms are based on PROP kin terms, but forms based on PROP and PROP are possible (though not attested in the texts), e.g., /halal-ibi-yun/ 'country of his/her/their Mo's clan'.

On compounds generally see Chapter 14.

§5.12 Kinship verbs.

We have briefly mentioned some verbs related to kinship in §5.10 (e.g., 'to beget', 'to bear'). In this section we deal with derived
Chapter 6

Personal pronouns

6.1 General.

In this chapter we discuss independent personal pronouns. For demonstrative pronouns see Chapter 7. For intransitive and transitive pronominal prefixes used with verbs and some other predicates, see Chapter 9. For affixes specifying pronominal person of propositus with kin terms, see Chapter 5.

Pronominal categories include NC (noun-class) markers; see §4.7 for the forms of NC prefixes with nouns.

Personal pronouns are clearly distinct formally from other stem classes. They differ from nouns in having NC and other pronominal categories built into the stem, and (thus) in avoiding the NC infl prefixes used with nouns (§4.8). There are thus no punctual and continuous forms of nonhuman personal pronouns, and no possibility of omitting pronominal markers. The actual NC and other morphemes which can be identified in pronouns differ significantly from any found in nouns; for example, in the pronouns we find suffixes like MDu /-nil/, FDu /-mD/ and PI /-ru/, which have no counterparts in nominal morphology. However, pronouns do resemble nouns in taking case suffixes and postpositions.

Personal pronouns are also clearly distinct from demonstrative pronouns. The two stem classes do share some features, such as the MDu and other suffixes just mentioned. However, demonstrative pronouns have NC infl prefixes of roughly the same type as nouns (not personal pronouns), and also have many other special features such as a set of motion suffixes including a high-frequency Centripetal ending (not used in personal pronouns). See Chapter 7.

Person categories are lEx (first exclusive), lIn (first inclusive, including both speaker and addressee), 2nd, and 3rd. In lEx and 2nd the cross-cutting categories are $g$ (gender not specified), MDu, FDu, and (3+) PI (gender unspecified). MDu is used for mixed gender (one male and one female). MDu is used for one male human and one nonhuman; FDu for one female human and one nonhuman. For lIn person, we have Du (gender unspecified), optional MDu and FI (trial) categories, and (3+) PI (gender unspecified).
In the 3rd person we have the same categories marked by NC prefixes in nouns. For humans we thus have MSg, MDu, MSf, FDu, and (3+) Pl. For nonhumans we have the NA, N2ARA, ANA, MANA, and WARA noun classes. There is no difference between ANAdu and ANAd subclasses in personal pronouns.

Within these 3rd person pronouns, the following formal neutralisations occur:

- MSg = NA
- MSf = N2ARA
- Pl = WARA = ANA

These are basically the same neutralisations found in the NC der prefix system used with nouns (§4.7). Except for ANA, these neutralisations also occur with the NC inf1 prefix system with nouns. Similar but slightly different syncretisms occur in the pronominal prefix system (Chapter 9). MSg and NA can be regarded as cryptotypically distinct, since the two only NA can refer to two or more entities; the same is true of N2ARA as opposed to MSg. Likewise, Pl must refer to at least three entities (including at least one human), while WARA and ANA do not specify actual number.

The nonhuman NC forms have no way of expressing number in the independent pronouns. Specifically, Du suffix /-w 2 a:/ and other number-markers used with nouns are inapplicable, except for lInDu. There are no plural or collective reduplications.

A good part of this chapter is spent in simply describing the forms taken by the pronouns. However, it will soon become clear that the pronouns have some unique forms with special functions requiring extended commentary. Specifically, while the pronouns have roughly the same case forms that nouns have, they also have a specifically predicate genitive form (§6.5), and a number of vitally important forms with discourse-regulating functions centring around various kinds of focusing (§6.8ff.). These forms and functions must be understood in order to analyse texts.

6.2 Stem forms.

In Table 6-1, below, we present the following forms: Nominative (zero case form), unsuffixed Oblique, presuffixed Oblique stem, and Relative (including possessive) form. Where available, one textual citation (from NMET unless otherwise specified) is given for each form. For MSg/NA, MSf/N2ARA, and Pl/WARA/ANA, we give two or three citations for the Nominative form only, showing the respective noun-class variation. Although some forms in the table are not validated by textual citations, they are quite certain (from multiple elicitation).

It is evident that the Nominative has zero case marker. In the Oblique, the Sg (and lInDu) variant, which is morphologically like the other singulars has suffix /-wi/- whether or not there is a following suffix. The remaining pronouns, all of which end in MDu /-m/1, FDu /-m/1, or Pl /-ru/ (note that even the MANA form ends in /-ru/), have a long /a/ in the unsuffixed Oblique but long /i/ in the presuffixed Oblique. We can represent this by suffix /-a/- and suffix /-i/-, respectively, specifying in rule R-38 that the

<table>
<thead>
<tr>
<th>Table 6-1</th>
<th>§6.2</th>
<th>243</th>
</tr>
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<tbody>
<tr>
<td>TABLE 6-1</td>
<td>Nom</td>
<td>Relative</td>
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<td>Personal Pronouns</td>
<td>unsuffixed Oblique</td>
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<td>n*aya-ru-</td>
</tr>
<tr>
<td>N/A</td>
<td>n*aya</td>
<td>n*aya-wi-</td>
</tr>
<tr>
<td>N/A</td>
<td>n*aya-wi-</td>
<td>n*aya-ru-</td>
</tr>
</tbody>
</table>
quality of the final vowel is that of the contracted long vowel on the surface (e.g., /nu-ga-\text{w}/ \rightarrow /nu-gu-ga/-/). The Relative suffix with pronouns is clearly /-\text{g}i\text{-}/, rather than /-\text{y}i\text{-}/ (the latter is the form with nouns and verbs). In the Sg (and l1DuN) the suffix is added to the Oblique suffix /-\text{w}/. In the other forms we get MDu /-\text{ni-}/, FDu /-\text{ni-}/, and Pl /-\text{ri-}/. These last combinations are difficult to analyse morphologically. By analogy to the Sg forms we should expect /-\text{n}i\text{-}/ to be added to the Oblique stems, giving incorrect */-\text{gi:-}/ and so forth, with long /\text{i}/. This is a possibility, but requires additional a hoc phonological rules shortening a long vowel before /-\text{n}i\text{-}/. Such an analysis was presupposed in NMET, where the surface forms were transcribed as /-\text{mu-gu-}/, "yours(\text{MDu})/ and so forth, where /-\text{i}/ implies the existence of an underlying morpheme consisting of a vowel which is absorbed by the preceding vowel by contraction (P-49) and then somehow shortened. However, such an analysis based largely on analogy with Sg forms, while perhaps correct historically, is synchronically dubious, and it is also possible to generate the surface forms like /-\text{ni-}\text{n}i\text{-}/ by assuming that the Oblique /-\text{ni-}/ morpheme is not present. This gives MDu /-\text{ni-}\text{n}i\text{-}/ and FDu /-\text{ni-}\text{n}i\text{-}/. However, Pl /-\text{ri-}\text{n}i\text{-}/ does require a rule changing /-\text{ru-}/ to /-\text{ri-}/ in this combination; we account for this by allowing the sporadic rule V-Fronting P-50 to apply here. Leaving aside the Oblique and other suffixes, we can identify the following as recurrent morphemes: MDu /-\text{ni-}/, FDu /-\text{ni-}/, Pl (also WARA, ANA, MANA) /-\text{na-}/, Sg stem-formative /-\text{gu-}/, Du/Pl stem-formative /-\text{gu-}/, 1Ex nonsingular (1EXNonsg) /-\text{na-}/; 1In nonfinal (11NOnf) /-\text{nu-}/ 2nd /-\text{w}/; 3rd nonsingular (3Nonsg) [also WARA/ANA] /-\text{na-}/. The Sg stem-formative /-\text{ga-}/ is not used in the Sg forms, even though one might argue that Sg /-\text{ya}/ consists of Sg /-\text{g}a-\text{-}/ (as in nominal prefixes with verbs) and stem-formative /-\text{ya}/. In the Sg Nominaive /-\text{na-}/ we might detect /-\text{ga-}/, but the form is too irregular to analyse (this is not true of the other Sg forms). In l1Du Nominaive /-\text{ga-}/, we follow the regular nominal Du suffix /-\text{g}a-\text{-}/ (which is otherwise prohibited with personal pronouns), and one does so in the l1DuN with any suffix, whether marking case or discourse function). Du/Pl stem-formative /-\text{gu-}/ is found in l1n, 2nd, and 3rd but not LX persons. 1EXNonsg /-\text{gu-}/ acquires surface vowel quality by V-Assimilation P-9, hence /-\text{g}u\text{-}/ but /-\text{nu}/. The 3Nonsg morpheme always shows up as /-\text{gu-}/, but since it is always followed by /-\text{gu-}/ we might set it up as /-\text{w}/ (cf. /\text{w}/ with variable surface vowel as a component morpheme in pronominal prefixes, Chapter 9). The 2nd person marker always shows up as /-\text{nu}/ (if we exclude the Nominaive Sg /-\text{nu-}/). However, it would be phonologically possible to extend to these pronouns an analysis of 2nd person prefixes worked out in Chapter 9 for the pronominal prefixes used with verbs, distinguishing 2Sg /-\text{nu-}/ from 2Nonsg form /-\text{nu-}/ which normally acquires surface vowel quality by V-Assimilation (but for which a base form /-\text{nu-}/ is recoverable on the basis of certain 2Pl object combinations). If so, the convergence of Sg and 2Nonsg morphemes as /-\text{nu-}/ in the personal pronouns is secondary, reflecting the fact that the 2Nonsg morpheme happens to occur before stem-formative /-\text{gu-}/ in the relevant combinations.

Note that 1LNNonsg /-\text{na-}/ does not assimilate vowel quality in independent pronouns, though the corresponding morpheme does assimilate in pronominal prefixes used with verbs.

Remaining morphemes are Sg /-\text{ya}/ (no clear internal segmentation), and the prefixes related to noun classes: MSg/NA /-\text{ni-}/, FSg/NsARA /-\text{ni-}/, PI/WARA/ANA /-\text{wu-}/, and MANA /-\text{ma-}/. PI /-\text{ru-}/ can also be analysed as /-\text{nu-g}u\text{-}/ with F /-\text{ni-}/ (cf. 3PSg, intransitive pronominal prefix /-\text{p}i\text{-}/) and a Nonsg morpheme /-\text{ru-}/ (cf. Nonsg or Pl morphemes of type /-\text{ru-}/ elsewhere). If we adopt this synchronically, it suggests a parallel analysis of MDu /-\text{ni-}/ as /-\text{nu-g}u\text{-}/, cf. 3Sg/6s intrasigantive prefix /-\text{ni-}/. The contraction of /-\text{ru-}/ to /\text{ru}/ is not a productive process in Nunggubuyu; for minor alternations of this type see discussion of ru-Contraction P-24.

The pronouns of Table 6-1 permit no additional prefixes. The presuffixal Oblique stems occur with following case suffixes. The discourse-function prefix forms involve a distinct set of suffixes attached to the Nominaive stem, except for minor irregularities. These are: a) Sg uses /mu-ga-\text{-}/ before all suffixes, including discourse-function ones, instead of regular Nominaive /-\text{g}a-\text{-}/; b) Du suffix /-\text{ga}/, in 1Du /-\text{ga-wa}/ is dropped before any suffix, hence /-\text{ga-}/ as stem for discourse-function suffixes; c) 1Ex Contrastive form, which would regularly show up as /-\text{ya}-\text{-}/, "as for me", undergoes a minor haplological contraction to /\text{ya}-\text{-}/. The various complete pronoun words, including the Nominaive, may be followed by postpositional suffixes like /-\text{w}ugj/ "still, only" (§6.13).

6.3 Uses of Nominaive pronouns.

The most common use of simple Nominaive pronouns is as slightly weakened forms of the Contrastive pronouns in /-\text{ay}un\text{-}/ (§6.8). That is, 3Sg/NA /-\text{ni-ga-}/ and /-\text{ni-ga-}/ are not always sharply distinguishable functionally, though the contrastive sense is less strong with /-\text{ni-ga-}/. For this reason, we discuss the Contrastive in /-\text{ay}un\text{-}/ along with functionally similar instances of simple Nominaives in §6.8 rather than here. We will anticipate this discussion by making one important point now: in contrastive sense, both the /-\text{ay}un\text{-}/ and Nominaive forms relate predominantly to (intransitive or transitive) subjects, though they can relate to
The /-ayun form, and presumably the Nominative in its contrastive sense, do not take overt nonzero case markers even when relating to non-Nominative cases.

In this section we deal with remaining functions of the Nominative, and thus with a fairly small proportion of actual textual occurrences.

First, Nominative pronouns may be used to specify the subject of a predicate which does not already specify pronominal category of subject. This is the case, for example, with the construction 'Who are you?', which consists of /yan?i-n-un?/ or /yan?i-n-un?/ 'who?' (or a Du or Pl form thereof) plus a 2nd person pronoun (in that order). The 'who?' word by itself cannot agree with subject directly. An ex. is this:

(6.1) yan?i-yan?i mu-nu-ru 'Who are you(pl) '"
Rdp-who you(pl) NMET 18.12.2 and 18.13.5/6

See also 20.11.3 and 20.12.4 (Du forms), and 20.15.4 (Sg).

Similarly, Nominative pronouns can be used as subjects of a demonstrative form predicating position, i.e., '[to be] here/there';

(6.11) n?aya yai-ni 'I am here'
I this(ANA)

While many "nonverbal" predicates really involve a predicative NAdj which has intransitive pronominal prefixes, sometimes the predicate is a nonadjectival noun (No) such as a flora/fauna term or a personal name. Since such predicates have no pronominal marking, a Nominative independent pronoun may be used:

(6.111) n?aya ndya-ur-urharg ana:-ni
I King brown snake this(ANA)
'I (here) am King Brown' (e.g., in myth)

However, most actual textual exx. involving similar contexts have constructions of the type '[it's] me, King Brown', where the pronoun is in the Emphatic form with suffix /-waj/ and the noun is omitted:

(6.1v) nu-ru yai:-ji-ji:-'la '... (and) we [were] on
we(Exp) (on) this side this side'

Infrequently, a Nominative pronoun is used as a predicate:

(6.v) naga=n a:-n?u-nu- 'So that's you!'
you(Sg) that(ANA)

However, the Emphatic form with /-waj/ is regular with such pronoun predicates, especially in answer to a 'who?' question.

In the exx. given above, we have been emphasising instances where the Nominative pronoun is the only way to express the pronominal category, thus filling a functional gap in the language. However, even leaving aside clear instances of the contrastive sense of Nominative pronouns, we cannot conclude that Nominative pronouns are restricted to syntactic contexts where no other pronominal marking is possible.

For example, 2nd person pronouns may be included (redundantly) in imperative clauses (which are formally identical to future assertions); see NMET 20.20.7 and

(6.vi) naga=n da-ju- 'ba-bur?' 'You stay there!'
you(Sg) you will sit NMET 43.9.2

Similarly, 2nd person pronouns may be added (redundantly) to interrogatives which already include pronominal markers:

(6.vii) naga=n a-n?i-ga nu-n?u-bur? 'you(Sg) you are
Where do you sit? (i.e., Where are you staying?)'
NMET 18.14.4

See also 20.14.5, and for a pronoun in a yes/no interrogative 34.5.4.

It is not uncommon to find a pronoun added (redundantly) to a clause whose core is a predicative NAdj with intransitive pronominal prefix:

(6.viii) nga=marbuy n?aya n?u=n?u=n?u 'I know'
I know I I know NMET 32.3.1

Since the pronoun here is unnecessary, it may be favoured by an intensive context, and note that the predicate in this ex. is repeated for emphasis.

A Nominative pronoun may be added to a verb (with pronominal prefix) as a mild reinforcer or to clarify the pronominal category. It should be noted that there are surface syncretisms in the pronominal-prefix system (Chapter 9) which may favour the addition of independent pronouns; for example, transitive prefix /n?u-n?= can mean '1Sg?G?2Sg?G?3Sg' or '3Sg?N?4Sg?A?7Sg?G?', so /n?u=n?u=n?/ can mean 'I saw you' or 'She saw him'. These forms might be disambiguated by adding a Nominative pronoun, perhaps marking the object, and most likely postposed to the verb and unstressed:

(6.ix) n?u=n?u=n? naga=n 'I saw you(Sg)'
I saw you you(Sg)

Nominative pronouns also have functions within noun phrases. Nunggubuyu does not permit 1st or 2nd person pronominal prefixes to replace regular No markers in nonpredicative nouns (as do some nearby languages) to produce a single-word construction of the 'we the people' type. It is therefore fairly common to find a full noun (with No prefix, if appropriate) juxtaposed to a 1st or 2nd person pronoun:

(6.x) muu-nu=n?u=n? naga=n yai:-nu- 'members of Murungun clan this way
we(Exp) we(pl) 'we the Murungun [are going] this way'
NMET 18.16.7/8

(6.vi-x)
For similar exx. see NMET 34.8.3, 50.3.6, 71.33.1, 74.1.1, and 77.2.6. (In 98.3.2/3 both the noun and pronoun are in a nonzero case form; in 114.11.5/6 we have a pronoun in /-ayun/ Contrastive form.

Nonsingular pronouns are also used in conjoined noun phrases. The usual way to say 'San and I' in Nunggubuyu is 'San we(BDu)', where the 1st person pronoun incorporates the first referent (§15.7). Some textual exx. are 161.18.2, 163.7.7, and 163.11.5/6.

Even the 3rd person pronouns, whose pronominal categories are already (potentially) marked on nouns by the latter's NC prefixes, may be added before or after nouns. We might think of these occasional constructions as roughly approximating English definite-article-plus-noun constructions. However, it must be emphasised that the Nunggubuyu construction is unocnom, once we factor out those pronouns which have contrastive functions due to the narrative structure. Exx. of the construction we are considering are these:

(6.xi) bi-rn¹¹¹ adaba win¹¹¹ suburaca-.
those(FDu) now they(FDu) sit
wu-gu-rn¹¹¹ n¹¹¹-s¹¹¹-gal-wa: they(FDu) big women(Du)
'They are sitting there now [as totems], the two Big Women' (NMET 25.4/5/6).

(6.xi) mana-wangurac ma-gu-r¹¹¹ ma=³'raÁ¹¹¹-ga-nº.
bandidoot it(MANA) it(MANA) looked
'Bandidoot[animal, in myth] took a look' NMET 37.3.6

Finally, Nominative pronouns may be used occasionally in place of pronouns in marked (nonzero) case categories. Leaving aside the contrastive function, it is difficult to find textural exx. of Nominative pronouns substituting for Ablative, Allative-Dative, or similar cases. However, Nominative pronouns may be used as an option, instead of Relative (possessive) pronouns (§6.5), as "possessive" modifiers of another noun, especially kin terms or others with inalienable characteristics. See NMET 14.7.4 ('my mother'), 82.1.1 ('my name'), and perhaps 64.6.3 ('[various totems] of us the Mandhayum8 soley'). For discussion see §15.8.

It should be emphasised again that the most common use of Nominative pronouns is inative. Unfortunately, it is not always easy to determine the specific "function" of a given occurrence of a pronoun in a text. It is possible that some exx. cited above in connection with one or another of the minor functions of these pronouns may in fact, on further analysis, turn out to involve a contrastive nuance. The difficulty is that if a discourse function like contrastive focus is a flexible one which correlates only with specific syntactic contexts; this is especially the case with simple Nominatives in (weak) contrastive use.

6.4 Uses of Relative case forms of pronouns.

For the forms, see Table 6-1, above.

These pronouns are used as genitive modifiers with another noun (overt or covert). They should be distinguished from the unsuffixed Oblique forms of pronouns (§6.5, below), which are used mainly in predicate-genitive function ("[is] mine", etc.).

In the textual exx., the modifying Relative pronominal form almost always refers to a human or myth protagonist. The modified (possessed) noun is usually a kin term (or similar word like 'group' or 'children'); a term for a place or a totem (belonging to members of a clan, moiety, etc.); a term or concept like 'language', 'words', or 'customs', all of which are often expressed by the noun /-har/ or /-a material object or substance.

/ni-ra/-ni in un¹¹¹ occurs with kin noun or similar in 132.7.4, 157.12.4, 161.2.2; with place or totem 41.6.5, 50.4.3, 50.7.5 (clan burial site), 64.1.1, 64.3.6, 64.8.5, 72.2.3, 113.1; others are 'bush medicine' (or knowledge thereof) 139.13.2 and 139.15.3, and 'rain shelter' 104.3.3.

The other common form in the texts is 71g /-ni-ga-w/-ni in un¹¹¹; for kin term or similar 74.1.6; place/totem 28.12.1, 29.2.3, 35.9.6, 69.2.2/3, 168.10.1/2; others are 'tapeticks' 28.10.2 and 'ritual poles' 29.13.1/2.

39g /-ma-ga-w/-ni in un¹¹¹; with kin term or similar 4.8.3; also with 'mission [settlement]' 161.16.1/3/4.

39g /-du/-ni in un¹¹¹ place 28.11.6.

39g /-ma-ga-p/-ni in un¹¹¹ place 157.16.3.

39g /-a-ga-p/-ni in un¹¹¹; kin or similar 15.14.2.

39g /-ni-ga-p/-ni in un¹¹¹; words 7.17.5.

39g /-ma-ga-p/-ni in un¹¹¹; totem 63.1.2.

71g/WARA/WARA found in ANA class sense 138.4.1 referring to a part (substance) of a tree sp. specified only by a relative clause ("its stuff which does that") and only later specified by a noun. We emphasise that nonhuman /-ya/-ni in un¹¹¹ pronouns are rare; the most common context for a nonhuman "possessor" is a whole-part clause like "its top" or "its root" (usually expressed by a very different grammatical mechnism, see §5.9.2), or an occasional kindship term referring to social animals like 'its mother' (expressed by derivational prefixes, see §5.11).

From these data it is apparent that the pronominal form with /-ya/-ni in un¹¹¹ has essentially the same senses as do corresponding nominal forms with /-ya/-ni in un¹¹¹ (§4.30).

However, pronominal forms with /-yi/-ni in un¹¹¹ superimposed on /-yi/-ni in un¹¹¹ have been found. The textual exx. involve /-ni-ga-w/-ni in un¹¹¹/-yd/-ni in un¹¹¹ (where /-n/-ni in the antepenultimate syllable may become surface /n/-ni or /m/-ni) in NMET 47.23.1 and 64.9.4. These exx. appear to mean "[to speak] about my X", where my X corresponds to /-ny/-ni in un¹¹¹, to which is then added the nominal case suffix /-yi/-ni in the sense 'about, concerning'.

We do not have any exx. of */-yi/-ni in un¹¹¹ with noun stem, but we have remarked (§4.30) that /-yi/-ni in un¹¹¹ is often added to a full
noun form already containing another case suffix, and it is possible that */-yin'un/-jin'un'/ would be possible with a noun in similar sense.

Relative forms of a pronoun may precede or follow the modified noun (if the latter if overt), and may be separated from it by other constituents. If the modified noun is in a non-zero case form, the genitive pronoun normally shows up in the corresponding non-zero case (with no case suffix). */nuya-wi/-wuy-a/-liai/-wuy/ 'to me to country' (= 'to my country'). We may account for this by assuming a rule of case agreement or spreading from modified noun to modifier (affecting also relative clauses), and by a rule that the Relative suffix is dropped when another non-zero case suffix (except */-yin'un'/) is added; see §16.4.

Relative suffix */-m'in'un'/ cannot be added to an already complete pronoun word containing another case suffix. However, the regular non-final Relative suffix */-yin'un'/ is attested with Allative-Dative */-wiy/ in a pronoun */nu-ri:-wi-yin'un'/, of to us(ExPl). Here */nu-ri:-wuy/ 'to us' has the contextual sense 'earlier generations' down to and including us [the presently living]', while */-yin'un'/ means 'of, associated with [this generation'.

6.5 Unsuffixed Oblique stem (predicate genitive).

The forms are given in Table 6-1, above. The primary function of the unsuffixed Oblique form is that of predicate genitive: 'X [is] mine', 'X [is] yours', etc. There is no corresponding form for nouns, so in order to say 'X [is] the man's or the like it is possible to use a predicate genitive pronoun 'is' his' with the noun added in apposition (usually in Relative case form with */-yin'un'/ suffix). See §15.8.

The unsuffixed Oblique form is thus, in principle, distinct syntactically from the Relative form of pronouns with suffix */-m'in'un'/ (§6.4). However, in this language clause structures are relatively fluid, so that what might normally appear in English as a modifying (attributive) genitive might show up in Nunggubuyu as a separate predication (predicate genitive); on the other hand, a Relative case form of a pronoun ('my', 'your', etc.) with */-m'in'un'/ might occasionally be used in a construction where it borders on a separate predication. Along the same lines, we might find English 'X gave Y to Z' showing up in Nunggubuyu as something syntactically translatable as 'X furnished Z (with Y)', [it is] his', where a predicate genitive coreferential to Z is added. It should be added that the clause boundaries suggested by commas in formulae like the above are not necessarily marked in Nunggubuyu by pauses or clear-cut intonational contour boundaries.

In addition to textual instances which are clearly or possibly predicate genitives, there are a few where the unsuffixed Oblique stem seems to be used as an abbreviated substitute for a fuller pronominal form involving a non-zero case suffix (which could be added to the presuffixed Oblique stem). Very rarely the unsuffixed Oblique occurs in a direct object pronoun; perhaps this (rare) usage involves the limited tendency of direct object nouns (usually
for such pronouns is case agreement, by which the case of a noun is copied onto a modifying Relative (genitive) form, with deletion by another rule of the Relative suffix. Thus English 'to my house' will regularly show up in Nunggubuyu as 'to-me to-house', where to represents the Nunggubuyu case suffix 

However, often a case form of a personal pronoun occurs without a juxtaposed modified noun in the same case. The question then is whether something like /ngaya-wi-wuy/ is to be translated 'to me' or as 'to my [X]', supplying some omitted noun from context. However, this reading is more clearly necessary in some instances than others, and interested readers would do well to consider the actual textual occurrences. A few exx. are clearly of the 'to-me' type.

Exx. of Allative-Dative /-wluy/ are NMET 15.13.2 ('come to me', 1InPl), 49.8.3 (2Pi, see comment below), 41.5.5 (1Sg, genitive case agreement though case suffix omitted from juxtaposed noun), 47.16.3 (2Pi, 'to you' or 'to your camp'), 69.16.1 (1ExPi, see below), 71.28.3 (1ExPl, see below), 73.4.1 (1ExPl, see below), 73.4.5 (3MSg, probably 'to his camp'), 98.3.2 (1ExPl, see below), 100.7.7 (1ExPl, see below), 114.1.4 (case agreement, 1ExBi), 120.1.6 (case agreement, 1ExPi, see below), 139.11.14 (1ExPi, with further addition of /-yinYin/, discussed at end of §6.4), 139.14.15 (3Sg then 1ExPi, see below), 162.7.3 ('it faced toward us').

Several of the 1ExPl and 2Pi exx. just listed have a meaning 'you(Pl) too' or ('us(ExPl) too', normally in a temporary sense, and sometimes in the old days, and in some temporal contexts 'where in the old days is literally among the old people' with Retrospective Pergressive case suffix /-waj/, and where 'nowadays' is literally 'to us [living persons]'. The 2Pi ex. (49.8.3) involves a similar extension of the type 'this is the origin of death for us Aboriginals, and maybe for you [whites] too', where the recent penetration of whites into the region may give a temporal dimension.

Exx. of Locative /-ru/ are NMET 9.13.4 (1Sg, 'at my country'), 13.21.2 (3MSg, 'at his place'), 13.23.1 (1ExFu, at our place), 40.7.2 (3MSg, case agreement), 45.2.3 (NMARA referring to crocodile in legend, semi-personified, case agreement involving displaced preceding noun and following relative clause), 59.5.1 (1Sg, case agreement though following noun omits case-marking, 161.12), and in (1Sg, 'at my country'), 168.4.2 (1ExPl, 'in our country'), and in (1Sg, NMET 47.18.4). However, I do not consider this to be an ex. of the instrumental usage of suffix /-miri/; for discussion see §6.12, below.

A similar remark about the infrequency of nonhuman pronouns with Relative suffix /-yinYin/ was made above (§6.4).

6.7 Vocatives.

Instead of the usual Nominative pronouns, for direct address a special set of 2nd person pronominal forms is used:

<table>
<thead>
<tr>
<th>Sg</th>
<th>/gu-wa/</th>
<th>'hey you!'</th>
</tr>
</thead>
<tbody>
<tr>
<td>2MDu</td>
<td>/gu-mi-wa/</td>
<td></td>
</tr>
<tr>
<td>2Pi</td>
<td>/gu-rf-wa/</td>
<td></td>
</tr>
<tr>
<td>2Pl</td>
<td>/gu-r-wa/</td>
<td></td>
</tr>
</tbody>
</table>

These are pronounced as interjections. In form, the nonsubject Vocative forms resemble Nominatives (/nu-ganu/, /nu-gnu/, /nu-gu/) except that the initial morpheme is dropped off. The ending /-wa/ is not to be taken as a Pergressive suffix, which would require the oblique stem (*/nu-gu-qi-/-wa/, etc.), but it could be connected formally with Emphatic /-wa/ (§6.9).

These pronominal Vocatives are very common and do not have the rude characteristics of English 'hey you!'. Textual exx. of the Sg are 20.9.13, 20.15.4, 20.16.2, and 34.3.5, of the 2Pl TNT 15; of the Pl 18.10.4, 69.14.3 (exx. from NMET unless otherwise indicated).
Occasionally, /gu-waj/ is treated as an unsegmentable noun (most and discourse-function forms begin with /nu-ga-/ (Table 6-1, above). The nonsingular Vocative pronouns do not have this meaning.

These are discourse-function forms which are based formally on the Nominative pronoun, though they occasionally relate to grammatical relations other than subject or direct object. The /-a/ always contracts with the preceding morpheme’s final vowel by regular VV-Contraction P-49. Five exx.:

/-nu-ra:-’yun g /
/-ni-ni:-’yun g /
/-ni-ja:-’yun g /
/-nu-ga:-’yun g /

The forms which are not quite exactly based on the regular Nominative are these:

/-nu-ru-ayun g /
/-ni-ru-ayun g /

The forms in /-ayun g -gaj/ are identical save for the addition of the final suffix, whose base form must be /-a/ and which might be associated formally with /-waaj/ in emphatic pronoun forms (§6.9) and/or with Retrospective Progressive case suffix /-a/ (§4.23), though there are semantic discrepancies.

In the section we begin by discussing the functions of the form in /-ayun g/ especially vis-a-vis the rather similar but often weaker contrastive usage of simple Nominative pronouns (§6.3). At the end of this section we discuss the less common form in /-ayun g -gaj/.

There are probably well over one hundred exx. of /-ayun g/ in the texts in NMET, and we cannot analyse all of them here. The prototypical function of /-ayun g/ is to emphasise a contrast in NP in an important grammatical relation from one clause to another.

Generally, the contrastive pronoun in one clause indicates a contrast with respect to the preceding clause and the following clause which introduces the referent to the text; switching indicates whether the pronoun occurs in one clause (§6.3) with a constraint involving /n/ and the preceding clause; grammatical relation is based on case marking (especially that in pronominal prefixes in the verb) with the provision that subjects of normally intransitive verbs which have a Benefactive object specified in the verb are treated here as intransitive. In these definitions, 'clause’ is interpreted liberally so that a pronoun postposed to a clause after a slight pause may be considered part of that clause.

Data from NMET texts 1-12.

| Table 6-2 | Analysis of /-ayun g/ and Nominative Pronouns
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominative /-ayun g/</td>
</tr>
<tr>
<td>1. giveness</td>
<td>first occurrence</td>
</tr>
<tr>
<td></td>
<td>yes 13 (62%)</td>
</tr>
<tr>
<td></td>
<td>no 8 (38%)</td>
</tr>
<tr>
<td>2. switching [repetitions only]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yes 13 (62%)</td>
</tr>
<tr>
<td></td>
<td>no 8 (38%)</td>
</tr>
<tr>
<td>3. grammatical relation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intr. subject 19 (66%)</td>
</tr>
<tr>
<td></td>
<td>tr. subject 7 (26%)</td>
</tr>
<tr>
<td></td>
<td>direct object 1 (6%)</td>
</tr>
<tr>
<td></td>
<td>Relative case 2 (100%)</td>
</tr>
<tr>
<td></td>
<td>Total 29 (100%)</td>
</tr>
</tbody>
</table>

Notes: giveness specifies whether the pronoun occurs in the clause which introduces the referent to the text; switching indicates whether the pronoun occurs in one clause (§6.3) with the relevant constraint involving /n/ and the preceding clause (§6.3); grammatical relation is based on case marking (especially that in pronominal prefixes in the verb) with the provision that subjects of normally intransitive verbs which have a Benefactive object specified in the verb are treated here as intransitive. In these definitions, 'clause’ is interpreted liberally so that a pronoun postposed to a clause after a slight pause may be considered part of that clause.

Data from NMET texts 1-12.

Dimensions shown in Table 6-2, above.

We note, first of all, that the Nominative pronoun and especially the Contrastive form in /-ayun g/ are most common in connection with referents which /have already been introduced into the text, though (except in instances of anticipatory contrast) they have been omitted in the immediately preceding clause(s) or perhaps occurred in them in a distinct semantic role or in some other fashion which permits a contrastive nuance to occur. However, the pronoun forms are sometimes used in the clause which introduces the referent to the text (especially if this context involves a direct contrast with some other referent).

Second, we note (restricting our attention to pronouns not introducing the referent for the first time) that the Nominative

Table 6-2

<table>
<thead>
<tr>
<th>Section</th>
<th>Data 1-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>§6.7</td>
<td>254</td>
</tr>
<tr>
<td>§6.8</td>
<td>255</td>
</tr>
</tbody>
</table>
and Contrastive forms typically occur in clauses (often at the beginning of the clause) where there is a clear referential contrast between the referent of the pronoun and some other referent in the preceding clause; thus, retrospective contrast is the predominant function of these forms.

Third, we see a very strong predominance of (intransitive and transitive) subjects as referents of these pronouns, though a small number of instances involving direct object or Relative (i.e., genitive) are attested. We have noted these exx. for pronominal person or noun class. A statistical analysis would be biased, since the particular texts analysed are myths in which the characters are humans or personified nonhumans for the most part. Considering other texts as well, it appears that pronominal person or noun class is not a discernible factor in the usage of these pronoun forms. Nonhuman pronouns such as MANA /ma-gu-ra:'yun g/ are freely usable, and if they turn out to be statistically a little less common than forms of human pronouns, this would merely reflect interacting factors, such as the lower frequency of nonhuman than human grammatical subjects.

For the record, the exx. used are these. For Nominative:

1.1.7, 1.1.7, 1.2.2, 1.10.1, 2.2.2, 3.1.3, 3.2.3, 3.3.2, 3.4.4, 4.2.2, 4.5.5, 4.6.1, 4.6.2, 5.7.4, 6.2.1, 6.2.4, 7.7.2, 7.7.3, 7.17.4, 7.21.1, 8.9.1, 9.1.3, 10.2.1, 10.5.1, 10.8.1, 10.17.3, 10.17.8, 11.2.1, 12.2.2. For /-ayun g/: 1.2.2, 1.2.2, 1.2.1, 1.2.1, 1.8.8, 1.9.1, 1.9.3, 2.3.3/4, 3.2.1, 3.6.4, 4.2.2, 4.3.2, 4.4.2, 4.4.3, 5.10.2, 5.15.1, 5.15.2, 7.7.1, 7.7.4, 7.12.3, 7.12.4, 7.18.1, 7.20.7, 9.1.5, 10.5.3, 10.19.1, 10.17.1, 10.17.2, 11.1, 11.2.1, 11.3, 12.5.3, 12.1.1, 12.2.1, 12.2.2, 12.6.3, 12.10.1/.

Because nouns and demonstratives do not have similar forms indicating clause-to-clause referential contrasts, such pronouns often co-occur with a noun, demonstrative, or both with the same reference. A common position for the pronoun is clause-initial (possibly preceded by /ada/ or /a/ 'now', which is commonly found at switching points). A coreferential noun or demonstrative may immediately follow, or may occur as specifiers later in the clause (or as tacked-on afterthought phrases). The following are indicative of a following contrast, which materialises with Contrastive function:

1.1.7 V Adv V 4.5.5 V yamba [because]
1.10.1 aba N1
3.3.2 Adv N1
3.4.4 Adv V
4.2.2 N1

Now some similar exx. involving pronouns with Contrastive suffix /-ayun g/: 1.2.1 Adv V 4.3.2 N1
1.8.8 Adv V N1
2.2.3 Adv N1, yamba V V
3.2.1 V... V

These and many other exx. establish clause-initial position as characteristic but far from obligatory for Nominatives (in contrastive function) and Contrastives, except for the particle /yamba/ or /a/ which often precedes it. A variety of factors may result in a different position. In 4.5.5 (see list of Nominative exx. near bottom of preceding page), the particle /yamba/ is a complicating factor; this particle is a second-position-in-clause enclitic which must follow a major constituent, normally the verb or other predicate, so the pronoun can be considered to have been displaced rightward to accommodate /yamba/. In the case of anticipatory contrast, the pronoun may tend to be located at the end of the clause so as to occur near the break between the two contrasted clauses (though clause-initial position is possible in this context as well). Even in cases of retrospective contrast, where clause-initial position is optimal, the pronoun (and perhaps a larger NP also involving a demonstrative and/or noun) may be postposed to the core of the clause, in the afterthought position. Flexibility in word order, in other words, is permitted since the language has generally fluid order and does not require sharp phrasal or clausal boundaries (indicated by intonation contours, etc.).

Let us now look a little more closely at some of the exx. in this list. In NMET 4.2.1-3 we have a passage like this:

(6.xiiii) "[quotation 1]." she said, "Emui, ka [ni-ga:-'yung] Gecko; ae-for-him [ni-ga:-'yun g] he said, "[quotation 2]."

Here there is a clear contrast between two speakers (and their respective quotations). At the switch point the narrator begins with the weaker Nominative (just imposed to the noun 'Gecko'), then reinforces this with the stronger Contrastive (reinforcing the Contrastive in the case of /ni-ga:-'yun g/ does not occur at the actual break point it was coded as 'no' in connection with switching in Table 6-2, while /ni-ga/ was coded as 'yes' since it occurs at the break. We may refer to this as a /you/ like this instance as a second-position-in-clause enclitic which must follow a major constituent, normally the verb or other predicate, so the pronoun can be considered to have been displaced rightward to accommodate /yamba/. In the case of anticipatory contrast, the pronoun may tend to be located at the front of the clause so as to occur near the break between the two contrasted clauses (though clause-initial position is possible in this context as well). Even in cases of retrospective contrast, where clause-initial position is optimal, the pronoun (and perhaps a larger NP also involving a demonstrative and/or noun) may be postposed to the core of the clause, in the afterthought position. Flexibility in word order, in other words, is permitted since the language has generally fluid order and does not require sharp phrasal or clausal boundaries (indicated by intonation contours, etc.).

In 9.1.3-5 we seem to have an instance where the Nominative pronoun occurs at the break and then is reinforced by a Nominative 'because' in 9.1.1/2, but in this instance the Nominative may have a function other than marking contrast.

In 9.1.3-5 we seem to have an instance where the Nominative pronoun /wu-gu-ra:-'yun g/ 'they [whites]' (9.1.3) is used in anticipation of a following contrast, which materialises with Contrastive /wu-gu-ra:-'yun g/ 'as for them [Aboriginals]' (9.1.5). This pattern seems reasonably common. It is partly on this basis that I consider the Nominative to be weaker in its contrastive functions than the form in /-ayun g/, since anticipatory contrast is likely to be weaker than retrospective contrast. The fact that the Nominative is more common than the Contrastive in first occurrences of NPs in narrative points in the same direction; first occurrences tend to draw attention to the identity of the new NP rather than to a specific contrastive relationship to another NP in a nearby clause.

In addition to a relatively complete inspection of pronouns in texts 1-12 of NMET, I have also gone through the other texts in that volume looking for further exx. of the more interesting or
exotic instances of Nominative and Contrastive pronouns (in what follows I also work in a few of the exx. from texts 1-12 not already commented on).

One pattern deserving comment is the dissolution of a nonsingular NP in one clause into two or more (usually 2) NPs in the next. This results in many cases in contrasts at least between referent has a Nominative pronoun and the second has a Contrastive pronoun, indicating that this is structured as anticipatory vs. retrospective contrast.

Since Table 6-2 indicates that direct objects do not usually get Nominative or Contrastive pronouns to mark clause-to-clause referential contrast, I have looked in NMET for other exx. of this uncommon type. In the following exx., we have intransitive subject TS in the preceding clause, and then the same noun as transitive subject TS in the next direct object 0; we get Nominative pronoun for 0 in 7.21.1 and 15.8.2, and Contrastive pronoun for 0 in 12.10.1/2, 14.13.1, 71.9.3. Another pattern is to have a transitive clause with TS and 0, followed by another transitive clause with just the direct object changed, hence with TS in the preceding clause and 0; (so that the primary contrast is between 0 and 0); Contrastive pronoun for 0 in 41.5.2/4, 55.8.4/5, and 92.4.3. A variation of this is in 95.10.7, where instead of a clearcut preceding transitive clause we have a list of NPs. In 62.1.1 we have a Contrastive pronoun at the very beginning of the text as a kind of title; this becomes direct object of the first verb (and what is later), but here the contrast is presumably with referents discussed in other texts recorded just before and is thus unrelated to the direct object status of the referent. A more uncommon construction is seen in 89.2.3, where we have TS and 0 in one clause, followed by TS and 0 in the next; the 0, occurs with Contrastive pronoun, but seems that the construction with TS in clause C0-1, followed by TS and 0 in clause C0, can induce a Nominative or Contrastive pronoun for 0 (beginning of preceding paragraph). However, we also have exx. of the type with TS, then TS; and 0, where the new NP is TS; and it is put in Contrastive pronoun form, an ex. being 15.6.2. These exx. show that Contrastive pronouns have rather flexible usage, and do not depend on a highly restricted syntactic frame (in the fashion, say, of switch-reference in many languages).

A special type of construction involves role reversals in adjacent transitive; TS; and 0, then TS; and 0 (e.g., 'he hit her, then she hit him'). Ideally, we would like to see whether it is TS; or 0; in the second clause which is put in the Contrastive form (it does not seem to be possible to put both NPs in this form, however, the textual exx. are inconsistent on this point and we conclude that either TS; or 0; may be thus realised, presumably depending on the speaker's immediate perspective on the action. Thus in NMET 42.4-5 we get a sequence which we may represent in simplified fashion as follows, with English masculine and feminine pronouns used to keep the two referents distinct; underlining indicates use of Nominative pronoun, double underlining use of Contrastive pronoun:

(6.xiv) they[reciprocal verb] # she # she him # she him # he her # she him # she him # she him # he her #

The formula here omits verbs and other constituents; a single pronoun between cross-hatched clause boundaries) is intransitive subject. The first 'she' (/ni-ga/) involves dissolution of a joint individual out of one of the individuated referents (see above). Then there is a transitive verb with 'she him' (no pronouns except for pronominal prefixes in verb). We then have an Intransitive verb with 'he' (/ni-ga/) as a weakly contrastive element. Then there is a transitive verb with 'he her' involving the only (strong) Contrastive pronoun /ni-ga-'yun/; the action is the same as in the preceding transitive with 'she him' but with roles reversed, and it seems that here the contrast jumps over the intervening intransitive clause. This is followed by a transitive clause with a different but related verb, with roles reversed again and with 'she him' (repeated three times). We might have expected the TS rather than 0 to have the Nominative (or Contrastive) pronoun, but the speaker places the contrastive emphasis here on the 0. Finally there is another reversal and this time it is the TS ('he') which gets the Nominative pronoun. For better understanding, readers should examine the actual passage and try to reconstruct the narrator's perspective.

In NMET 42.6, i.e., a bit later in the same text, we have this:

(6.xv) he her # she it # she it # she us # she [broken fragment] # he her # he her # she him #

We here disregard the initial Nominative 'he' since it involves preceding material not presented here. This passage shows fewer pronouns than the preceding passage. Role reversal in the final part of clauses induces Nominative 'she' for the TS after the switch. However, the speaker places the contrastive emphasis here on the new TS (it is possible that the 'she' in the broken fragment is really the 0 of the following transitive clause).

Another ex. is NMET 75.1.5ff.:

(6.xvi) they him # they him # he them # they him # they them #

Here a different pattern is used, where the pronouns all relate to the 3MSg referent. As 0 (actually, recipient of 'give'), this referent shows up in Nominative form as /ni-ga/ (except in one repeated clause), but at the contrastive switch point (invoking role reversals) this referent gets the (strong) Contrastive form /ni-ga-'yun/. (The last two clauses are basically a repetition of the preceding sequence, and reproduce its basic structure.) It would seem that one of the factors here is the clear identity of the 3MSg referent, as opposed to the relatively vague 3Pl collectivity. Together with the previous exx., this one shows some fluidity in the way particular referential networks (involving specific case or relation categories) affect use of these pronouns.

(6.xiv-vxvi)
Nomina1 or Contrastive pronouns may be used with 2nd person imperative subjects just as with other clause types. For example, in 17.12.1/2 we have consecutive imperatives addressed to two different persons; the first clause includes Nomina1ive or Contrastive /-ayun/ while the latter has the (stronger) Contrastive form

\[ /-ayung-gaj/ . \]

This sequence of (anticipatory) Nomina1ive and (retrospective) Contrastive is parallel to similar constructions involving declarative clauses.

In 13.20, we have 'he other words he gave them' (i.e., 'he was giving them'. Here 'he' is a Nomina1ive pronoun. This is mentioned since the (weak) contrastive nuance indicated by \[ /-ayun-gaj/ \] is parallel to similar constructions involving declarative clauses.

This pronoun (referring to different persons) not quoted here) co-occurs with a direct object NP ("other words") which appears to be focal in a different sense (new, unexpected information of some importance). Preverbal position is a good one for such focal material (though this is not rigorous), Although the "contrastive" function described in this section is, in a way, a kind of focus, it is advisable to distinguish contrastive sense sharply from other kinds of "Focus" which may be expressed by other discourse-sensitive pronominal forms (see below, this chapter) or by other mechanisms (preverbal position, absence of \[ /-ayung-gaj/ \] prefix in nouns §6.8, etc.).

We mentioned earlier that the Contrastive form with \[ /-ayun/ \] was not common with NPs in their initial mention in texts. The one ex. mentioned in Table 6-2 is actually a bad one since it co-occurs with an Anaphoric demonstrative pronoun and thus seems to imply contextual givenness (11.1.3). However, there are a few other exs. in later texts in NMET which do show \[ /-ayun/ \] for initial occurrences (17.2.1, 80.2.2), as long as the context involves some kind of clause-to-clause contrast.

We now consider the other suffix form, in \[ /-ayung-gaj/ \]. I have found about 40 exs. in the texts in NMET; this form is therefore much less common than Nomina1ive or Contrastive \[ /-ayun/ \] forms. This form can generally be translated 'he pronoun' like the form in \[ /-ayun/ \], it requires that the referent be in a clause where a direct contrast is possible with a distinct referent in a juxtaposed clause. However, with \[ /-ayung-gaj/ \] there is the additional requirement that the two parallel referents be involved separately in (near-)identical motions (in the same basic roles).

This excludes, for example, rois reversals of the type 'he hit her, then she hit him (back)', and also excludes instances where the two relevant referents are in different roles in the two juxtaposed clauses.

There is no special preference for grammatical subjects with \[ /-ayung-gaj/ \]; several exs. in the texts involve direct objects (e.g., in long lists of foods eaten). Nonhuman as well as human referents are repeatedly attested. The form is not very common with 1st or 2nd person pronouns, and there are no textual exx. involving these categories, though the forms are possible. The pronoun in \[ /-ayung-gaj/ \] may be preposed or postposed to the associated noun, and the latter position is reasonable common.

Aside from the increasingly frequent use of English too as a borrowing (with Nomina1ive pronoun as in 117.2.6, with Contrastive
The form in /-waj/ involves a special type of focus. Unlike other discourse-related phenomena which might be lumped together as "focus" (contrastive focus as in §6.8, newness/givenness as described for nouns in §4.8, etc.), the precise nuance in the case of /-waj/ pronouns is foregrounding the identity of a referent as a paradigmatic choice. For example, to answer a 'who?' question with /-yaj/ as a pronoun in /-waj/ (here /-yaj/ may function as (nonverbal) predicate specifying identity. The demonstrative 'this' in the answer can be taken as the subject of this predicate, hence 'this [is] us'. (Proximate demonstratives of this predicate, hence 'this [is] us'. (Proximate demonstratives of this type are used in addition to being standard in such 'who?' answers, pronouns with /-waj/ are moderately common in connection with sentences in which the pronoun is merely an argument in a fuller proposition (e.g., subject of a regular intransitive or transitive verb). Such constructions correspond in sense to English cleft constructions such as 'It is you who ate the food', The Nunggubuyu construction would involve a pronoun with /-waj/ (position variable) and a regular (unsubordinated) main clause. There is no simple syntactic test for determining whether the pronoun is single-predicate or double-predicate construction (we will find the same problem in Chapter 7 in dealing with demonstrative pronouns). As is not infrequently the case in this language, drawing tree diagrams with phrasal and clausal units set off from each other is an arbitrary and generally unedifying exercise. What is important is to specify the discourse functions of the relevant forms. In this case, we can say that the /-waj/ pronoun is used in contexts (including but not limited to answers to 'who?' questions) in which the speaker feels there is a need to emphasize the identity of a given referent as the real one out of a pool of possible choices. Present the examples in NMET (and a handful from Hughes' texts) here, with brief paraphrases in some instances.

25 /nu-ru-waj/ in 3.6.1ff., 5.6.1ff., 7.21.2 ('it is me speaking'), 16.11.3, 20.8.6 (unclear usage), 20.10.2, 40.5.5/6, 25.9.2 ('I alone will go in'), 60.3.5 ('it is me who made it'), 62.1.5 ('I am the one who can send the NW wind'), 161.20.2 (with /-yaj/). 'I myself sawed it', 163.1.2 (of individuals), 163.17.3, 163.18.2 ('Give it to me! I [will do it]').


18MDU /nu-ru-waj/ in 18.12.2/3, 18.19.7 ('Only we will go'), 20.4.5, 20.5.4, 52.1.4 ('we are the ones who send the NW wind'), 114.3.4, 114.4.5 (with English too, 'us too ate it'), 157.5.3 (unclear usage), 157.14.5 ('we eat there'), 167.21.1 ('we [remained]'), 168.6.4, 168.7.4 (Nominaive /nu-ru/ followed by /nu-ru-waj/).

19MDU /nu-ga-;aj-baj/ in 15.8.2 (followed by /nu-ga-;aj-baj/). 20.7 /nu-ga-;aj-baj/ in 7.12.1 ('maybe you stole it'), 20.8.5 (usage unclear), 30.1.4 ('if you are there').

20 /nu-gu-ru-waj/ in 168.8.4 ('It is you who speak Nunggubuyu').

34MDU /nu-gu-ru-waj/ in 7.21.3/5 ('he [not I] will say it in English'), 13.7.2 ('it was he who made it'), 25.13.4 ('because it was he who made the song'), 24.3.4 ('he said that narrator here correcting himself after using a MDU form'), 35.8.3 ('he made it'), 49.2.3 ('it is he who will fix it'), 65.11.4/7 ('he found it'), 161.35.5 (same as 7.21.3/5). Also MT 26.

34 /nu-gu-ru-waj/ in 45.11.6 (usage unclear). Also MT 25, TNP 3.

One striking fact about these exx. is that we are dealing with overwhelmingly human referents (with the usual allowances for human-like myth characters and the like). The form in /-waj/ is thus predominantly used to emphasize a truly individual identity (including small groups of people as opposed to others). Observe that Sg and Du forms are quite common in the list above. As already noted, many instances of /-waj/ involve predications of identity, so the question of permissible cases or grammatical relations is inexplicable here. In the exx. in the list which involve arguments in fuller clauses, the /-waj/ pronoun is normally associated with intransitive or transitive subject. However, /-waj/ pronouns can be used in connection with direct objects, e.g., a simple answer to a 'whom?' question with the queried referent functioning grammatically as direct object. Our final remark on /-waj/ pronouns is that, as in (6.xvii), they are often juxtaposed to fuller NPs as appositive specifiers in the exx. just listed (we omit the NP specifiers from our brief paraphrases here).

For /-waj/, /-ru-waj/, /nu-ga-;aj-baj/ /nu-ga-;aj-baj/ see §6.7.

The form in /-waj/-baj/ is rather less common than the form in /-waj/, but can be characterised as a stronger form of the same general type. The attestations are:
§6.9 Reflexive verbal suffix /-i-/ which creates reflexive and intensive forms. The reflexive form /-i-baj/ is added as a reinferrer to an initial form /na-yaŋ-ga-waj-baj/, where the /-waj-baj/ form is added as a reinferrer to an initial form /na-yaŋ-ga-waj-baj/. The reflexive form /-i-baj/ is added as a reinferrer to an initial form /na-yaŋ-ga-waj-baj/.

In Pl exx., it seems that a slightly different usage is involved, §10.5. Rather than anticipatory; the possible counterex. is TNT 17 ("they [MDu] drank, [or rather] the elder drank [first]").

6.10 Sequential /-abilhangu/.

This is a relatively infrequent pronoun form. Like the other discourse-sensitive pronoun forms, the suffix is added to a clause already containing a Reflexive verb form, so here it is definitely emphatic; in MT 26 the point is that the actor can undertake the action without help from others. In the 1st du and 1st pl exx., it seems that a slightly different usage is involved, stressing the solidarity of speaker (or speaker's group) with addressee, §10.3. In this usage the form in /-waj-baj/ is more clearly independent (as a separate predication) than in the other (reinforcing) functions.

§6.11 Lateral derivatives.

Demonstrative pronouns and adverbs have an important derivation involving Centripetal suffix /-la/ and Final Reduplication of the preceding stem (by rule P-3), producing forms translatable with "on this side" or "on that side"; see §7.21. An ex. is /yaŋ-jǝ-yaŋ-]-ia/ 'on this side' (adverb), from /yaŋ-jǝ/ 'here'. This construction is not typical with personal pronouns (nor with nouns). The exx. in MT 115.23.1 /nu-ri-ri-]-ia/ 'from us' are likely to express the discourse category "of us". The attestations, with simplified paraphrases, are now given.

The perspective, from these exx., is clearly retrospective rather than anticipatory; the possible counterex. is TNT 17 (see paraphrase above), but the passage seems somewhat broken and involves an apparent attempt at repairing by the narrator.

Even this small set of exx. suffices to indicate that there is no strict correlation between the /-abilhangu/ form and any particular grammatical relation (several exx. involve direct objects, others intransitive subjects; transitive subjects are not clearly attested in these exx., 'to drink' in TNT being formally intransitive in Nunggubuyu, but elicited exx. not presented here show that transitive subjects can also have this form).
reduplicative pattern is identical to that of the Lateral demonstrative form, but the final suffix should be set up as /-wajal/ (surface /-ya/ by rules P-9 and P-10) rather than /-afs/. The meaning is also more clearly ablative than in the lateral demonstrative form. In the absence of more and better exx., we conclude that this is a very marginal pronoun form.

6.12 Suffix /-miri/.

A suffix of this form occurs in nominal morphology as an Instrumental case marker (§4.27). However, it also occurs in demonstrative morphology as an emphatic element resembling English 'right' in 'right here, right there'; see §7.19.

No clear exx. of /-miri/ in instrumental sense ('by means of it') have been found with pronouns. This sense is incompatible in Nunggubuyu with human pronouns, and for nonhuman instrumentals we get the full noun form instead of a pronoun, thus /n'wa-mir nest/ 'by means of fire'. We conclude that Instrumental forms of independent pronouns are ungrammatical, or at least vanishingly rare.

There are three exx. of pronoun forms involving /-miri/ in the texts, and so far as I can determine they have the emphatic rather than instrumental sense.

In NMET 47.18.4 we have /ni-ga-wi-miri/ 'he', where /-miri/ is added to the presuffixal Oblique stem (and thus has the form of a case-marked pronoun). The passage in question is broken to interpret, /n'wa-ga-yu-mir nest/ with /-miri/ added to /-yu/ is problematic but may involve case-spreading from a verb.

In 161.20.2 we have /n'ya-wa-miri/ 'I myself [sawed wood]', where /-miri/ seems to reinforce the Emphatic /-wa/ form (§6.9). In 28.10.3 we have /ni-ga-/-wa-miri/ 'he [played tapsticks for himself]', added to Emphatic /-wa/-/ (§6.9).

We conclude that /-miri/ may be added sporadically to pronouns to reinforce an emphatic sense; if the pronoun does not already have Emphatic form, /-miri/ is added to the presuffixal Oblique. The /-miri/ suffix is far more common with demonstratives than with personal pronouns.

6.13 Postpositions: /-wugij/, /-majii/, etc.

Our initial exposition of postpositional suffixes was in §4.32, and readers are referred there for comments about the semantics of the individual forms. See also §§7.30 and 12.21.

The suffix /-miri/ discussed in the preceding section (§6.12) could be considered a postpositional suffix, at least when added to /-wa/ or /-wa-baj/. Of the postpositional suffixes also used with nouns, the only one which is at all common with independent personal pronouns is /-wugij/ 'only, still, nothing but'. One fairly common combination is /-wa-bugij/, where /-wugij/ follows Emphatic /-wa/ in the sense 'only [me/you/him]'. Since the /-wa/ pronoun emphasises the narrowing down of a reference from a set of choices, it is natural that it co-occur with a postposition meaning 'only'. The exx. are NMET 18.19.9, 45.11.6, 167.21.1, TMP 3 and 33, MT 25 and 26.

§6.11 to §6.13

The postposition /-wugij/ can also be used with the unsuffixed Oblique form (in predicative genitive function). Thus from /ni-ga-wi/- /[it is] his/ we can get /ni-ga-wi-wugij/ 'it is still his' or /[it is] exclusively for him/ (NMET 21.2.2, 73.1.4, 74.3, 4).

Similarly, /-wugij/ can be added to the relative (i.e., modifying genitive) form of the pronoun with suffix /-in/ 'only', as in /n'ya-/-wa-n in/-bugij/ 'I learned only my own [myths]' (NMET 47.22.7). There is also one ex. of /-wugij/ added to the suffix sequence /-in/-/-ujin/- (discussed in §6.4, above) with two Relative suffixes (in different functions), hence /n'ya-wa-n in/-ujin/-bugij/ 'only about my own [myths]' in NMET 47.23.1.

It would seem that /-wugij/ would be illogical in combination with Comparative /-ayu/ or /-ayun/-, or Shortened /-abini/-, and no exx. have been found.

Another postposition found occasionally with an independent pronoun is Conditional /-majii/- 'if'. This morpheme is typically added to the predicate but can also be added to any conveniently available word at or near the start of a clause. Exx. involving Noninative pronouns are /ni-ga-majii/- 'if he...' (NMET 78.1.5) and /n'ya-majii/- 'if it is you who...' (30.1.4). See §16.7.

Other postpositions are not recorded with pronouns. The suffix /-maji/ is not used with pronouns, at least not in its usage with negative NADj or nonverbal predicates. Suffix /-magi/ (Evitatitive) is regularly attached to the predicate or to a negative particle, not to a pronoun. Suffix /-wugindiyum/ 'very, very much' does not seem to be logically compatible with a pronoun since it is essentially a quantifier. However, I cannot rule out the possibility of such a combination occurring rarely in a very large textual corpus.

6.14 Interaction of pronominal and demonstrative categories.

We will see in the next chapter that in addition to an Anaphoric series, demonstratives have three deictic series: Proximate ('this, here'), Immediate (not far away), and Distant. The Proximate is often used to designate the region around the speaker (in some contexts expanded to include addressee), while the Immediate often indicates the region around the addressee.

More significantly for this chapter, demonstrative pronouns (in ANA class form) are frequently juxtaposed to actual pronouns. For 1st person (exclusive and inclusive) the form is /ana/-'-ni/- 'this (ANA)', for 2nd person the form is /ai-da-nu/-/ or a closely related form. We might roughly compare English 'you there', 'we here'.

Ex. (6.xvii) in §6.9, above, shows /ana/-'-ni/- functioning as appositive to (or perhaps dummy grammatical subject of) a 1st person pronoun. For other exx. and discussion see below, §7.27.
Chapter 7
Demonstratives

7.1 General.

The demonstrative system is extremely complex formally; it is both complicated and extremely important functionally.

We begin by identifying demonstratives formally as words based on any of four roots whose paradigms are closely associated. The roots are these:

<table>
<thead>
<tr>
<th></th>
<th>Prefix-__</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximate</td>
<td>ya:-</td>
</tr>
<tr>
<td>Immediate</td>
<td>da-</td>
</tr>
<tr>
<td>Distant</td>
<td>yuwa:-</td>
</tr>
<tr>
<td>Anaphoric</td>
<td>ba-</td>
</tr>
</tbody>
</table>

From these roots we can produce demonstrative pronouns and a variety of demonstrative adverbs, abbreviated DemPro and DemAdv. DemPro forms are characterised by a special set of obligatory NC (noun-class) suffixes which is distinct from the NC suffixes used with personal pronouns (Chapter 6) except for some overlap in human nonsingular categories. For example, the ANA forms always have suffix /-ni/, as in /ya:-ni/, /da-ni/, /yuwa:-ni/ and /ba-ni/.

Among the DemAdv we may mention now Locative forms in /-ji/ (/ya:-ji/, /da-ji/) or /-gu/ (/yuwa:-gu/, /ba-gu/). These formations clearly justify grouping the four roots together as a morphological class distinct from personal pronouns and nouns. (The most closely associated forms are certain interrogative forms like /a-nil-ga/ 'where is it(ANA)?', see §13.8.)

The semantic distinctions among the four root categories are moderately tricky. In deictic (pointing) function the three relevant roots are Proximate, Immediate, and Distant. Prototypically, the Proximate forms relate to an area which crucially includes the speaker (depending on context-specific scope it may subsume the addressee as well). The Immediate zone is, by definition, not specifically Proximate, and often focuses on the addressee's location if contrasted with that of the speaker. The Immediate is also used for locations conceptualised as being within easy access (not necessarily closer to addressee than to speaker), for
The demonstrative system thus has special discourse functions, as well as the obvious reference-by-pointing function. Indeed, the discourse functions are more complex than indicated so far. To begin with, DemPro (unlike personal pronouns) take more-or-less regular nominal prefixes, including NCinfl prefixes ($§7.4$). There is thus a prefixal opposition, minimally zero (no prefix) vs. NCinfl prefix, with nonhuman categories further differentiating function from continuous forms of the NCinfl prefix if present.

As noted in $§4.8$, these oppositions have discourse functions (subject to skewing or neutralisation, as in negative contexts), though for DemPro the system is somewhat different ($§7.4$, below). DemAdv, like other NAdv ($§6.3$), are formally nouns of ANA class and thus can also take these NCinfl prefixes, though the most common adverbial forms are without prefix. Secondly, demonstratives (especially DemPro) have a special absolute suffix /-yun/, which is also sensitive to discourse definiteness ($§7.7$, below). A distinct type of definiteness is part of the meaning of another suffix, Concrete /-/, likewise limited to demonstratives ($§7.6$, below).

Third, aside from these discourse-sensitive affixes, demonstrative categories are important in narratives since they may be used opportunistically by the speaker to maintain referential distinctions. In what we will refer to as narrative perspective ($§7.26$), the speaker may adopt the point of view of an actor or of a hypothetical invisible observer, using (mainly Proximate and Immediate, sometimes other) demonstratives to differentiate two referents or two locations. Demonstratives like 'here' or 'along here' are commonly used to designate parts of the body (with a manual gesture) even with reference to actors in the narrative (e.g., 'they speared him here [point to belly]'), where English would prefer an explicit body-part phrase. In other words, Nunggubuyu tends strongly to telescope speech-event and narrative perspectives and thus to make extensive use of demonstrative categories. (See also the discussion of Lateral demonstratives, $§7.21$.)

It is also worth mentioning in this introductory section that Nunggubuyu demonstratives carry out some semantic functions commonly carried out in other languages by verbs. Specifically, differences between centripetal and noncentripetal motion (cf. English go/come, take/bring) are expressed in Nunggubuyu chiefly by demonstratives, which mark motion toward point of reference. (§7.5, below). For this and other motion markers see $§7.3$, below.

As in other languages, demonstratives in Nunggubuyu are concerned primarily with spatial (and discourse) rather than temporal orientation. For comments on the relationship between demonstratives and time orientation, see $§7.31$.

Cardinal direction adverbs ('north south east west up down inside') are formally unrelated to demonstratives, though they are included in this chapter for convenience ($§7.29$).

$7.2$ Forms of predicator (unprefixed) DemPro.
The basic forms are presented in Table 7-1. By definition, these forms permit no additional prefixation.

---

**DEMONSTRATIVE CATEGORIES**

<table>
<thead>
<tr>
<th>Deictic</th>
<th>Definite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distant</td>
<td>Anaphoric</td>
</tr>
</tbody>
</table>

*Example when speaker and addressee are sitting together and speaker indicates an object a few metres away, Immediate is also used for indefinite but roughly Proximate/Immediate location ('somewhere around here'). Distant is used for anything a few feet away, but ordinarily the Distant would be used to refer to something more than about 20 metres away. The choice between Immediate and Distant tends to be skewed (in favour of using the Immediate) in forms with Centripetal /-ala/ added to DemPro ($§7.7$, below). Moreover, the entire system may be skewed by adopting the perspective of an actor in a narrative ($§7.26$). Demonstratives are not always deictic, however. They may also be used, in Nunggubuyu as in English, to designate entities or locations which have been previously introduced into the discourse or which are otherwise in some fashion presupposed. I would like to use the term 'anaphoric' for this function, but since the function does not correspond one-to-one with usage of the Anaphoric root I will instead use definite. I must emphasise that this is an informal label for a type of function, not for a formal category; it is opposed to deictic (see above). See also $§7.6$. The Anaphoric root requires contextual definiteness of the location and/or referent. However, the Immediate root may be used back to something just mentioned, in this sense (most common with /da-ni:-'la-yung-gala-waj/ and /da-ni-yung/, see $§7.7$, $§7.9$) should be categorised as definite rather than deictic (unless we want to say that it is deictic but here used metaphorically). The Proximate root is neutral as to deictic vs. definite, in the sense that the Proximate zone is automatically definite (given an initial perspective). Thus the deictic/definite opposition applies most clearly to Distant vs. Anaphoric demonstratives. The situation is represented informally in Figure 7-1.*
TABLE 7-1

<table>
<thead>
<tr>
<th>NC</th>
<th>Prox</th>
<th>Dem</th>
<th>Dist</th>
<th>Anaph</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSG</td>
<td>ya:-g1</td>
<td>da:-g1</td>
<td>yuwa:-g1</td>
<td>ba:-g1</td>
</tr>
<tr>
<td>NA</td>
<td>10.3.3</td>
<td>1.33</td>
<td>11.3.4</td>
<td>8.7.3</td>
</tr>
<tr>
<td>FSg</td>
<td>15.1.2</td>
<td>20.15.2</td>
<td>43.14.4</td>
<td>19.3.5</td>
</tr>
<tr>
<td>NARA</td>
<td>20.16.2</td>
<td>204.3.6</td>
<td>24.2.5</td>
<td></td>
</tr>
<tr>
<td>MDu</td>
<td>ya:-wi-m1</td>
<td>di:-ni</td>
<td>yuwi-m1</td>
<td>bi:-ni</td>
</tr>
<tr>
<td>FDu</td>
<td>ya:-wi-ru1</td>
<td>du:-ru</td>
<td>yuwa:-ru</td>
<td>bu:-ru</td>
</tr>
<tr>
<td>Pl</td>
<td>14.7.4</td>
<td>40.14.1</td>
<td>MT17</td>
<td></td>
</tr>
<tr>
<td>WARA</td>
<td>ya:-wa</td>
<td>da:-wa</td>
<td>yuwi-ma</td>
<td>ba:-wa</td>
</tr>
<tr>
<td>NCs</td>
<td>ya:-wi</td>
<td>da:-wi</td>
<td>yuwi-mi</td>
<td>ba:-wi</td>
</tr>
<tr>
<td>ANA</td>
<td>ya:-ni</td>
<td>da:-ni</td>
<td>yuwa:-ni</td>
<td>ba:-ni</td>
</tr>
<tr>
<td>MANA</td>
<td>ya:-ma</td>
<td>da:-ma</td>
<td>yuwa:-ma</td>
<td>ba:-ma</td>
</tr>
<tr>
<td>NCs</td>
<td>ya:-ni</td>
<td>da:-ni</td>
<td>yuwa:-ni</td>
<td>ba:-ni</td>
</tr>
<tr>
<td>MANA</td>
<td>ya:-ma</td>
<td>da:-ma</td>
<td>yuwa:-ma</td>
<td>ba:-ma</td>
</tr>
</tbody>
</table>

Note: Numeral directly following form (on same line) indicates no. of occurrences in NMET texts. Figures under form (e.g., 10.3.3) are coded cross-references to passages in NMET; if no NMET citation is available a citation may be made relating to MT or TNT. The figures refer to textual instances with no following suffix (except a postposition).

The suffixes are therefore these:

-/-g1/ MSG/NA/FSg/NARA
-/-ni/ MDu
-/-ru/ Pl
-/-wa/ WARA
-/-wi/ MANA
-/-ma/ ANA
-/-ni/ MANA

It is noteworthy that DemPro distinguish Pl from WARA. However, WARA forms are not uncommon to refer to human collectivities.

For two noun classes we have a choice between /-Ca/ and /-Ci/ NC suffix (WARA, MANA). The distinction does not appear to be important grammatically, and the variant forms are more-or-less interchangeable. However, the available statistics suggest some asymmetries and correlations. First, for these NCs the /-Ca/ form is more common overall; the figures in Table 7-1 add up to 40 instances of /-ma/ vs. 8 for /-mi/, and 19 for /-wa/ vs. 4 for /-wi/.

Further analyses including other forms not yet introduced indicate the following on this point. DemPro with or without NC suffix, prefix, with no suffix (or with postposition only) show these totals:

/-ma/ 80 /-wa/ 46 /-mi/ 14 /-wi/ 11

Forms in which the immediately following suffix is Centripetal /-ma/, forming /-ma:-'la/, /-mi:-'la/, etc., are consistent with this asymmetry though the numbers are small:

/-ma/- 5 /-ma/- 3 /-ma/- 7

With immediately following Transverse suffix /-wa/ (becoming /-ya/- often after /-ai/-vowel), we get:

/-ma/- 0 /-wa/- 2 /-mi/- 9 /-wi/- 2

Here the /-mi/- instances include 4 with Prox /ya:-mi/- and 5 with prefixed Dist /am-uwa:-mi/. These data suggest a clear reversal of the preference for /-ma/- in the other forms given above, though no clear pattern emerges for /-wa/- vs. /-wi/.

With immediately following Locative case suffix /-ruj/- we have:

/-ma/- 9 /-wa/- 0 /-mi/- 3 /-wi/- 7

For the MANA forms we are back to the earlier preference for /-ma/-, suggesting that preference for /-mi/- before /-wa/- is an idiosyncrasy. The sudden preference for /-wi/- before /-ruj/-, if valid, is problematic.

When the following suffix is Absolute /-yun/6/7/, it seems advisable to distinguish instances involving Anaph root /ba/- from the exx. involving other roots:

Anaph other root
/-ma/- 23 /-wa/- 11 /-ma/- 0 /-wa/- 0
/-mi/- 9 /-wa/- 30

These data seem to indicate a preference for /-Ci/- before /-yun/-, except for the Anaph MANA instances where the reverse is found. The preference for /-Ci/- here may be influenced by the semivowel /y/- in the suffix.

The patterns suggest considerable fluctuation, but with some tendencies toward correlations with other affixes. Except for the data involving /-yun/-, there are no clear correlations between NC suffix vowel and the various demonstrative roots (thus, all roots prefer /-ma/- and /-wa/- with no further suffix). It is conceivable that further study might show some additional patterning, e.g., with /-Ci/- tending to refer to smaller referents than /-Ca/-, but no such patterns are clear to me at present.

Regarding the phonology of the forms in Table 7-1, note that for Prox /ya:-/ it is advisable to recognise an augmented form /ya:-wi/- in human nonsingular forms. Here the /y/- acquires surface...
vowel quality from the following syllable by V-Assimilation P-37. Note that the unaugmented roots (Imm, Dist, Anaph) also show P-37 in human nonsingular forms, thus //da-ni//= di-gi/. The Dist root /yuwa:/ not only undergoes this P-37, but also shortens its presuffixal vowel: //yuwa-gi//= yuwa-gi/ (P-37, P-41).

MDu ending //gi//, also found with personal pronouns, can also be analysed as //r-ni//= via rn-Contraction P-24 (not, however, a productive rule). Since FDu //-rngi/ can be further analysed as nonsingular //r-/ plus F //r-ni/, this reanalysis of //gi// as //r-ni// would give us a parallel structure. However, this is doubtful as a valid synchronic analysis.

7.3 Forms of nonpredicative (prefixed) DemPro.
Though somewhat irregular, the prefixed DemPro are essentially the

---

**Table 7-2**

<table>
<thead>
<tr>
<th>NC</th>
<th>Prox</th>
<th>Imm</th>
<th>Dist</th>
<th>Anaph</th>
</tr>
</thead>
<tbody>
<tr>
<td>M5g na:-'gi</td>
<td>15 5.8,4</td>
<td>na:-da-gi 0</td>
<td>nu:-wa-gi 2</td>
<td>nu:-ba-gi 17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or na:-da-gi 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P5g n'ara:-'gi</td>
<td>3 7.3,5</td>
<td>n'ara-da-gi 0</td>
<td>n'ara-ua-gi 0</td>
<td>n'ara-uba-gi 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or n'ara-da-gi 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDu na:-'wi-gi</td>
<td>0 1.11</td>
<td>na:-di-gi 0</td>
<td>nu:-'wi-gi 0</td>
<td>nu:-'bi-ni 8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or na:-di-gi 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDu n'ara:-'wi-rni</td>
<td>0 MT 8 7.3,5</td>
<td>n'ara-da-rni 0</td>
<td>n'ara-ua-rni 0</td>
<td>n'ara-uba-rni 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or n'ara-da-rni 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pl wara:-'wu-ru</td>
<td>3 28.27.1</td>
<td>wara-du-ru 1</td>
<td>war-ua-ru 2</td>
<td>war-uba-ru 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or wara-du-ru 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: See notes to Table 7-1, above. Figures to right of form are textual exx. in NMET with no further suffix (except postposition).

---

**Table 7-3**

<table>
<thead>
<tr>
<th>NC</th>
<th>Prox</th>
<th>Imm</th>
<th>Dist</th>
<th>Anaph</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAc na:-'gi</td>
<td>12 19.1,1</td>
<td>na:-da-gi 1</td>
<td>nu:-wa-gi 0</td>
<td>nu:-ba-gi 4 0 108.4,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or na:-da-gi 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nap yira:-'gi</td>
<td>0 MT 8</td>
<td>yir-da-gi 0</td>
<td>yir-ua-gi 0</td>
<td>yir-ba-gi 6 14.10.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or yir-ni-da-gi 0</td>
<td>yir-ua-gi 0</td>
<td>yir-ba-gi 0</td>
</tr>
<tr>
<td>N'ARA AC N'ara:-'gi</td>
<td>13 112.7.1</td>
<td>n'ara-da-gi 0</td>
<td>n'ara-ua-gi 0</td>
<td>n'ara-uba-gi 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or n'ara-da-gi 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N'ARA P [same as NA p]</td>
<td>0 [same as NA p]</td>
<td>[same as NA p]</td>
<td>[same as NA p]</td>
<td>[same as NA p] 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or yiri-da-gi 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>or yiri-nari-da-gi 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARA CP wara:-'wa</td>
<td>16 4.2.1</td>
<td>war-da-1 0</td>
<td>war-ua-1 0</td>
<td>war-uba-1 5 9.10.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or war-ua-1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>or war-uba-1 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANAC ana:-'ni</td>
<td>188 1.7,5</td>
<td>an-da-1 4</td>
<td>an-ua-1 5 136</td>
<td>an-uba-1 36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or an-da-1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>or an-ua-1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>or an-uba-1 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[continued next page]

---

Table 7-3

§7.3 275
We therefore recognize distinct word-initial and post-prefixed with post prefixal base forms //a:-// and //-uwa:-//, NC.

This is also the pattern with nouns.

The Anaph root takes the form //uwa/- in the prefixed forms. When preceded by a bisyllabic NCinf prefix like FSg/MApra prefix /Fa-ra/-, the prefix loses its final vowel by V-contraction P-46, since the root begins with a high vowel. With MsF/NA prefix /ma/- and with ANA, prefix /a/-, however, we get //mu/- and/or // by VV-contraction P-49.

For nouns, MApra forms with nouns is /yir/-.

The regular NA/MApra prefix with nouns is /yir/-.

The Anaph MANA variants /o/-ma and /o/-ma are not regular (in terms of prefix patterns in nominal morphology). Rather, they show extension of ANA prefix /a/-, as in /o/-ma, to the MANA class. This prefixal neutralization causes no harm in DemPro morphology, since (unlike nouns) these DemPro forms already clearly distinguish MANA from ANA forms by the NC suffixes /-ma/- or /-ma/- vs. /-ni/-, respectively.

The most serious irregularities are found in the Imm paradigm, which has unusual prefix forms like ANA /a/- (instead of /ana-), MsF or NA /ma/- (instead of /ma/-), and MANA /ma/- (instead of /mana/-). That is, the special Imm prefix forms are derived from the regular prefix forms by lopping off the second prefix syllable (if bisyllabic), and in any event lengthening the first prefix vowel; see Prefix-Truncation P-35. (This rule also takes care of some prefix alternations affecting certain kin terms.) This accounts for the human prefixes and the continuous nonhuman prefixes in the Imm forms. (Actually, the regular prefix forms unaffected by P-35 can be used in Imm forms, but they are not common.)

The punctual Imm forms for nonhuman NC are also messy. Forms like /an-uda-ma/ point to a post-prefixal root allomorph //uwa-/ parallel to post-prefixal Anaph root /uwa/-.

The Anaph root is sometimes used in some of the corresponding DemPro forms like /yir/-ga/.

These inserted forms resemble //uwa-/ prefixed forms like /an-uda-ma/ in Imm forms, with ANAp prefix.

Note: As in previous tables, figures indicate no. of NemEt exx. without further suffix (except postposition). Subscripts: (Punctual), (Continuous), §4.8.

Unprefixed forms shown in Table 7-1 with the addition of nominal NCinf prefixes; see Tables 7-2 (human) and 7-3 (nonhuman).

In the punctual NCinf form, NA and NAPra are identical (except for an optional differentiation in the Imm category), but they are distinct from MsF and FSg in this form. This is also the pattern with nouns.

In the prefixed forms, the initial //y// of Prox //ya/- and of Dist //yuwa/- is not seen, and the surface forms are compatible with post-prefixal base forms //ya/- and //uwa/-, respectively. We therefore recognize distinct word-initial and post-prefixal allomorphs for these roots. One could also formulate a minor rule deleting //y// in these combinations, or perhaps taking the //y// as inserted (in the word-initial form) by another minor rule. I prefer to say that we have allomorphs here, since the Imm and Anaph also show partly variant root shapes with no phonological basis.

The punctual Imm forms for NA and NAPra include unusual optional forms with /-ni/- (NA) or /-narih/- (NAPra) inserted between the usual NA/NAPra prefix /yi/- and the roots: /yir/-ni-da-gl/.

These inserted forms resemble NDe prefix //ni/- (NA) and //narih/- (NAPra), see §4.7, §4.9. The form /yir/-da-gl/ with the bisyllabic variant of prefix was, according to one informant, applied to NAPra but not NA referents; I suspect that it might also apply to NA, but in any event the form is rare.

The WARA forms in Table 7-3 do not distinguish continuous from punctual prefix forms, since this prefix opposition is possible in this NC only when the root begins with a consonant. The Prox, Dist,
and Anaph (postprefixal) roots begin with vowels, so */wara-/* is the only possible (underlying) prefix form, the distinctive WARAp variant */wa-/* being phonologically impossible before vowel. The remaining root, Imm, though (here) beginning with consonant, changes */wa-/* to */wa-/* by Prefix-Truncation in P-35 most of the time, so the continuative vs. punctual prefix opposition is basically merged here as well. The optional full form with */wa-/*, as in */wara-da-awa-/*, is perhaps explicitly continuous, but it seems that */wa-/* is most common regardless of "aspect" value.

7.4 Uses of predicative and nonpredicative DemPro.

For common nouns, it may be recalled, omission of the NC infl prefix is characteristic of nouns which are foregrounded, particularly in initial discourse occurrences. For human nouns, the alternative is the presence of the single NC infl prefix form. For nonhuman nouns, we have a further choice between continuous and punctual NC infl forms, an opposition whose significance is contextually variable and correlates with negation (requiring continuous prefix rather than punctual prefix or zero) and, in nonnegative contexts, with grammatical case/relation (§4.8, above).

For DemPro, the tables just given indicate that the array of formal possibilities is close to that seen with nouns; human DemPro have choice between presence and absence of NC infl prefix, and nonhuman DemPro have a three-way choice between absence of prefix, continuous prefix, and punctual prefix. With DemPro, however, the unprefixied forms are characteristically used in predicative function. In particular, a dual present positive predication of location is with a DemPro:

(7.1) ya:-gi na-walyi-n'um'n 'The man is here'
lic-MSg MSe-male-HumSg (or, 'Here is the man')

That is, the regular predication of location is of the type 'X [is] this/that' or 'This/That [is] X'. The DemPro may precede or follow the subject NP (if the latter is overtly mentioned), with initial position common.

If the literal translation 'X [is] this/that' is kept in mind, it will be seen that this construction cannot be used in negative contexts, and only with difficulty can be used in non-present tenses. A putative construction 'X [is not this/that' could not be a normal translation for English 'X is not here/there', since 'X [is not this/that' (a formulation presupposing a distinct referent in the demonstrative zone specified) would have another, simpler reading of the type 'X is not identical to this/that (person or thing)'. Instead, negative predications of location have a negative element */nai/ as predicate, with adjoined demonstrative adverb (§5.6):

(7.11) na-walyi-n'um'n ni:-=gi ana:-=ji
MSe-male-HumSg MSe-absent ANAc-Prox-Loc
'The man is/was not here'

For past positive 'X was here/there', a predicative DemPro may be used under limited conditions involving either narrative perspective, or the continuing (present tense) presence of at least some mark or imprint of the referent. In any event, an additional verb like 'he sat' is usually added. A corresponding construction with demonstrative adverb instead of DemPro is, in general, more likely:

(7.11i) ya:-gi ni=bura-nga-n'Y
lic-MSg MSe,=absent ANAc-loc
'He sat down here' (narrative perspective, or emphasising continuing visible imprint)

(7.1iv) ya:-ji ni=bura-nga-n'Y
Prox-Loc
'He sat down here' (usual form with adverb 'here')

Another alternative is to use a predicative DemPro which refers not to the person who sat down in the location, rather to the place itself. Since the generic noun /lha:l/ 'place, country' and place names generally are in the ANAc subclass of the ANA noun class, this means using /ya:-ni/ 'it (ANA class) [is] this' or some other predicative DemPro of ANA class:

(7.1v) ya:-ni ni=bura-nga-n'Y
this-ANA MSe,=absent
'He sat down here'

Note that whereas the uncommon type (7.11i) is literally '[he is] this, he-sat', the type (7.1v) is literally '[it is] this, he-sat', where 'it' refers to the (Prox) location. The problem with (7.11i) is that, except in special contexts, it is ruled out by the fact that the man who sat down is (presumably) no longer in the Prox region with respect to speaker and addressee at the time of the speech event, so that 'this' represents an inappropriate presupposition. On the other hand, (7.1v) presents no problem, since the location ('this [place]') remains in place. In other words, the ANA DemPro in (7.1v) is very close functionally to the Locative adverb in (7.1iv). However, as shown in (7.11i), the adverb (with obligatory ANAc prefix */ana-/*) is required in negatives.

Although /ya:-ji/ 'here' and /ya:-ni/ '[it is] this' are partly interchangeable in these exx., I consider /ya:-ji/ in (7.1iv) to be a constituent of the clause whose predication is 'he-sat', while (7.1v) syntactically constitutes a double-predicate construction. This is because /ya:-ni/ and /ni=bura-nga-n'Y/ are each perfectly capable of standing alone as predications, '[it is] this' (i.e., more loosely, 'it is here') and 'he-sat', respectively. The same is, of course, true of /ya:-gi/ and /ni=bura-nga-n'Y/ in (7.11i). However, the adverb /ya:-ji/ in (7.1v) specifies the location to which the predication ('he-sat') applies, but does not itself predicate anything. It is included within the scope of negation of the main predicate, shown in (7.11i). Textual occurrences of /ya:-ji/ 'here' or some other demonstrative adverb which lack an immediately juxtaposed main predicate are analysed here as involving ellipsis, with a verb like 'he was sitting' to be supplied.

Now for some textual exx. (from NNET), first with predicative Prox /ya:-gi/ (MSe, MSe, NA, N'ARA) '[is] this'. We give exx. in informal translations where each word corresponds to a Nunggubuyu word but where word-internal hyphens in the translation do not match.

§7.3, §7.4

278

§7.4

279
Nunggubuyu morphemes. In 10.3 we have a quotation, 'along-here and it[Brolga] speaks _ now-there let-go' (i.e., I hear the sound of Brolga [bird] over here, let's go), where _ marks the location of /ya-\-gi/ (here N\-ARA). Similarly 11.10.3 let-go, branch, let's-pick-it-up (let's go pick up the branch over there). In 11.2 'crow it-defaced' (i.e., crow has defaced here), despite past tense and absence of narrative perspective, uses /ya-\-gi/ since the excrement constitutes the enduring visible mark of crow's former presence. (The relevant words for 'branch' and 'crow' are NA class.) Narrative perspective with DemPro and noun are /ya-\-gi/, where _ marks also 15.11.1 'he-sat he-looked and _ came along holding the spear and there he stood with it) where the sound of Brolga [bird] over here, let's go), where __ marks also 15.11.1 'he-sat he-looked and _ came along holding the spear and there he stood with it) where the sound of crow's former presence. (The relevant words for 'branch' and 'crow' are NA class.)

Because NMET contains mostly past-tense narratives, 100.3.1 apart), 41.6.2, 43.9.1, 47.23.6, 72.3.5, 74.4.1-3, 79.1.3, 100.1.5, here (but temporarily absent)' or 'who was just here'. The other exx. of /ya-\-gi/ are 19.2.2/3 (again, used as referential index to keep turtle distinct from other actor), 34.1.4, 34.2.6, 34.4.1, 34.7.3, 71.5.4, 73.4.1, 170.3.3 (added to man's name), 170.4.1. Other exx. of /ya-\-gi/ include 5.8.4, 15.14.2, 19.1.3 and 161.6.2 (added to man's name), 157.1.2/5. The full Similative form /ya-\-gi-wuy na-wiri-nYun g / 'for[to] that boy', with suffix added to MSg Anaph DemPro /nu:-'ba-gi/. See also §15.2. Moreover, as explained in §4.18 and elsewhere in Chapter 4, case-marking in general spelling in somewhat 19.1.3. The prefixed DemPro corresponding to /ya-\-gi/ are MSg and NA\_ /nu:-'ba-gi/, MSg and NARA /na:-'-gi/, N\-ARA /\-ara:-'-gi/ and NA\_ /\-ara:-'-gi/, see Tables 7-2, 7-3. Exx. of /nu:-'ba-gi/ include several where this DemPro is clearly used to refer to a presupposed entity than to a concrete location. For example, it was used by speakers to refer to the linguist, e.g., 7.16.2, 47.9.6, 64.9.7, 161.35.6. Other exx. of /nu:-'ba-gi/ are 5.8.4, 15.14.2, 19.1.3 and 19.2.2/3 (again, used as referential index to keep turtle distinct from other actor), 34.1.4, 34.2.6, 34.4.1, 34.7.3, 71.5.4, 73.4.1, 170.3.3, 170.4.1. In some of these instances, /nu:-'ba-gi/ is added to the name of a plant sp. or whatever simply to indicate that the plant is found in the vicinity; thus in 170.3.3 the phrase /\-na-yalgurg nu:-'ba-gi/ 'this tree orchid' does not presuppose that the speaker is pointing to a given specimen or even that orchids are immediately visible, rather merely that orchids can be found nearby.

Attentions of /\-ara:-'-gi/, the FSg and N\-ARA, form are, 7.4, 7.5, 13.2, 13.5.2, 33.3, 23.1.1, 33.5.2, 35.2.2, 65.11.3/5\_7, 73.5.8, 112.7.1, 112.8.1, 116.2.3, 167.4.1. The NA\_ and N\-ARA, form /\-ara:-'-gi/ does not occur (except with case suffix present) in NMET (but cf. MT 8).

For nonhuman NC, choice between continuous and punctual prefix is based on essentially the same principles spelled out for nouns in §4.8. That is, negative contexts require continuous form; in other contexts the continuous is regular for subject and (usually) direct object, while punctual is common (though not required) for spatial cases like Allative-Dative /\-g/wuy, Allitative /\-g/ala/.

Pergressive suffixes /\-a/ and /\-a/, and locative /\-ru/, as well as the nonspatial Similative /\-g/, have not yet covered overt case-marked forms of demonstratives since they present several departures from nominal usage; the figures in the tables above (7-1, 7-2, 7-3) do not include case-marked forms.

However, in addition to overtly case-marked DemPro forms, there are also many NP-like combinations of DemPro with following referential noun. In such combinations, if the whole NP is in a grammatical relation calling for a marked case suffix, the suffix may be added to give perspective to the NC (just the DemPro, or to just the noun. Both DemPro and noun are typically in the punctual preffix form (if appropriate for the case category) regardless of which one gets the case suffix in the exx. with just one case suffix. Thus in 14.10.2 we see /yi-\-ba-gi yi-m/\-ala\_lgi-ruj/ 'at that (Anaph) turtle(NA class)' (i.e., 'at the place where the turtle was'), where the DemPro is /yi-\-ba-gi/ instead of the Full Locative form /yi-\-ba-gi-ruj/, and where both DemPro and noun have punctual NA prefix /yi-/. Both DemPro and noun have case marking in 101.3.4, but there is no pause between them: /\-yigi-ruj, yi-m/\-bi\_bi\_yun-guy/ 'to this one, to the mother(NA class)' The type with case-marked DemPro and no suffix on the noun is less common, but note 5.20.5 /nu:-'ba-gi-ruj na-wiri-n\-urj\_0/ 'for[to] that boy', with suffix added to MSg Anaph DemPro /nu:-'ba-gi/.

A very important component of the demonstrative system is a set of three suffixes implying motion (activated or expected) between two reference points. In the primary constructions to be discussed in this section, the three suffixes listed above are mutually exclusive. There is thus a four-way opposition between an unmarked static category and the three marked categories. We now describe uses of /\-a/, /\-al/ and /\-aw/ with DemPro. These suffixes are also used in adverbial formations discussed in later sections.

§7.4, §7.5

280

7.5 Centripetal /-ala/, Centrifugal /-al/, Transverse /-aw/.

A very important component of the demonstrative system is a set of three suffixes implying motion (activated or expected) between two reference points. In the primary constructions to be discussed in this section, the three suffixes listed above are mutually exclusive. There is thus a four-way opposition between an unmarked static category and the three marked categories. We now describe uses of /-ala/, /-al/ and /-aw/ with DemPro. These suffixes are also used in adverbial formations discussed in later sections.
There are no important phonological difficulties in connection with the motion forms of DemPro. Centripetal /-ala/ and Centrifugal /-al/ will always undergo V-Contraction P-49 since the DemPro stems to which they are added all end in vowels; thus //a-a/→/a\+a/→/a\+-/→//a-a//→//a-a//. The predicative (unprefixed) DemPro forms are shown in Table 7-4, though for /-ala/ we indicate only forms citable from the texts. Transverse /-waj/ may show up as //-ya/ (after /i/ or /a/ (after /a/), though the transcriptions given in the table show /-waj/.

Centripetal /-ala/ is semantically close to Ablative case suffix /-waj/ (with nouns, see §4.23). Synchronously, I would say that they are distinct but closely associated affixes, see later (§7.6) that a combination of the two, /-ala-waj/, is possible in demonstratives. Centrifugal /-al/ is unique to demonstratives. Transverse /-waj/ is semantically close to Progressive nominal case suffixes /-yaj/ and /-gi-waj/ (§6.23), but again there are some differences and I prefer to label Transverse /-waj/ with a different term.

The forms in Table 7-4 are followed by numerals indicating no. of occurrences in NMET (a few forms not found in NMET are shown with an attestation in Hughes’ text collections, MT and TNT). The totals are (for NMET only): 105 Centripetal, 13 Centrifugal, and 21 Transverse. As usual, these figures are for the forms shown with no further affixes (except postpositions). There are many other exx. involving these same forms along with other prefixes and/or suffixes, in adverbs, and in special derivatives like the (mostly re-}
In the ex, just given ('There he comes'), the referent is in motion from (a) to the speaker's location (b). However, in Nunggubuyu the Centripetal is also frequently used when one or more of the immediate participants in the speech event (excluding the speaker) are in motion toward the referent (who may be static), so that the motion is from (b) to (a). In English, this kind of shift in perspective is usual only when the speech-event participants are in vehicles (in which case we may talk of a building 'coming up on' the speaker, etc.). In Nunggubuyu, the perspective shift is much more common. If you and I are walking around in the bush looking for something, say a coconut palm, if I spot one I will normally say to you /da-ma:-'la ma=la-ya/ 'There (Im-Centrip) it stands'. Here /da-ma:-'la/ (MANA class) by itself could be translated 'There it comes', but of course the palm is in a fixed position, and indeed if we add a verb it will be something like /ma=la-ya/ 'it stands' instead of a verb of motion. Moreover, the motion from (b) to (a) need not be actualised at the time of the speech event. If you approach me (from whatever direction) and ask me, 'Where is So-and-So?', I may point to a man sitting under a tree after finding out where he is.

This is appropriate if and only if I assume that you will go over to (b) to (a), but that need not be actualised at the time of the speech event. If you were to ask where your mother-in-law is, I would not use /ma=la-ya/ since I assume that you will not approach me (b) to (a), which is an outrageous infringement of native custom.

In the case of ANA class forms, the Centripetal may be used with reference to motion which has occurred or will occur, regardless of tense. This is because the ANA forms often refer to the proximate (read 'perspective'), not the trajectory (read 'reference rather than to the action'). To translate English 'He came along here', one can say /ya:-ni:-'la ni=ma-gi:ll/ (118.1.2). 'Here (Dist-Centrip) he went' (where 'to go' in Nunggubuyu does not exclude motion in a centripetal direction). Hence /ya:-ni:-'la/ can mean 'along here'. Centripetal DemPro of other classes are used under stricter conditions in past tense contexts ($7.26$).

Textual exx. of predicative Centripetal DemPro (Table 7-4) are:

- /ya:-gi:-'la/ 161.8.1, 2.3.1, 161.7.9; /ya:-wa:-'la/ 45.10.2, 15.7.2; /ya:-ni:-'la/ 15.8.1, 30.3.5 (past tense, hence with narrative perspective). 40.14.2 ('lost' locative clause), 143.4.4/5 (past), 143.12.4, 161.34.5 (past), 166.17.3; /ya:-wi:-'la/ 18.13.7, 20.12.2/3, 20.13.3/4; /ya:-ni:-'la/ 15.7.2, 10.3.1/2 (past), 10.14.3, 13.7.2, 14.12.1, 18.8.6 (they saw island coming up), 18.10.4 (ditto), 18.18, 20.17.4, 21.6.3, 35.2.2, 45.12.7, 55.11.2, 113.7.3. /ya:-wa:-'la/ 55.3.4, 127.4.3 (static tree); /ya:-ni:-'la/ 18.21.3 and 20.16.2 (stone-hills coming up); /da-ma:-'la/ 19.4, 5.18.3 (past), 10.17.4 (past), 69.3.1 (past); /di:-rn'i:-'la/ 40.4.4 (past); /di:-rn'i:-'la/ 11.4.1.1 (past); /di-ru:-'la/ 69.7.1, 166.19.1 (past); /ta:-nu:-'la/ 18.13.6 (past), 29.3.4 (past); /bairi:-'la/ 70.1.2 (past); /da-ma:-'la/ 55.3.1; /yuwi:-rn'i:-'la/ 34.4.4 (past), 34.5.1, 14.2.4 (tree); /yuwi:-rn'i:-'la/ 11.10.1 (past); /yuwi:-wa:-'la/ 9.14.3, 14.12.8; /yuwi:-ni:-'la/ 15.8.4, 18.9.5, 21.3.2, 31.1.2, 35.1.1, 161.27.2; /ba-qi:-'la/ 12.9.4 (past), 24.1.2/5 (past), 65.10.2, 95.2.6 (past); /bi-ru:-'la/ 13.19.2 (past), 13.28.3 (past); /ba-ru:-'la/ 42.5.5; /ba-ni:-'la/ 1.8.10, 5.16.1, 9.3.4, 18.15.4, 19.8.4, 21.9.5, 22.4.4, 23.1.2, 23.2.3, 24.3.4, 26.1.1, 28.12.6, 29.7.1, 35.1.2, 35.2.1, 35.20.1, 40.12.1, 42.5.4, 45.6.5, 52.5.3, 55.2.5, 55.6.1, 94.3.6, 125.11.2, 161.3.7, 162.7.3; and /ba-ma:-'la/ 9.4.2 (tidal coming in), 21.4.5 (floodwaters coming), and 163.3.3 (vehicle).

Some uses of /ba-ni:-'la/ (see list just above) involve the appearance of celestial bodies (40.12.1, star) or of the dawn (52.5.3, 125.11.2), but not by agreement with the NC of a particular noun. The ex. in 94.3.4 involves a sound coming from afar, and is consistent with the regular use of motion or directional elements in connection with speech and noises.

Centripetal forms can also be made from prefixed (predicative) forms of DemPro, though they are less common than the predicative ones already illustrated in Table 7-4 and the lists of exx. just given. The non-predicative forms are used with NPs which are clearly just part of the argument structure of some other predication, so that the Centripetal marker (and the location in general) is not focal.

We can cite the following forms with their textual occurrences:

- Proximate forms of DemPro (Table 7-4) are:
  - /ya:-ma:-'la/ 21.7.1; /ana-/-ni:-'la/ 113.5.6, 120.1.5 (negative); /a-/-ni:-'la/ 7.14.3 (cloud), 35.10.1, 125.12.5; /ana-/-ma:-'la/ 13.7.1 (excrement); zero Immediate forms; Distant forms:
  - /ma=la-ya/ 161.27.2 (people coming from south), 116.1.3 (water lilies); /an=ma-ni:-'la/ 161.3.4, 161.3.6, 161.1.3, and some 30 exx. of Anaph /an-uba-ni:-'la/ sometimes meaning 'from there' but often in temporal sense 'after that', e.g., 2.5.4, 7.9.3, 8.5.2, 8.6.2, 9.10.3, 16.19.4, 24.3.3, 41.1.6, 42.1.5, 51.1, and several others.

- Centrifugal forms are not concerned with the destination of a trajectory (in the way Centripetal forms are). Instead, they focus on a limited portion of the trajectory within (usually) the Prox category (as is also the situation with adverbs involving I-alii). Centrifugal forms are not concerned with the destination of a trajectory (in the way Centripetal forms are). Instead, they focus on a limited portion of the trajectory within (usually) the Prox category (as is also the situation with adverbs involving I-alii). Centrifugal forms are not concerned with the destination of a trajectory (in the way Centripetal forms are). Instead, they focus on a limited portion of the trajectory within (usually) the Prox category (as is also the situation with adverbs involving I-alii).

We now consider Centripetal /-ni/-/11/4. We will find this to be a common suffix in lateral derivatives such as /ya:-ji-/-ni/-/, on this (the near) side' ($7.21$), and in some unreduplicated adverbs such as /ya:-ji-/-ni/ (see §7.16). However, as Table 7-4 indicates, we find relatively few instances of /-ni/ with predicative DemPro. They are overwhelmingly concentrated in the Prox category (as is also the situation with adverbs involving I-alii). Centrifugal forms are not concerned with the destination of a trajectory (in the way Centripetal forms are). Instead, they focus on a limited portion of the trajectory within (usually) the Prox zone, and normally specifically indicate that the trajectory is limited in this zone. Thus the focus, if anything, is on the point of departure rather than the destination. Let us consider the textual exx. for /-ni/-/1. We find /ya:-/-ni/-/1 in 18.10.4 (stabbled him here in the throat), 47.12.6 (here I speak, tomorrow I go to another place), 47.12.6 (I know words [i.e., myths/customs] starting here at [place n]), 18.14.8 (from here and that way, to the south), 119.7.4 (tree from here going north), 161.3.4 (came here to the mainland, was eating dugong alo from here), and 165.6.1 (let's go back from here). We have /ya:-ma/-/1/ four times in text 40.13.5, 40.14.1 referring to a path or track (MANA class) which is going along from here, Note that /ya:-/-ni/-/11/ normally refers to locations (ANA class) rather than actors and thus has functional
affinities to adverbs, and the exx. with /ya:-ma:-'li/ refer to the path rather than to persons or objects in motion. The form /yuwa:-ni:-'li/ cited in Table 7-4 is actually unclear on the tape (5.16.5) and may be erroneous; it involves the Dist root.

A handful of prefixed (nonpredicative) Prox DemPro with /-u/- are recorded: /a:n/-ni:-'li/ 125.13.2, 166.8.11 /a:-m/-ni:-'li/ TNT 19 ("anili").

The Centrifugal forms, as noted, do not specify destination or even the broad direction of the trajectory. However, in several of the exx. just cited, they co-occur with a cardinal-direction adverb, another demonstrative adverb, or an Allative NP specifying endpoint or direction of motion. This brings us to Transverse /-u-/. As Table 7-4 shows, a number of forms are attested for the Prox, Dist, and Anaph roots. The Dist root is not represented for the simple DemPro Transverse type, but would be represented if we allowed combinations including Concrete suffix /-u/-, which is particularly common with the Imm root and which is attested several times with following /-waJ/.

The forms citable from NMET related to Table 7-4 are these: Prox /ya:-gi-waj/ 15.10.4 (he went past him); while he was sitting along here); /ya:-wa-waj/ 9.5.5 (one group was over there and the other was along here); /ya:-ni-waj/ 13.39.3 (it was this deep); 13.44.1/2 (rising water was up to here) (manual gesture on belly); 15.9.6 (was hidden in scrub up to here, up to his upper back), 33.4.5 (stood with water up to here), 132.2.1 (dug hole this deep [i.e., up to here]); /ya:-ni-waj/ 12.10.2/3/4 (tide was up to here on them); Dist /yuwa-gi-waj/ 108.1.4 (pulled up large plant, this long [approx. meaning]); /yuwa-ya-waj/ 9.5.4 (one group was going along over there [and the other was along here]); /yuwa-wi-waj/ 7.1.2 (they were going along over there, to the Ngandi [tribe]); Anaph /ba:-gi-waj/ 18.14.5 (there he goes now!); /bi:-ni-waj/ 5.3.7 (they were going along there); /bu-ru-waj/ 14.14.2 (they were paddling along there); and /ba:-ni-waj/ 113.9.6 (we stayed in that area), 120.2.1 (we don't have that tree sp. in our country, we'll stay in that area), 166.3.3 and 167.7.4 (were hunting trepang around there [list of several place names]). In addition to the predicative forms just given, we can cite some prefixed DemPro as well: /a:n/-ni-waj/ 12.10.4 /a:-m/-ni-waj/ 123.4; /vi:-ba:-gi-waj/ 103.2.1 (eating giant clam [exact sense unclear]); /var-ya:-wa-waj/ 119.6.5 (all those people along there were cutting up fruits); /or-ya:-ni-waj/ 108.7.1, 162.14.3; and /an-ya:-ni-waj/ 116.8.6, 113.3.4, and three times 162.2.1/2 (skinning off bark).

These are fairly crude translations, but we seem to have the following closely related meanings: a) referent moving along in some axis not specifically centripetal, perhaps prototypically across the line of sight of speaker (hence 'Transverse'); b) location fuzzy or vaguely defined ('around there'); also a complex of several nearby locations; c) group of referents, especially when strung out in a line or similar formation; d) measuring height of water or hole with reference to body ('up to here') with accompanying manual indication.

The common denominator for the Transverse DemPro forms seems to be that there is an axis of motion (usually straight but sometimes crooked or zigzagged) not crucially defined as having the speech-event (or narrative) 'here' as starting or ending point (though the demonstrative root itself may be Prox, when the entire trajectory is within the Prox region, or in cases like 'water was up to here' where the rising water constitutes a broad geometric plane which cannot be visualised as being aimed at a particular point). The primary senses of the motion suffixes are represented schematically in Figure 7-2.

One final point which perhaps was not made clearly enough in the preceding discussion is that linear extent and motion are effectively interchangeable in connection with these suffixal categories. That is, some of the exx. cited involve a stretch of land, a path, a roughly linear array of persons or things, or something like water or a hole of a certain (specified) depth. In these cases the referent(s) need not actually be moving physically. However, even in such objectively non-moving instances, we can argue that the entities or zones are conceptualised as vectors, with a starting point and/or a target or end point. Perhaps we could speak of metaphorical motion here; cf. English 'My property goes from here to that fence' and related expressions. However, Nunggubuyu differs in that it does not use motion verbs in such contexts; if a verb is used it will be 'sits' rather than 'goes'.

7.6 Concrete /-u/.

This suffix is very common with Imm demonstratives of all types. It is also combinable with Anaph demonstratives but is much less
common in this category. It is not used with Prox or Dist roots. The exception is that it is part of a frozen suffix sequence /-u/-way/ used to form Directional adverbs, almost exclusively with Imm and Prox roots (§7.4).

Phonologically, /-u/ added to a DemPro is manifested by a surface long /u/ regardless of the quality of the preceding underlying vowel: /da-gi/ vs. /da-gii/-, /da-ma/- and /da-mii/- vs. /da-mu/-, /da-runggii/-, /da-ru/- vs. /da-ru/-'. Note that the difference between MANA endings /-ma/ and /-mi/ is phonologically neutralised here; the same is true of WARA endings /-waf/ and /-wii/.

Concrete /-u/ precedes Transverse /-waj/, as in a-ma:- -waJ

Concrete simple forms in Table 7-5, below, we can see that the Concrete forms constitute about 3% of predicative Imm DemPro, but over 90% of nonpredicative Imm DemPro (based on NMET texts). This shows that the Concrete suffix is not exceptionally common when Imm location is foregrounded (predicated). In the textual corpus, predicative Imm DemPro are particularly common in contexts of the general type 'X took a look and there was Y' /'X ni-warangga Y nga da-gii Y/, with narrative perspective determining choice of Imm root; this is a common way of saying 'Y appeared' or 'X saw/noticed Y'. Since, however, the Concrete suffix is very common with nonpredicative DemPro, which usually designate referents who are already socially present (i.e., visible to speech-event participants), or who (in narrative perspective) have already been mentioned, it would seem that the Concrete suffix tends to argue some presuppositions about the referent and/or the location.

The nonpredicative DemPro shown on the right in Table 7-5 were also analyzed in terms of their syntactic roles. There were some coding problems and in some instances it was necessary to make a judgement as to which clause-like sequence the DemPro belonged to if there were two possibilities. The preponderance of the 76 codable Concrete forms, such as /na:-da-gii/- and /ai:-da-mii/-, were one-word NPs functioning as subjects of a nonverbal predicate (29%) or were otherwise one-word NPs or separated from other segments of the same NP by a pause or another word (41%). Other categories were: immediately preceding coreferential noun (12%), immediately following noun to finish NP (11%), and use in connection with 2nd person pronominal (9%). Only 7 simple (non-Concrete) forms like /na:-da-gii/ and /ai:-da-mii/ were codable; 3 directly preceded coreferential noun, 2 were subjects of nonverbal predicate, and 1 each were after coreferential noun and separate NP.

Subject of nonverbal predicate, e.g., 'That (one) is bad', tends strongly to involve a presupposed subject referent, with the adjective or other predicate highly foregrounded. In the computations just reported I found 22 instances of Concrete form and only 2 of non-Concrete (simple) nonpredicative DemPro. Moreover, the 2 simple DemPro occurred in one passage /'wa:-da-waj/ 7.11.1 and /wa:-da-mii/ 7.11.2/ where the context was 'Who is [it] that/this [who] hid it from me?'. Since the predicate here is an interrogative ('who?'), this is an exceptional case in which the subject of a nonverbal predicate does not have a presupposed identity or location. The use of Concrete form /a:-da-mii/- (ANA class) as a redundant 2nd person marker (see §7.27) may be accounted for by observing that the addressee is, more or less by definition, the addressee favours use of the Concrete suffix, since this location is at the core of the Imm region and in the sector most strongly presupposed by the speech event. However, my understanding of the
unpublished allotted data on this matter is that the Concrete suffix is not used when the location is vague (as in 'it must be elsewhere around here/there'); this was the main reason I chose the label 'Concrete' in the first place.

Another important factor circumscribing the use of /-u/ with the Imm root is competition with another suffix /-yun g/, which we label 'Absolute' (following section), but whose meaning involves a discourse-summative element. That is, /da-ni-yun g/ [it is] that the Imm root is competition with another suffix /-yun g/, which we and not Concrete most common at the end of a text as part of the coda). There is somewhere a discourse-summative element. That is, /da-ni-yung/ is thus most common, Concrete /-u/ is also possible. I heard such forms was observed that stylistic lengthening was typical in the first syllable, hence /ba:::-nu:-'/. Unfortunately, I cannot find a single textual ex. involving a DemPro; in NMET I counted 79 occurrences of /-u/-wu y/, which produces Directional DemAdv for Prox and Imm roots: /yari-nu:-'way/' this way, 'da-mu:-'way/

The suffix /-yun g/ is a meaningless but stylistic lengthening for emphasis) is more emphatic about the anaphoric nature of the location (e.g., 'X is in that very place'). Its low frequency is due to the fact that the Anaph root is already by definition anaphoric, and to competition from Absolute /-yun g/. The relatively high frequency of adverbial /bu-gunu:-' is due to the fact that /-yun g/ cannot co-occur with this (Allative) formation. Finally, as already noted, /-u/-w is a meaningless, obligatory part of the sequence /-u/-way, which produces Directional DemAdv for Prox and Imm roots: /yari-nu:-'way/' this way, 'da-mu:-'way/

For more quantitative information and textual exx. of these DemAdv types, see the relevant sections below.

Absolute /-yun g/ and Absolute Dual /-yung-ba:/

The suffix /-yun g/ found with demonstratives has a phonological similarity to Human Sg. /-yun g/ or /-u/ with nouns (§4.15), 3rd person possessive suffix /-yun g/ or /-u/ with kin terms (§5.2), and Contrastive /-yun g/ with independent personal pronouns (§6.8); cf. also Dual /-yung-ba:/ instead of usual Dual /ba:-'ru:-/ with kin terms (§5.3). However, it is doubtful that there is any clear synchronic connection among these forms because of their distinctive functions, and even the phonological form is somewhat divergent.

Absolute /-yun g/ is added to DemPro under certain conditions. It is advisable to discuss it first (in this section) in its most basic combination, as the sole suffix added to a DemPro form (predicative or nonpredicative). In §§7.9 and §7.10, below, we discuss some suffix combinations in which it is a part, such as /-yung-ba:/ with Centripetal /ala:-/. A major justification for this is that /-yun g/ cannot be added directly to Locative DemAdv like /ya:-'ja:/ 'here' and /ba:-'gu:/ 'there(Anaph)'. As expected, it cannot co-occur with parallel forms based on the Dist root, hence /yung-ba:/ 'to there' but not /yung-ba:/.

The exact sense of forms like /ba-nu:-' is hard to determine in the absence of textual exx., but in comparison to simple /ba-ni/- it would seem that /ba-nu:-' (or /ba:-'ni:-/) with stylistic lengthening for emphasis) is more emphatic about the anaphoric nature of the location (e.g., 'X is in that very place'). Its low frequency is due to the fact that the Anaph root is already by definition anaphoric, and to competition from Absolute /-yun g/.

(Another suffix, Instrumental /-nir/ in a specialised sense, is also a competing suffix; see §7.19.)

We mentioned earlier that /-u/-w may follow Centripetal /ala:/ (§7.5, above). The exx. of /-a-ni:-'lu:-'/ 'There(IMm) it(ANA) comes' are 30.1.1, 45.10.5, and 70.1.2. An Anaph form /ba-ni:-'lu:-'/ occurs in MT 9.
TABLE 7-6

<table>
<thead>
<tr>
<th>Imm</th>
<th>Prox</th>
<th>/da-ni/</th>
<th>/-yun/</th>
<th>other Dist Anaph</th>
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<td>4</td>
<td>0</td>
<td>21</td>
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<tr>
<td>0</td>
<td>34</td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
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<td>22</td>
<td>20</td>
<td>34</td>
<td>121</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>/-yun/</th>
<th>/-yun/</th>
<th>/-yun/</th>
<th>/-yun/</th>
<th>/-yun/</th>
</tr>
</thead>
<tbody>
<tr>
<td>with Concrete /-u/</td>
<td>with /-yun/</td>
<td>with /-yun/</td>
<td>with /-yun/</td>
<td>with /-yun/</td>
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<tr>
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<td>16</td>
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<td>16</td>
</tr>
<tr>
<td>159</td>
<td>20</td>
<td>16</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: Figures are no. of occurrences in NMET with no further suffix (except postposition or Du). Important cases of Absolute /-yun/ are circled.

The high-frequency form /da-ni-yun/ is used chiefly as a discourse-summative element in the coda of texts. Quite often it is found as a one-word "period" signaling the end of the text (for the benefit of the linguist perhaps), and might be roughly translated 'that is it'. It can also be used to end an episode within a text, or just as an occasional aside ('that is what it was [in the old days]'). Occasionally it is part of a fuller expression such as /an-uba-ni-yun / 'the words (in hunu) of the elders', in which /-yun/ is the predicate, with the noun /hunu/ 'words, speech' (also by extension 'customs, myths') as subject. Representative exx. of this function of /-yun/ are 13.4.4, 15.2.6, 40.16.4, 43.7.4, 47.2.8, 47.3.6 (several others in text 47), and 52.7.5.

The other highest-frequency forms with /-yun/ are nonpredicative Prox with ANaph root /ba-/, hence ANA /an-uba-ni-yun/, N/A /nu:-'ba-~/, /an-uba-ni-yun/, /man-uba-ma-yun/ etc. (including forms with punctual instead of continuous NCInf prefix). As shown in the table, the majority of ANaph nonpredicative DemPro have /-yun/. Further analysis shows that the ANA form has more occurrences without /-yun/ than /-yun/ /-yp/ and punctual /-yun/. In other words, the basic point is that, while /-yun/ is essentially always possible with Anaph nonpredicative DemPro, it is most often found when the DemPro is not tightly bound to a following coreferential NP and is thus in syntactically independent (absolute) position.

Sample textual exx. from NMET are: /nu:-'ba-~/yung/ 21 vs. /nu:-'ba-~/yung/, 193. My 136 occurrences, /o:-'ba-ni/ 23, vs. /an-uba-ni-yung/, 93. However, this is more than made up by the days. Occasionally it is part of a fuller expression such as /man-uba-ma-yung/, etc. (including forms with discourse-summative element in the coda of texts. Quite often it is

Statistically, omission of /-yun/ is more common with nonhuman NC categories than with human ones, as is suggested by the comparison above of ANA and MSg/NA (MSg outnumbering NA in the latter). However, I doubt that this is an independent factor, since it is likely that this asymmetry reflects the fact that /an-uba-ni/ (ANA) is more often directly followed by a noun than is a human DemPro like MSg /-ba-~/. In other words, the basic point is that, while /-yun/ is essentially always possible with Anaph nonpredicative DemPro, it is most often found when the DemPro is not tightly bound to a following coreferential NP and is thus in syntactically independent (absolute) position.

We now have the more difficult task of accounting for /-yun/ in forms like /an-uba-ni-yung/ in cases like /an-uba-ni-yung/, even in many instances involving a following coreferential noun where I did not clearly hear the /-yun/, and perhaps had I strictly followed my own ears the correlation of /-yun/ with syntactically absolute position would have been better.
display emphasis on the anaphoric aspects of Prox, especially when the Prox category has been used in the preceding discourse and the point is that someone or something is 'still here' or 'right here'.

Predicative DemPro: with /-yum-ba:/ we cite these exx.: /ba-gi-yum/ 40.2.1, 94.4.3, twice 78.1.4/5; /ba-ni-yum/ 8.5.3, 18.20.5, 48.2.4, 60.3.6, 76.2.4, 98.7.2, 115.6.4, 139.2.4, 161.33.1, 166.23.1, with postposition 47.14.2; /bu-yum/ 108.8.4;

/-wa-yum/ 76.1.6 and /ba-wi-yum/ 47.15.4; /ba-mi-yum/ 112.3.1, 120.3.5, with postposition 143.7.5. A typical gloss is 'in/ was in that same place'.

There are only a few exx. of Prox or Imm nonpredicative DemPro with /-yum/; Prox exx. with some indication of context: /ma-re-gi-yum/ 22.12.2 ('this man who was just here'); /ma-re-gi-yum/ 65.10.14 and 65.11.2 ('this Brolga[song cycle] has just been changed'); /ana:-'ni-yum/ 97.1.2 (unclear), twice 161.14.2 ('this mission was originally going to be built in another location'). It is hard to pin down the contribution of /-yun g/, but all exx. involve some kind of opposition or tension between two locations or two referents, and there is thus a contrastive nuance. Of the 3 Imm exx., two are /ai-da-ni-yum/ 70.2.5/6 in essentially the same discourse-suggestive function mentioned above for predicative /da-ni-yum/, while the other is /wada-ni-yum/ 162.18.4 referring to a referent (buffalo) present in the preceding discourse. Note in Table 7-6, above, that Concrete /-u/ is much more common than /-yun/ with nonpredicative Imm DemPro and is the usual suffix for giving a definite or anaphoric tint to these DemPro (except when discourse summation is explicitly involved).

DemPro with /-yun/ do not permit dual suffix /-a:/ since Mdu categories are marked within the DemPro stem (and since Du is not marked without nonhuman Prox). Thus Mdu Prox /ya:-al-a:/, 'they[du] are here' cannot add a redundant Du suffix to form *ya:-wi:-al-a:, and ANA Prox /ya:-al-a:/ is used for all numbers. However, when /-yun/ is added it becomes possible to add Du /-al-a:/.

We do find instances with Mdu or ANA /-al-a:/, where a further /-al-a:/ is redundant. For Prox we can cite 2 cases with /-yun-ba:/ (72.4.4, 72.6.1) and 0 with just /-yun/.

On the other hand, for Imm we have 7 cases of /-un-gi-yum/ 13.9, 17.1.9, 17.8.6, 17.9.3, 28.11.7, 76.2.1/6 and 2 of Fdu /n-ai-di-ni-yum/ 11.1.3, 73.1.3 but 0 with /-yun-ba:/.

This suggests the possiblity that /-yun-ba:/ is more frequent with Prox and Imm than with Anaph with already dual stems. The data just given actually suggest a rigorous usage of /-yun-ba:/ with Prox and Imm and rigorous usage of /-yun/ with Anaph; however, at least the first half of this "rule" is invalidated by data in Hughes' texts, where Fdu Imm /n-ai-di-ni-yum/ TMT 15 is found in addition to /n-ai-di-ni-yum-ba:/ MT 31.

When /-yun-ba:/ occurs with a nonhuman W, the Du ending is not expected. There are only a couple of attested forms, both from Hughes' texts: ANA Anaph /an-una-ni-yum-ba/ MT 10 and ANA Imm predicative /da-ni-yum-ba/ MT 7.

With already dual stems, it is arguable that the apparently low frequency of /-yun-ba:/ with Anaph DemPro, in comparison with the higher percentage of Prox and Imm forms which do have /-yun-ba:/, has to do with the generally backgrounded character of Anaph DemPro as opposed to the relatively more foregrounded (deictic) uses of Prox and Imm DemPro. Although Du /-a:/ is redundant (and, thus, in a sense, emphatic) in all such forms, it may be that it is more common when the whole DemPro is highly foregrounded. This point, however, would not apply (at least not so strongly) in the case of nonhuman DemPro, where adding /-a:/ is the only way to mark duality.

The following sections, notably §7.9 and §7.10, treat suffix combinations in which /-yun/ is a component. For the occasional combination of /-yun/ with a following case suffix, e.g., Locative /-yun-du/, Relative /-yu^-in/ and variants, Allative /-yun-guy/, see sections §7.18-20, below.

We repeat also two distributional restrictions on /-yun/.

First, it does not co-occur with Concrete /-u/ as a partially competing morpheme discussed in §§7.6, above. Second, /-yun/ (unlike /-u/) cannot be directly added to Locative DemAdv like /ya:-li:/ 'here' and /ba-gu/ 'there(Anaph)' discussed in §§7.12, below (though the combination /-ala-yum-ba:/ containing Centripetal /-ala-/ can be added to such DemAdv, §7.9).

7.8 Centripetal plus Ablative: /an-uba-ni:-'la-wala/.

The Centripetal suffix /-al-/ (§7.5), though somewhat similar in its semantics and phonologically to nominal Ablative case suffix /-ala/ (§4.21), is best considered a distinct suffix in view of its systemic meaning with demonstratives and also in view of the absence of a certain initial semivowel.

Indeed, the combination /-ala-wala/ (also pronounced /-ala-ala/ or even /-ala-ala/) occurs, though the only attested form is the high-frequency ANA Anaph form /an-uba-ni:-'la-wala/. Although the literal meaning should be something like 'from that(Anaph) one (who is coming this way)', the regular translation is simply 'after that' or just 'then', indicating the sequential relationship between an event and the preceding narrated event. The exx. in NMET (total 13) are these: 5.1.8, 31.1.5, 22.4.1/3, 28.5.2, 28.13.3, 29.3.1, 62.3.5/3, 44.6.3, 62.4.1/2, 62.6.1. In some of these exx. it would be contextually possible to consider 'from that place' as the sense, for ex. in such a combination as 'he slept there, he got up and left'. However, the temporal-sequence interpretation is also possible in this context, and is the only possible reading in those contexts where the two sequenced events take place in the same location.

The form /an-uba-ni:-'la-wala/ has continuous ANA prefix /an-uba-ni:/ which is not recorded a variant with punctual ANA prefix */o:-'ba-ni:-'la-wala/ been found. It seems clear that /an-uba-ni:-'la-wala/ is a specialised type, formally and functionally.

The following sections, notably §7.7, §7.8, 295
Centripetal /-ala-yungj (§7.5) combines with Absolute /-yun-g/ (§7.7) to form a sequence /-ala-yung-gala/ (ANA imm predicative DemPro), which is also the basis for some additional sequences. All of these have somewhat specialised functions which are not directly predictable from the components. We first consider /-ala-yungj/ with no further suffix (except possible postposition).

DemPro with /-ala-yungj/, like DemPro with just /-ala/, involve a trajectory (prototypically linear, but possibly zigzagging or partially curving). The form in /-ala-yungj/ differs, however, in its nearly exclusive orientation to static phenomena with linear extensions (e.g., a line of trees), whereas the form in /-ala/ may indicate either a linear extension or actual motion (see end of §7.5).

Moreover, with /-ala/ the specifically centripetal axis is central; the motion or linear extension must involve the speech-event (or narrative) 'here' as one endpoint or target. On the other hand, with /-ala-yungj/ this aspect does not seem to be emphasised; rather, the main concern is with the extension itself.

The texts in NMET show 8 instances of /-ala-yungj/ with a predicative DemPro, and 15 with nonpredicative DemPro. We also get /-ala-yungj/ in some DemPro forms based on Locative /yuna:-gu/ 'there (Dist)' and /yari:-j/ 'here' (and their prefixed variants), see §7.12, below.

The attested predicative forms are: /ya-ni:-'la-yungj/ (25.3.2) ('[going] along there'); /ya-gi:-'la-yungj/ not in NMET but found in TNT 8 ('his footprints coming along here'); /ya-ma:-'la-yungj/ (14.19.1 [incorrectly '14.18.5', p. 102 of NMET]) (14.19.1 ['la-ala-yung-gala-waj' (14.19.1) ('[this] alone here')]; /ya-ma:-'la-yungj/ 25.3.3/4 ('let's swim over here!'); /ya-ma:-'la-yung-j/ (14.12.2/3) ('she was following his footsteps and his footprints'; noted revised interpretation); /da-ma:-'la-yungj/ (14.12.2/3) ('[lots of wattle trees] stand there in the bush')

The nonpredicative forms with /-ala-yungj/, the most common form is /ana:-ni:-'la-yung-gala-waj/ (ANA Prox). This is used to describe a string of locations or other geographical extension (recall that place names and the noun /lai/ 'town' are ANA in the NC system). There are 11 exx.: 97.1.3/4, 97.6.8, 97.4.4, 117.8.6, 143.10.3, twice 144.4.4, 166.27.1. The other common form in NMET is MANA class Prox /mana:-'la-yung-j/ 97.5.2, 118.5.2 or /mana:-ni:-'la-yungj/ 166.2/4.1, which can be used to describe a plant sp. found along a long linear trajectory; this is also the sense of the nonpredicative form /ana:-ni:-'la-yung-gala-waj/ 166.2.3. Anaph prefixed /or:'ba-ni:-'la-yung-gala-waj/ is found twice in 2.2.5 in linear-extension sense.

Of course, this summation can be thought of as an extension of the linear-extension sense, going from a spatial context to that of a string of words in the preceding discourse.

7.10 /-yun-ga-j/.

This is the combination of Absolute /-yun-g/ (§7.7) and a suffix which is phonologically compatible with Retrospective Pergressive /-wa-j/ (§6.2). We should also mention the similarity to the suffix-sequence /-yun-ga-j/-ga-j/ 'too' (as in 'me too') used with independent personal pronouns (§6.8).

It is possible to distinguish two basic senses of /-yun-ga-j/ with DemPro. First, there are three more or less interchangeable expressions based on nonpredicative ANA Imm DemPro all meaning 'long ago', in the old days, in the days of the old people (now dead).

With ANA as the NC we have 24 instances of /an-uba-ni:-'la-yungj/-ga-j/ 'long ago', sometimes with irregular pronunciation /-o-ja-/ or /-a-ja/- etc.

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Further, we have ANA DemPro with /-ana-ni:-'la-yungj/-ga-j/-ga-j/ 'too' (as in 'me too') used with independent personal pronouns (§6.8).

Continuous /ana-/, is found 8 times in the same sense: 35.6.4,
end up functioning much like adverbs, as in the case with
\(/\text{an-uba-ni-yun-ga}/ in the preceding section ("long ago"). Thus
the distinction between DemPro and DemAdv is not always sharp, at
least in functional terms.

As we use the term, however, DemAdv refers to certain specific
forms which do not involve DemPro and extend to certain specific
functions which do not involve DemPro and DemAdv is not always sharp, at
least in functional terms.

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definitions which do not involve DemPro and extend to certain specific
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forms which do not involve DemPro and extend to certain specific
functions which do not involve DemPro and DemAdv is not always sharp, at
least in functional terms.
We refer to the previous section for definitions of terms and notation; for a discussion of the choice between Locative DemAdv and a simple DemPro see §7.4. Here /yuwa:gi/ is an unprefixed (predicative) DemPro (§7.4); prefixed counterparts like /nu:ba-gu:/ (with Mg prefix) do not have this predicative function.

As pointed out in §7.4, this preference for predicative DemPro over DemAdv is limited by the fact that the DemPro must have a valid referent, either present-tense or at some point in time determined by narrative perspective. Thus, negative 'My father is not there' requires a different construction involving a DemAdv instead of a DemPro:

(7.vii) yuwa:gi ni:bura:ni he is not there

'my father is not there'

Here /yuwa:gi/ is an unprefixed (predicative) DemPro (§7.4); prefixed counterparts like /nu:ba-gu:/ (with Mg prefix) do not have this predicative function.

As pointed out in §7.4, this preference for predicative DemPro over DemAdv is limited by the fact that the DemPro must have a valid referent, either present-tense or at some point in time determined by narrative perspective. Thus, negative 'My father is not there' requires a different construction involving a DemAdv instead of a DemPro:

(7.vii) yuwa:gi ni:bura:ni he is not there

'my father is not there'

This is because, in this context, DemPro /yuwa:gi/ 'He is there' is invalid, and since there is no way directly to negativise a predicative DemPro, the construction with DemAdv is necessary. Similarly, non-present tenses in the positive tend not to use the DemAdv construction. To say 'He was sitting here' or 'He will sit here', we will usually get a construction with /ya:-ji/ 'here', since a double-predicate construction of the type '[He is] this # he-sits') the latter ex. is more pertinent to this section:

(7.vi) yuwa:gi ni:bura: ni he is sitting there

'that[Dist]-M3g he sits

Note: As usual, figures include no. of occurrences with no suffix or with just postposition.

Table 7-7

<table>
<thead>
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<th>Prox</th>
<th>uninfixed</th>
<th>continuous prefix</th>
<th>punctual prefix</th>
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<td>103</td>
<td>103 an-wa-gu</td>
<td>22</td>
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<tr>
<td>ba-gu</td>
<td>163</td>
<td>an-uba-gu</td>
<td>13</td>
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<table>
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<tbody>
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<td>11</td>
<td>na-baba:</td>
</tr>
</tbody>
</table>

Note: As usual, figures include no. of occurrences with no suffix or with just postposition.

The totals are 397 uninfixed, 56 continuous (including forms in negative contexts), and just 4 punctual, so that 87% of NNET occurrences are without prefix and most of the remainder are with continuous NCL prefix /ana:-/. The absence of attested continuous forms with the Imm root (/ana-da-ju:-/ etc.) is fortuitous.

It is probable that the Anaph forms should be broken up into simple /ba-gu/ vs. Concrete /ba:-ju:/ and so forth for the prefixed variants. However, no statistical breakdown is given because there are questions about transcriptional reliability on this point since the only superficial difference is in final vowel length. The problem is that in some cases we find /ba-gu:/ with what is apparently a different lengthening rather than the result of vowel contractions:...
We now extend the observations made in §4.7 by considering the relatively small number of textual occurrences of DemAdv like Prox /ya-/-ji/ and Anaph /ba-gu/, with or without prefixes, in present positive contexts, which (as just mentioned) commonly use predicative DemPro instead. The exx. have been grouped here into categories, though some exx. could have been put in either of two since the categories cross-over. To begin with, we have a set of cases involving 1st person pronouns of the type 'He (habitually) dance over there', where predicative DemPro cannot be used (DemPro cannot agree in NC with 1st/2nd person pronouns, and in any event DemPro could not be used here since the 1Pl referent is not 'there' at the time of speaking): 57.2.3 (twice), 57.3.3 (twice), 68.2.1, 57.1.6, all with Dist DemAdv.

Secondly, DemAdv are commonly used (along with a manual gesture) to refer to body parts even in present tense contexts: Prox exx. are 92.1.3, 92.2.2, 109.3.4, 12.5.3, 13.1.4, 131.3.2; Imm 92.1.2, 92.3.1/2; Anaph 92.2.3/4/5.

Third, DemAdv are used even in present positive in contexts like 'He put it here/there'. In this instance the DemAdv may be Allative (§7.13) or Directional (§7.14), but the Locative can also be used; we might conceptualise the syntax as 'He put it down [so it stopped] here/there'. Typical verbs would be 'to put', 'to put in', 'to take[transport]', and 'to bury'. Exx. are Prox 123.3.4, Dist 106.2.3, 105.3.4, 109.2.6, 115.2.4, Anaph 101.2.1, 109.2.5. We may partially have introspective exx. of the type 'He went there', where again the Allative or Directional DemAdv is possible, but where the Locative can occur when the syntax is of the type 'He went along and [stopped] here/there'; Prox 63.2.5; Anaph 13.3.3, 35.1.4, 135.3.5.

A number of additional exx. may belong with the type in the previous paragraph, but are more difficult. With some transitive verbs like 'eat', 'give', and 'hit', a specification of location (place, not body part) of action does not easily focus on a single referent involved in the event, and it is reasonable to have a stance verb and separate predicative DemPro. Indeed, the double-stance should be ideal for the double-predicate construction with 1st/2nd person pronouns, and in any event DemPro could not be used here since the 1Pl referent is not 'there' at the time of speaking): 57.2.3 (twice), 57.3.3 (twice), 68.2.1, 57.1.6, all with Dist DemAdv.

We similarly have intransitive exx. of the type 'He went there' (= 'He is standing here') or 'He is sitting/standing here/there', since a present tense predication of stance should be ideal for the double-predicate construction with stance verb and separate predicative DemPro. Indeed, this construction commonly occurs here, but there are a number of cases with Locative DemAdv instead. There seem to be two possible ways to account for this. One is to argue that the textual exx. involve presupposition of the motion indicated, so that what appears on the surface as 'He is standing here' should be reconceptualised as '[He stopped] here and [and] he is standing'. The other is to say that in these exx. the location of the referent is permanently fixed (as with totemic sites representing a formerly mobile being), or else that the context involves habitual or characteristic location not really emphasising location at the moment of the speech event or any other temporal point of reference. At any rate here are the exx. I am thinking of: Prox 48.1.3 and 48.2.4; Dist 41.24.4 and 41.22.3; Anaph 91.2.3, 41.19.2, 101.2.4, 140.1.4, 140.3.1.

The exx. have been grouped here into categories, though some exx. may belong to either class. With some transitive verbs like 'eat', 'give', and 'hit', a specification of location (place, not body part) of action does not easily focus on a single referent involved in the event, and it is reasonable to have a stance verb and separate predicative DemPro. Indeed, the double-stance should be ideal for the double-predicate construction with 1st/2nd person pronouns, and in any event DemPro could not be used here since the 1Pl referent is not 'there' at the time of speaking): 57.2.3 (twice), 57.3.3 (twice), 68.2.1, 57.1.6, all with Dist DemAdv.

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Third, DemAdv are restricted to the Dist and Anaph roots. In the case of Anaph, the Concrete suffix /-u/ (§7.6) may be added (in NMET about one-fourth of Anaph exx. show the /-u/). The forms with or without NC infl prefix are shown in Table 7-8 along with the number of occurrences in NMET.

It is possible that the ending /-guni/ should be itself segmented as /-gu-ni/, with /-gu/ related to Locative /-gu/ (§7.12) and /-ni/ perhaps thought of as the ANA class suffix (used with DemPro, §7.2). The extra boundary is shown in the transcriptions in NMET but has been dropped in the present grammar.

In /y/-guni/ and its prefixed form /an-u/-guni/ there is a minor alternation between /u/ and /yu/ in the root segment (loss of /y/ in the prefixed form is normal for demonstrative roots). However, the transcriptions represent my judgement as to the most common pronunciation of each form (with subsequent normalisation), and some variation in surface pronunciation of vowel length was observed.

The form /or/-guni/ was transcribed either /or/-guni/ 55.1.3 or /or/-guni/ 48.1.6, 48.2.1 in NMET, the first of these showing optional stylistic lengthening. Hughes also presents a transcription "wuguni" (TNT 1). There appears to be some low-level variability in pronunciation in this form. It also worth noting that the attestations for punctual-prefix forms all involve the Dist root, just as was the case with Locative DemAdv (Table 7-7, above). (Non-Dist Locative DemAdv forms like Prox /ya-/-ji/ seem unlikely in this usage, though certainly possible as a rare stylistic option.)

<table>
<thead>
<tr>
<th>TABLE 7-8</th>
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<tbody>
<tr>
<td><strong>Allative DemAdv</strong></td>
</tr>
<tr>
<td><strong>unprefixed</strong></td>
</tr>
<tr>
<td>Dist</td>
</tr>
<tr>
<td>Anaph simple</td>
</tr>
<tr>
<td>Anaph Concrete</td>
</tr>
</tbody>
</table>

302 §7.12
distinctly rare except when a case suffix is directly added.)

The textual exx. of /0:-'-guni/ and of /0:-'wa:-gu/ (§7.12, Locative) suggest that these punctual forms occur only when closely connected to a noun (preceding or following) in the appropriate case relation and with punctual NC prefix. Thus Locative /0:-'wa:-gu ana-malwad/15.9.4 'there in the malwad trees', Allative /vu-guni a-tha:-'la-guy/ 47.2.1 'they send messages there to other countries'. For adverb following the noun see, e.g., 48.1.6. While we would normally consider a phrase like 'there in the malwad trees', the occasional use of punctual prefix for the DemAdv (in addition to the noun) suggests an occasional tendency to treat the two as part of a single NP, so that the use of punctual prefix with the noun triggers use of punctual prefix with the DemAdv. As we have seen, this is not common and the attestations involve the Dist forms only.

A more common pattern is to have a DemAdv co-occur with a (case-marked) noun but with no formal interaction, so that the noun may well have punctual prefix but the DemAdv is unprefixed or sometimes with continuous prefix. Thus, in Nunggubuyu we find 'He went there(All) northward' instead of just 'He went north', 'He is sitting there(Loc) at Numbulwar' instead of just 'He is sitting at Numbulwar', and so forth, with adpositional but formally independent DemAdv and noun (perhaps separated by a pause or by other constituents). Though no computations have been carried out, it is likely that this appositional structure is particularly common for the exclusively deictic Dist category (since Anaph refers back to a definite location already mentioned and since Prox and Imm are circumscribed by the speech-event or sometimes narrative vantage point).

Allative DemAdv can be used in the dative sense as well, and may accompany a noun in Allative-Dative form with dative sense (e.g., recipient of 'to give', benefactive indirect object). The dative exx. of /vu-guni/ are 4.2.4, 6.2.2, 7.12.3, 80.1.5, 106.5.1; /an-u-gunl/ 47.2.1, 79.1.3 (adverse Benef). A few of these are ambiguous between allative and dative senses (e.g., with 'to send'), but some are unambiguously dative.

Other functions of the Allative-Dative nominal case category (§4.20, §4.22) are also carried over to these DemAdv. Thus the occasional use of All-Dat for direct object may be accompanied by /vu-guni/; 36.4.4, 37.4.4, 45.1.3. In 39.8.4 /vu-guni/ is found in the sense 'He spoiled us here [i.e., made us mortal], and maybe he spoiled you over there as well'. In 47.10.2 the context is 'the words get around [i.e., are divulged and circulated], [and go] there to [make] trouble'; in 66.3.1 we have 'sounds go in there into the ears'; both have /vu-guni/.

Having pointed out that Allative DemAdv often co-occur with Allative-Dative nouns (and are sometimes drawn into the same NP with them), we may make the converse point that Allative-Dative forms of DemPro are rather uncommon (§7.20) if we leave aside the special Directional adverbial formation of §7.14. Thus, if we want to say something like 'I gave it to that man', we are more likely in Nunggubuyu to say 'I gave it there(All) to-the-man' than to say

FIGURE 7-3 DemAdv Motion Axes

Centripetal (§7.15)

A → B Root specifies point of departure rather than terminus, especially when root is Dist or Anaph. Situation less clearcut with Prox or Imm roots, because point of departure and terminus blurred.

Allative (§7.13)

A ← B Used when motion is away from B, or in any other noncentripetal direction, and where there is a clear endpoint or target region. Root specifies this endpoint/target rather than point of departure. Root must be Dist or Anaph.

Directional (§7.14)

← B Axis defined by B with no reference to endpoint or target; used when the latter is indefinite. Root is Prox or Imm.

Note: B is speech-event or narrative 'here'; A and C are distinct points or zones. Other DemAdv types not covered here include Centrifugal (§7.16), Pergressive (§7.17), and Lateral (§7.21).

'I gave it to that to-the-man' with modifying DemPro agreeing in case with the noun.

It may be useful at this point to outline the relationships among the three most important motion-oriented DemAdv categories (Figure 7-3, above), leaving some other types aside for the moment. The primary opposition is between Centripetal and Allative forms. To describe a trajectory such that 'here' (B in the figure) is in some immediate direction of the moving object (whether or not the object actually reaches B, or stops short), a Centripetal adverb of the type 'there-coming' is used. Here the root specifies the point of departure (often Dist or Anaph), while the Centrip ending indicates direction roughly toward 'here'. Arrival 'here' is not usually specified, but in many contexts is implied. Thus the normal way to say 'He came here' is this:

(7.1x) ni=ya-nag1 ba-ga:-'la
he went there(Anaph)-Centrip
'He came here'

This particular form with Anaph root would be used when the point of departure has been established (as in 'He went from Darwin to Ngukurr. Then he came here.'). Note that English ordinarily
specifies the endpoint ('here'), while Nunggubuyu usually indicates point of departure and centripetal direction.

On the other hand, if the direction of motion is noncentripetal and there is a more or less well-defined terminus or target area, Nunggubuyu regularly uses an Allative DemAdv.

(7.x) nga-wa-gi ba-guni
   he went there
   (Anaph)-All

Again, /ba-guni/ with Anaph root implies that the location is discourse-definite; otherwise Dist /yu-guni/ is used. In either event, the specification here is of the endpoint or target rather than on the point of departure. Furthermore, since Allative DemAdv is not used when the direction is centripetal, use of Allative implies that the trajectory is either centrifugal (away from 'here') or in some transverse axis (see figure). However, neither the precise axis nor a specific point of departure is specified; the unmarked interpretation in some contexts is that 'here' is the point of departure.

Directional forms are used to indicate a portion of a trajectory when there is no definite or specific endpoint (as in 'Let's go this way').

Note that the verb translated 'he went' in (7.1x) and (7.x) does not itself specify the axis of motion, and can be translated 'he came' in appropriate contexts. (Only in the imperative is there a special verb root for 'come'.) The same is true of other verbs like 'to take' (= 'to bring'). Directions must therefore be specified by demonstratives or by case-marked nouns.

It should be clear by now that "case" categories in the DemAdv system are different from those of nouns. If X is a noun, say a place name, one can use Ablative /X-wala/ 'from X' or Allative-Dative /X-wu-uy/ 'to X' with no restrictions; each such case-marked form specifies either point of departure or endpoint. DemAdj, on the other hand, typically involve an axis which must be placed with respect to the speech-event or narrative 'here'. Thus whether you can appropriately say 'to there (All)' or 'from there (Centrip)' depends on a complex configurational perspective.

We close this section with some textual citations of Allative DemAdv (excluding /-u-/ with Anaph and dative uses of the others, already cited earlier in the section). Representative exx. of /ba-guni/ are 4.3.1, 8.4.2, 9.4.5, 9.9.3 ('with to see'), 12.9.2, 12.10.1 ('to see'), 13.44.3, 14.3.2, 16.2.3/6, 17.3.7 ('to jump'), 35.9.5, 43.3.2, 47.16.3, 65.6.1 ('turned and faced that way'), 70.3.1, 113.7/4 (‘wild potato sp. found from [place n.] to there, [other place n.], 115.3/4, 138.4.5, 122.4/2, 162.4.2, 167.1/2. Close inspection of these exx. reveals the same liberal usage of this category (e.g., 'he drank to there' meaning 'he went there drinking' or the like) already seen with Allative-Dative case suffix /-u-uy/ (§4.10). Often /yu-guni/ is directly contrasted with directional /ya-mu/-'way/ 'this way' (§7.13) or some other Prox DemAdv in either a 'to and fro' sense or to differentiate two events or referents; exx. are 10.17.5, 12.8.3, 13.3.1, 13.10.3, 14.11.3, 27.7.4, 35.7.1, 43.15.3/4, 51.3.2, 95.9.2, 132.11.5. The prefixed form /an-u-guni/ is used in negative contexts (20.19.3, 21.10.3, 34.4.1, 67.3.2, 122.1.3), including conditional protasis (65.13.3, apparently 76.2.6 with very omitted; but cf. /yu-guni/ 30.1.4). Other exx. of /an-u-guni/ not involving negative contexts include 13.39.2, 13.43.3, 22.4.4, 28.8.4 (before 2 go there)), 30.5.1, 33.4.1, 41.11.4, 59.10.1, 62.2.4.5, 77.2.4, 106.7.3, 167.3.3.

A few exx. of /bu-guni/ are 1.3.1, 10.2.3, 10.3.3/4, 35.13.1/2, 65.2.3, 114.4.4, 162.12.2, 164.2.3. In view of the semantics of Anaph it is not surprising to find several exx. with postposition /-u-ugij/ 'all, only, nothing but' (§7.30). The exx. of /bu-gunu:/ are 52.4.3, 14.10.1, 21.4.5, 27.2.2, 44.5.5, 50.5.5, 70.3.4, 119.5.3, 134.12.3, 162.23.4, 166.13.5, 167.20.2, 34xx. with /-u-ugij/ are recorded. For /an-ubu-guni/ see 22.1.5 (conditional) and 59.10.1; /an-ubu-gunu:/ is found in 41.13.5.

The unprefixed Anaph form, usually /ya-mu/-'way/ with Concrete suffix present, can also be used as an Adj (with intransitive prenominal prefixes) meaning 'facing away'; usually it is reduplicated as /buguwunu:/ in this sense. The form may be fully verbalised by adding Inchoative /-ma:/ See §7.22 for details; these forms are not included in the computations and textual citations given in the present section.
trajectory is determinate we are more likely to get a Centripetal DemAdv than a Directional one.

In the context of trajectories as opposed to static points, it is not surprising that the Imm category becomes statistically less common, so that in practice it tends to be absorbed into the Prox category. Thus only 2 out of 105 NMET attestations (Table 7-9) have Imm roots. The Imm is likewise not especially common in the Centripetal forms (§7.15).

Frequently, /ya:-mu:-'-wuy/ occurs contrastively with a juxta-posed Dist Allative DemAdv /yu:-guni/ 'to there', giving a 'to and fro' sense or contrasting two referents or events: 9.9.4, 10.17.5, 13.10.2, 18.11.3, 34.8.4, 57.1, 43.15.12/3/4, 51.3, 59.11.5; the latter seems to be associated with the low-frequency usage of case suffix /-wuy/ with a noun in direct object function (§6.42). In 20.17.5 the context is that of two characters walking along, whereupon 'a hill came up into view', with the same shift in static/moving perspective described for Centripetal DemPro in §7.5, above. Some occurrences of /ya:-mu:-'-wuy/ 'southward', also /ya:-nu:-'-wuy/; we conclude that /-wuy/ is a DemAdv formation (not DemPro).

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The most useful ex. of /da-nu:-'-wuy/ is 7.15 Centripetal DemAdv in /-ala/ or /-yu:-ynPH/. There is no true Ablative DemAdv of the type 'from here', 'from there', or at least the latter see /-ala/ (Table 7-10, above) which, at least for Dist and Anaph roots, can be translated 'from there', but specifically implies motion (or linear extension) in the general direction of the speech-event or narrative 'here'. The basic form is with suffix /-ala/ added directly to the Locative DemAdv (for the latter see Table 7-7, §7.12). Suffix /-ala/ is roughly similar to nominal Ablative case suffix /-u/-/al/ (§4.21) in form and function, but should be considered a distinct morpheme now. It also occurs with DemPro (§7.5), where it specifies that the referent is in motion toward 'here' (or else that one or more speech-event participants is in motion or may soon be in motion toward the referent). For additional information on how the Centripetal DemAdv fit into the system of motion-oriented DemAdv, see Figure 7-5 (§7.13), above and accompanying discussion. Note in particular that English 'He came here, is typically restructured as 'He went to there [Centrip]'.

The Centripetal DemAdv is in /-ala/ or /-yu:-ynPH/. In elicitation sessions it was possible to obtain Anaph /ba-nu:-'-wuy/ (and prefixed /an-uba-nu:-'-wuy/, /o:-'ba-nu:-'-wuy/), but it is not clear whether these forms are really used at all. It was not possible to obtain variants of /ya:-nu:-'-wuy/ with a noun phrase /an-nu:-'-wuy/ showing NC agreement with a variable referent, e.g., MANA Prox *ya:-nu:-'-wuy/; we conclude that /-u-wuy/ is a DemAdv formation (not DemPro).
that some 83% of the textual exx. are in one of these two categories. The Inm is the least common category in the sample, though perhaps in a conversational rather than narrative corpus it would be a little more common.

It is noteworthy that the Dist and Anaph forms are more common in the continuous-prefix form with /ana-/ than in the unprefixed form, though in the Prox and Inm the unprefixed form seems slightly more common. The preference for continuous form for Anaph and Dist is quite striking in view of the very different patterns seen for the same root categories in the tables for other DemAdv formations (e.g., Tables 7-7, 7-6, 7-9), where unprefixed DemAdv greatly outnumber continuous-prefix forms for all root categories even if we include adverbs in negative contexts (which make continuous prefix obligatory).

We might approach an explanation of this preference for continuous-prefix Centripadverbs by recalling that with place names, the continuous prefix was used in 48% of textual exx. of the Ablative case, but only in 17% of Allative(Dative) case forms. We explained this by pointing out that in the narratives, a place name is often mentioned twice, once when the protagonist reaches it (Allative) and then a second time when he/she leaves it (Ablative). Because the continuous prefix is favoured by backgrounded, "given," nonfocal status, it is more common with nonfocal than initial mentions of nouns in discourse, and thus interacts with narrative structures to give the Ablative a high rate of prefixation (see also §6.8).

There is some difficulty in applying this analysis directly to the statistical asymmetries in Table 7-10. Our line of reasoning would lead us to believe that the Anaph root should have a high rate of continuous prefixation in the Centripetal DemAdv, which is in fact the case, but it does not lead us to expect the same trends with the (deictic) Dist root—yet nearly 63% of Dist Centripetal DemAdv (101 out of 158) have /ana-/ prefix. From my understanding of the textual exx., I venture this explanation for the high rate of continuous prefixation of the Dist root. Because Centripetal DemAdv are effectively required (Figure 7-3) when the motion is in fact directed toward the speech-event or narrative 'here,' Nunggubuyu speakers must say 'He went[t came] from there' Where speakers of most other languages would say 'He came[went] from there.' In most contexts, the 'from there' form in Nunggubuyu will have either Anaph or Dist root. In the texts, Anaph Centripetal forms are most often used when the point of departure for the motion is the most recently mentioned location in the immediately preceding discourse segment ('He went from Darwin to Nukkur, then he came from there [to here]!). Therefore Dist forms are normal to specify motion to or toward 'here' when the point of departure is any point other than this most-recently-mentioned one (though we should make some allowance for flexibility on this requirement). Thus 'From there[Dist-Centrip]' might be used in contexts where the hearer location is moved by an intervening location expression. Moreover, 'from there[Dist-Centrip]' is also regularly used when the point of departure is only vaguely defined or does not particularly matter (to the speaker), since as we have emphasised the orientational system requires a Centripetal DemAdv frequently where other languages would emphasise the point of arrival (terminus). The overall effect is that Dist Centripetal DemAdv are quite extensively deictic (by our definition of Dist), have an appreciable tendency to background (de-focus) the (distant) point of departure, so that Dist forms end up approximating the prefixing patterns of their Anaph counterparts.

We now give some exx. of the Dist and Anaph. Several specific features of the nominal Ablative occur in Centripetal DemAdv. With /yuwa-gar-"la/ we have one case involving the use of Ablative as an occasional marked case for subjects (45.1.4), cf. also /an-uwa-gar-"la/ with 'to give' (78.1.6). Place of origin rather than trajectory starting point seems present with /yuwa-gar-"la/ in 50.7.3, 71.4.2, 21.26.4. We have the context 'named from' with /yuwa-gar-"la/ 80.2.3/5/7, 81.14.5/4, 90.2.6. We have 'X spoke/called/sang from there' or the like with /yuwa-gar-"la/ 28.4.3, 15.3.2, 20.3.6 and /an-uwa-gar-"la/ 13.2.7, 47.2.2, 94.2.1/2.

Often the Centripetal DemAdv co-occurs with another adverb in contrastive sense (distinguishing two events or referents). Thus /yuwa-gar-"la/ is opposed to a Centrifugal form in /a-al/ (§7.16) or a reduplicated Lateral form also in /a-al/ (§7.21) in 50.5.3, 101.3.4. Inf. /an-uwa-gar-"la/ in 13.2.9, 41.9.1, 157.14.1 and Anaph /an-uwa-gar-"la/ 111.3.2. We can also have a form like /an-uwa-gar-"la/ repeated to indicate arrival from two or more directions (perhaps distinguished by manual gesture or a juxtaposed expression such as a cardinal-direction adverb): see 40.8.1-3. Where a Dist or Anaph Centripetal form co-occurs with a Prox Centripetal form we may likewise have a contrastive opposition, as with /an-uwa-gar-"la/ and /ana-"ji-"la/ 53.2.1, /an-uwa-gar-"la/ and /yai-"ji-"la/ 110.3.3/4, and possibly /an-uwa-gar-"la/ and /ana-"ji-"la/ 161.15.3. However, when the juxtaposed adverb is Direct Centripetal DemAdv 'from this way' (§7.14), the usual sense is that of continuation of the same trajectory: /ba-gar-"la/ plus /ya-nur-"-way/ 28.1.3, 168.4/4.

A few other exx. of /yuwa-gar-"la/ (which is, incidentally, shortened from expected *yuwa-gar-"la/ by F-42) are 7.10.3, 8.1.3, 10.5.3 ('was perched'), 13.4.1.2, 15.3.2, 29.10.5, 21.1.5, 29.9.3, 34.4.5, 60.1.3, 73.3.1, 89.1.7, 101.11, 165.14.3. Prefixed /an-uwa-gar-"la/ replaces this obligatorily in negative contexts (65.1.2/3/4), including conditional protasis (75.1.5, 84.1.5, 88.3.3, 90.1.6, 90.2.1/2). Other exx. of /an-uwa-gar-"la/ are 9.12.4, 10.18.2, 13.35.2, 21.4.5, 41.12.3, 44.5.2, 47.20.4, 52.4, 101.13.3, 108.6.6, 110.2.4, 112.5.1, 149.1.4, 155.1.3, 162.22.3, 166.17.2. Punctual /or-a-gar-"la/ is attested 69.5.2, 166.1.3.


These citations will give a good idea of the range of uses; as with other motion-oriented adverbs, these may occur without a verb (so that we should "supply" a verb in our interpretation), or may
co-occur with a nonmotional activity verb like 'to anchor' in a sense 'to come and anchor' (e.g., 167.12.1). With a verb like 'to see' it is not always possible to tell whether the correct translation is 'to come and see' or 'to see from there'. Regarding "geo", I have occasionally ventured a temporal gloss 'after that' or 'then' (e.g., 11.4), but I am now inclined to think that this is wrong and that motion is implicitly involved in these exx.

The Anaph form /ba-ga:-'la/ can also be used as NAdj with intrasentential pronominal prefix in the sense 'facing this way', usually reduplicated as /bagawaga:la/; see discussion §7.22.

Prox /ya:-ji:-'la/ seems to have a considerable range of specific senses, as does prefixed /ana/-'ji:-'la/. In some contexts it seems to mean simply [coming] along here', [coming] along this way': /ya:-ji:-'la/ 10.16.1, 35.3.1, 61.2.6/5, 62.5.3/4, 108.3.5, 161.14.4, 162.12.1, 166.1.1; /ana/-'ji:-'la/ 25.4.4, 63.4.2, 161.14.3/4, 161.15.3, 161.23.1, 161.30.2; this is also the case with the only exx. of punctual /a/-'ji:-'la/ 167.1.1/3. These forms can also be used in connection with the occasional Ablative case for the grammatical subject: /ya:-ji:-'la/ 36.4.3/4 (161.8.1 might be another ex., but could have other interpretations). A number of exx. involve clear contrasts with a non-Prox location or side and are related in meaning to the Lateral derivatives (§7.21) and translatable 'over here' or 'on this side': /ya:-ji:-'la/ 3.5.1, 16.21.3, 110.3.4; /i-alai/ 40.2.6, 53.2.1, perhaps 53.4.2/5. The same effect can be created by using two or more identical Prox Centripetal forms ('over here and over here') to indicate separate locations or sides: /ya:-ji:-'la/ 17.12.2/3, 17.16.1/3; /ana/-'ji:-'la/ 70.1.3. As usual, /ana/-'ji:-'la/ is required instead of /ya:-ji:-'la/ in contexts including conditions.

The Imm exx. are /da-ji:-'la/ 163.3.1 ('maybe it[vehicle] is coming up behind us') and /da-ji:-'li/-'li/ ('she was about to turn and face him there').

We have covered Centripetal DemAdv with just /-ala/ or Concrete /-alu:-'. It remains to cover the much smaller number of attested forms in /-ala-yun g/ including Absolute /-yun g/ (§7.7, cf. also /-ala-yun g/ with DemPro §7.9). For frequency figures see Table 7-10 (above), part (b). Note that while Prox Centripetal DemAdv in just /-ala/ are much less common than Dist or Anaph forms, with /-ala-yun g/ it is the Prox which is easily most common (15 exx. out of a total of 17 for all roots). The other exx. (2) are Dist. It is possibly significant that /-ala-yun g/ is attested mainly with the unprefixed roots.

One important clue to the meaning of the /-ala-yun g/ DemAdv is the fact that we have attestations with the Dist root but none with the Anaph root. Although a larger sample would perhaps turn up an Anaph form like /ba-ga:-'la-yun g/, the statistics make it very clear that /-ala-yun g/ here is not simply the Absolute /-yun g/ with sense as described in §7.7 added to a Centripetal DemAdv (/-ala-yun g/ with DemPro in §7.7 is exceptionally common with the Anaph root, is possible with Prox and Imm only common in one list-summatative Imm form, and is impossible with Dist). It is therefore reasonable to compare DemAdv in /-ala-yun g/ with the semantically specialised suffix-combination /-ala-yun g/ as found with DemPro (§7.9), the sense being linear extension (straight or zigzagging).

Several exx. of /-ala-yun g/ with DemAdv indicate a small trajectory along one body: /ya:-ji:-'la-yun g/ 17.15.2 ('he cut her here on the neck'), 13.1.4/5/6/7/8 ('we put a stick along here, and along here...', i.e., to set broken bone); /ana/-'ji:-'la-yun g/ 149.2.6 twice (with necklace). The other exx. are of the type [going/coming] along here' involving either motion or linear extension: /ya:-ji:-'la-yun g/ 26.1.3/4/5/6, 169.2.1 /ana/-'ji:-'la-yun g/ 149.4.3, 149.4.4; and Dist /yuwa-ga:-'la-yun g/ 149.4.3, 149.4.4, 148.3.5. Here the Dist exx. cited are linear-extension cases (distribution of tree spp.), while the Prox exx. involve motion with 'swim', 'go', 'paddle'. Note that /ya:-ji:-'la-yun g/ is sometimes found repeated several times; in the body-part ex. (136.1.4ff.) the repetitions indicate parallel lines (for several sticks bound to the broken limb), while in the swimming ex. (26.1.3ff.) we simply have repetition for emphasis.

The body-part exx. are more or less interchangeable with Centripetal DemAdv in /-alii/ (next section), the difference being merely one of perspective. The motion and linear-extension exx. do not seem to be very different in meaning from some uses of Centripetal DemAdv in /-ala/ (without /-yun g/), or indeed from some other adverbial formations which compete in some contexts with the Centripetal (i.e., Directional §7.14, lateral §7.21).

7.16 Centrifugal DemAdv in /-alii/.

The suffix /-alii/, found only with demonstratives, was introduced in §7.5 as part of the system of motional endings for DemPro; here we consider corresponding DemAdv forms (Table 7-11, below).

All textual exx. (total 44) involved the Prox root, showing /-alii/ added to the Locative DemAdv /ya:-ji/-'li/ and prefixed variants (§7.12). Imm forms were elicited but are probably rare or absent in real speech; recall from §7.5 (Table 7-4) that with DemPro as well, for practical purposes /-alii/ is confined to the Prox root.

These adverbs can usually be translated '[going] along here' or '[going] through here'. In spatial terms, we are dealing with a Prox starting point and a brief trajectory leading from it. Most exx. involve a small part of the body: /ya:-ji:-'li/ 7.15.3 ('she hit him here, on the back'), 10.10.1 ('she cut him in twoexo at the waist'), 10.12.3, 10.16.3/4, 17.7.4 ('water went through...

<table>
<thead>
<tr>
<th>Table 7-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centripetal DemAdv</td>
</tr>
<tr>
<td>Prox</td>
</tr>
<tr>
<td>Imm</td>
</tr>
</tbody>
</table>

§7.15, §7.16

312
Lateral derivative (/ya:-ji-ji:-'la-waj/) is mentioned in the Locative DemAdv (§7.12), as shown now in any text frequency worth mentioning are forms with /-waj/ added to /-wlaj/ or /-w aj/. However, Extent adverbs in /-ga-waj/ are treated separately below (§7.17) and /-waj/ added to a reduplicated Lateral derivative (/ya:-ji-jir-1-1a-waj/) is mentioned in the section treating such derivatives (§7.21).

The only DemAdv to be considered in this section which have any frequency worth mentioning are forms with /-waj/ added to a Locative DemAdv (§7.12), as shown now in Table 7-12 below.

Table 7-12

<table>
<thead>
<tr>
<th>Pergressive DemAdv</th>
<th>Imm Concrete</th>
<th>Dist</th>
<th>Anaph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prox</td>
<td>ya-j1-waj</td>
<td>da-Ju-1-waj</td>
<td>yuwa-gu-waj</td>
</tr>
<tr>
<td></td>
<td>anaw-va-ga-1a</td>
<td>/ya:-ji-yaj/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/ya:-ji-yaj/</td>
<td>/ya:-ji-yaj/</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Attested forms only shown (prefixed forms, and non-Concrete Imm forms, grammatical but not shown). As usual, attestations comprised include forms with postposition (but not other suffix) following. Prox /ya:-ji-waj/ also pronounced /ya:-ji-ya/.

Our initial observation about the frequencies in the table is an apparent concentration in relatively definite forms (see §7.1, and recall from §7.6 that Concrete /-w/ may have presupposing features as well). Let us examine all of the textual exx., looking for some or all of these characteristics:

a) definiteness;

b) emphasis, cf. /-waj/ with independent personal pronouns (§6.9);

c) pergressive meaning (‘along, through, by, among, around’).

Prox /ya:-ji-waj/ (or /ya:-ji-ya/) is found 54,3,3 (‘detribalised Aboriginals will be buried around here’ [instead of being taken to remote clan burial sites]), 12,3,2 (‘if the gum from the wattle trees are, however, a number of exx. involving motion away from ‘here’, they pertained to the Retrospective Pergressive noun form /ya:-ji-ya/). The exx. of /ba-gu-waj/ are 15,12,1 (‘he died there’), 95,4,4 (‘one emu fell, then another one they speared, and there it fell too’), 95,9,5 (‘kangaroo could not escape ring of fires. Suddenly, still there they speared it’), 112,5,2 (‘we tow the dugong along if we have only a small canoe, but if we have a large boat we put the dugong right in there’), 123,3,2 (‘if the gum from the wattle trees is soft we just break it off and eat it there, but if it is hard we put it in a can of water and soak it’), 125,15,3 (‘they would take the yams out of the native oven and eat them there as a light snack’), 163,3,4/5 (‘the truck was getting bogged, so they parked it there, ... they left it there, back with the cypress trees’); a further ex. is MT 16.

In some of these exx. the gloss is tentative. In the majority of exx. the contribution of /-waj/ is clearly dependent on /here/there’, ‘in this/place same place’. In 163,3,4/5, /ba-gu-waj/ is juxtaposed to the Retrospective Pergressive noun form /ya:-ji-ya/ ‘back with the cypress trees’.

The Prox exx. are more difficult to interpret because in this category it is more
difficult to differentiate deictic from definite (presupposing) nuances; the exx. glossed 'around here' or 'along here' might possibly be reanalysed as definite 'right here' (reasonable for MT 5 and NMET 5.4.3.3, not so good in 162.7.4). The Prox ex. glossed 'will take her away from there'. Both /-ala-yun-/ and /-w9ala-waj/ women were dancing'). Although it is somewhat unusual to have this /-w9ala-waj/ added to /-ala-yun-/ (for the latter see §7.15). The /ba-ga:-'la/ merely indicates centripetal direction and the point /-waj/ adds an incremental emphasis on the definiteness or sameness of the location in most instances, an unmarked use of /-waj/ with Locative DemAdv may be seen as compensation for the morphological incompatibility of Absolute /-yun-/ (§7.7), an important definite element in DemPro, with Locative DemAdv.

The conclusion that /-waj/ is mainly a definite marker with these adverbs is supported by the frequent occurrence of postposition /-waj/ 'still, only, nothing but' after then. Of the exx. already cited, several in fact have this postposition; see §7.30. There is one attestation of /-waj/ (actually, /-waj-bugij/) with the just-mentioned postposition added to an Allative DemAdv: 40.9.2 /ba-ga:-'la-wala-waj-bugij/ ('You take honey, firewood, etc., there [i.e., to the bachelors' camp]'). The nuance is hard to ascertain from this one ex., but since the bachelors' camp is a fixture and since delivering supplies such as honey to it is a recurrent daily operation, we can probably take this as grammatically definite.

Locative /-waj/ where the second element may be formally identifiable as Retrospective Pergressive /-waj/, is uncommon but attested with Locative DemAdv. In NMET we can cite only 68.4.7 /ya:-ji-yaj-gaj/ ('we will not take the old men there, they will stay back here'). From Hughes' texts we have TNT 24 /yuwa:-gu-waj-gaj/ ('We will not take the old men there; they will stay back here'). From Hughes' texts we have TNT 24 /yuwa:-gu-waj-gaj/ ('Some paperbark was there [Anaph, i.e., at her camp], and Winyaagi covered himself in it; as for her, [she was] back there [Dist]'). Although it is somewhat unusual to have this retrospective increment to the normally deictic Dist DemAdv, in this ex. the location in question has already been mentioned, and it is given as that rather than Anaph because of an intervening /ba-gu/ 'there[Anaph] referring to a distinct location (the woman's camp). A composite case marker found with nouns is Ablative-Pergressive /-ala-waj/ (§4.26) 'going' along __. In demonstratives, this /-waj/ is attested once with a Centripetal DemAdv, hence in a suffix sequence /-ala-w-alawaj/. The ex. is /ba-ga:-'la-wala-waj-bugij/ (with final postposition) 1.8.1 (magician in underground tunnel comes up at a place to find his bearings, then 'again still coming along this way he returned underground'). Here the /-ala-waj/ seems to stress the continuation of the trajectory, whereas /ba-ga:-'la/ merely indicates centripetal direction and the point of departure (Anaph 'there').

Hughes also has /ba-ga:-'la-yun-gala-waj/ TNT 23 with this /-ala-waj/ added to /-ala-yun-'/ (for the latter see §7.15). The context is: 'the diagnosticated as a man, (perhaps) that woman would take her away From there'. Both /-ala-yun-/ and /-ala-waj/ components emphasise going along through a sector of a trajectory, and perhaps in this ex. dragging the woman away is emphasised.

With DemAdv and with predicative DemAdv, the normal meaning of an additional Locative case suffix (see §6.25 for suffix /-ruj/ with nouns) is 'a bit farther on from here/there'. That is, adding /-ruj/ indicates a point in the vicinity of the point or small area which would otherwise be specified. With DemAdv the attestations are with /-ruj/ added to the (already) Locative DemAdv in /-ji-/ or /-gu-/ (§7.12). The common forms are Anaph /ba-gu-ruj/ (often with stylistic lengthening of first vowel) with 16 exx. in NMET and Imm /da-ji-ruj/ with 13. The exx. of /ba-gu-ruj/ or /ba-ji-ruj/ are 13.4.3, 13.13.2, 15.9.3, 17.4.2/6, 17.5.4, 21.9.1/2, 43.11.3, 46.1.4, 97.5.1, 162.3.2, 162.16.2, 166.25.3. Imm /da-ji-ruj/ is found in NMET chiefly when narrative perspective intrudes into a narration; the exx. are 1.4.3, 1.5.6, 2.5.2, 22.2.2, 22.8.2, 28.3.1/4, 29.3.3, 29.8.4, 29.10.2, 31.1.3 (twice), 45.8.4. Concrete */da-ju:-'ruj/ is unattested and apparently of doubtful grammaticality, probably because the /-ruj/ construction by definition specifies a new point whereas Concrete /-u-/ has definiteness connotations (§7.6). Imm /da-ji-ruj/ often co-occurs with MAdv /aogala/ 'on the way, en route' which emphasizes that the new point is still somewhere between the starting point and the terminus of the overall trajectory (e.g., 29.6.4).

Dist /yuwa-gu-ruj/ is found once in 43.6.5. Concrete /da-ji-ruj/ does not occur in the NMET texts but is grammatical, the sense being 'just over here' (a short distance from speaker).

The DemAdv type with /-ruj/ is commonly used to indicate small increments in a trajectory. There is no other conventional expression for such contexts as 'He went on a little farther and sat down' or 'He walked a little farther and sat down'. Quantifiers such as 'a little[distance]' do not regularly occur and there is no other adverb for 'farther'. Verb stem /-waj/yuma/- is used when a further event is implied after /-ruj/ and in such contexts as 'He went on a little farther and sat down'.

With Predicative DemAdv, /-ruj/ has the same meaning and can be translated '[is/are] just beyond there' or the like. Past tense translations are possible under the same limited conditions as for other predicative DemPro (§7.4). There are six exx. in NMET: Anaph WARA /ba-ju-ruj/ 97.5.3, 143.12.2; Dist WARA /yuwa-ju-ruj/ 143.12.7; Imm MAdv /da-ji-ruj/ 45.10.2/3; and Imm MAdv /da-ji-ruj/ 52.5.3. With nonpredicative (prefix) DemPro, /-ruj/ has its ordinary meaning as a Locative case marker (as with nouns), hence 'at/on/in this/that'. Most of the possible forms are uncommon, since English 'at/on/in this' as a complete prepositional phrase will usually
show up in Nunggubuyu as a simple Locative DemAdv 'here' (/ya:-ji/), and since English 'at/on/in this X' with some modified noun X will usually show up in Nunggubuyu either as 'here X-Loc' with DemAdv in apposition to case-marked noun or as 'this X-Loc' with case suffix on the noun only. The only forms with /-ruj/ after nonpredicative DemPro are Prox MANA forms meaning 'today' or 'on that day'. For further discussion and exx. see below, §7.31. Leaving aside these exx. (11 occurrences in NMET), we can cite just 5 instances: punctual Anaph MANA /a:-'ba-ma-miri/ 'at that [place]' 13.10.5, 13.21.3 (with Absolute /-yun-g-/); 1mm WARA /wa'-da-ma-miri/ twice 100.4.5, 100.4.6 with temporal sense 'amongst at the time of' those people' (1mm indicating the most recently deceased generation of elders, not the oldest within living memory); and Prox NA /na-'-gi-ruj/ 101.3.6 'chick will grow up' in[e., with] this one, in[with] the adult jungle-fowl bird', where the DemPro is in apposition to a Locative noun following a pause. From Hughes' texts we can additionally cite Anaph PI /war-uba-ru-yun-duj/ TNT 23 and Prox ANA (punctual) /ar-'-ni-ruj/ TNT 23, which are insufficient exx. to determine frequency of punctual vs. continuous forms of the /-ruj/ prefix (§7.3) in these nonpredicative exx., especially since most of the WARA and PI forms are morphologically indeterminate. However, the few exx. do seem to show that the punctual form is reasonably common. This suggests that with nonpredicative DemPro, suffix /-ruj/ is a genuine case suffix. On the other hand, with DemAdv as in /da-ji-ruj/ (see above), the fact that none of the 28 textual exx. shows punctual ANA prefix /a-/ indicates that /-ruj/ is not functioning as a real case suffix in that combination—a pattern which is consistent with the special meaning of this suffix with DemAdv. By contrast, in §7.20 we will see exx. of use of punctual /a-/ with DemAdv when followed by real case suffixes.

While we thus have even a morphological validation for taking the 'just beyond' sense with DemAdv (and unprefixed DemPro) as grammatically distinct from the usual locative sense of /-ruj/ (notably with nouns), there is a possible link. English glosses for /-ruj/ in locative sense include 'in, on, at', and perhaps 'by' in static sense ('It is by the door'). Some of these contextual glosses, notably 'on' and 'by', specify location near or on the surface of the following noun; if we take these, rather than 'in', as prototypical for /-ruj/, the sense 'just beyond' with demonstratives is not a sharp conceptual jump. We may add in this regard that in some instances 'in X' is expressed in Nunggubuyu by the Pergressive rather than Locative case (§4.23), that enclosures (e.g., houses, containers) played a relatively small role in traditional Nunggubuyu life, and that 'inside' is terminologically equated with 'under, below' (/ihiribala/).

7.19 Case suffixes with DemAdv and DemPro: Instrumental /-miri/. Like Locative /-ruj/ (above), Instrumental /-miri/ (discussed §4.27 with nouns) has a special meaning in most instances when used with demonstratives. The primary meaning is 'right as in 'right here' and 'right there', emphasising sameness of the location. The form with /-miri/ after Locative DemAdv like /ba-gu/ 'there[Anaph] is thus competitive with /-wa/ (§7.17, e.g., /ba-gu-wa-gi/), and in the case of the Imm root perhaps also the form /da-ju-/ with Concrete /-u/ added to the Locative DemAdv (§7.16, §7.12); however, recall that Absolute /-yun/ (§7.7), another potentially competing suffix with the Anaph root, cannot be added directly to a Locative DemAdv and so is not a factor here.

Because sameness is rather emphatically expressed by /-miri/, it is natural that it should co-occur frequently with Anaph DemAdv. Indeed, with Locative DemAdv we find 8 attestations of the Anaph root and none of the other roots in NMET: /ba-gu-miri/ 3.4.4, 3.5.4, 36.4.3, 95.10.1, 140.3.3; prefixed /an-uba-gu-miri/ 55.12.4, 113.8.4, Prox /ya-ji-miri/ 'right here' was heard occasionally, though it was not found in the texts. With the Imm root, /da-ji-miri/ and Concrete /da-ju-/miri/ are perhaps grammatical but /da-ju-/ by itself usually suffices since /u/- implies definiteness. Dist /yuwa-gu-miri/ 'right there' is not ordinarily possible because of the delictic nature of the root, and may be ungrammatical.

We have Anaph Allative /bu-guni-miri/ 'right[in]to there' twice 11.8.2/4. Suffix /-miri/ also occurs with DemPro. First, we have 166.7.3 /ar-'-mi-la-ya-miri/ 'along here [i.e., in an extended coastal area]'; this form /ar-/-mi/ is /-miri/ with punctual ANA form of the Prox root. Choice of punctual prefix is here influenced by immediately preceding /a-yumbu-ya/- 'northward', also with punctual ANA prefix /a-/.

Aside from this, most occurrences of /-miri/ with DemPro are preceded by the special meaning of the /-miri/ suffix with DemAdv. By contrast, in §7.20 we will see exx. of use of punctual /a-/ with DemAdv when followed by real case suffixes. Recall from §4.27 that /-miri/, unlike other case suffixes, normally takes the prefixless form of the noun. This pattern is retained in Instrumental forms of DemPro, so that in this instance there is a violation of the normal rule that prefixless DemPro have predicative status. There are only two occurrences in NMET with the Anaph root, one with Absolute /-yun-proceeding /-miri/. Thus /ba-ma-miri/, cited in the sense '[is/are] right there' in the preceding paragraph, shows up in the sense 'by means of that' 170.4.4, summing up a set of practices and fixatives (for painting) which are overtly or covertly Instrumental. Similarly, /ba-wa-gu-miri/ 111.2.4 must mean 'by means of that' (WARA class) and occurs with following Instrumental noun ('she doused him with that bush lily medicine'). The form /n-ar-uba-gu-gun/-mi/ TNT 24 seems to mean 'that [Anaph] same one here'; and if so is an ex. of /-miri/ emphasising sameness with a prefixed Anaph DemAdv. However, this is at best a rare combination, since /n-ar-uba-gu-gun/-mi/ is already clearly definite with Anaph root and with Absolute /-yun/ (§7.7), and this form without /-miri/ is found 48 times in NMET.
As a final note on /-mirt/ in the same sense, we should point out that postposition /-wu-gi:/ 'still, only, nothing but' competes with /-mirt/ in its contextual meaning 'still' (as in /ba-gu-wu-gi:/ 'still there'). The semantic difference is that /-mirt/ emphasizes absence of deviation from a given location, while /-wu-gi:/ stresses temporal continuity. The two do not seem to co-occur, although /-wu-gi:/ is found several times following /ba-gu-waj/ and similar DemAdv with /-waj/ ($\S7.17$).

7.20 Case suffixes with DemAdv and DemPro: /-mira-dhu/, /-wala/, /-wu-yu/, /-yungguyun g /, /-yi: /, /-yinYun g /.

In this section we discuss a number of additional case suffixes which occur now and then with DemPro and/or DemAdv, with more or less their regular case value as discussed for nouns in $\S4.20ff$. However, the adverbial combination /-uguy/, as in /ya:-nu:-'-wuy/ 'this way', is treated separately in $\S7.14$. In addition, Centripetal /-ala/ (which has affinities to Ablative /-wala/) is discussed in $\S7.5$, the form /an-uba-ni:-'la-wa/ 'after that' is covered in $\S7.8$, and the Ablative-Pergressive combination /-wala-waj/ is treated in $\S7.9$ (DemPro) and $\S7.17$ (DemAdv).

It should be noted that the forms to be mentioned here (as well as forms in /-ruj/ and /-miri/ in the preceding two sections) have not been counted in the tabulations of numbers of occurrences of non-case-marked DemPro and DemAdv in earlier sections of this chapter. However, the small number of these case-marked forms means that our main statistical generalisations in earlier sections will not be threatened.

All forms attested are listed in Table 7-13, below, along with the textual references. Since most of the forms are only attested from one to three times, it is difficult to draw any profound conclusions on statistical points.

One point of interest is whether the case-marked forms show the same patterns of NCinf preffixation as do ordinary nouns; recall that with the possible exceptions of /-mira-dhu/ and /-yu-wu/, the suffixes considered here generally favour the use of punctual prefixes ($\S4.8$), except that in negative contexts (including conditional protasis) the continuous prefix is required. Relative /-yu-wu/, on the other hand, shows a moderate preference for continuous over punctual, while for Originalative /-mira-dhu/ the paucity of exx. makes it difficult to determine prefix patterns.

The data in Table 7-13 are broadly consistent with the nominal patterns. DemAdv, like place names and some other NAdv ($\S4.3$), are formally of ANA class, and in case-marked forms we frequently get continuous /ana:-/ or punctual /a:-/ (and variants). DemPro are of variable NO, but do show tendencies to take punctual prefix forms with Allative-Dative /-wu-yu/ and Similative /-yi:/.

Two exx. in the list show continuous prefix (ANA,—note subscript in glosses) due to negation: /ana:-'-ni-yi: 136.1.7, /ana:-'-ji:-'la-yinYun g / 117.1.3.

$\S7.19, \S7.20$

<table>
<thead>
<tr>
<th>TABLE 7-13</th>
<th>Other Case Forms of DemAdv and DemPro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Originalative /-mira-dhu/</td>
<td>an-uba-ni-yung-gyu 162.22.4 ANA Anaph DemPro</td>
</tr>
<tr>
<td>Ablative /-wala/</td>
<td>ba-ni-yung-gala 71.16.3 unprefixed ANA Anaph DemPro</td>
</tr>
<tr>
<td>Alliative-Dative /-wu-yu/</td>
<td>nu:-'-ba-gi-wuy 5.20.5 MSG Anaph DemPro</td>
</tr>
<tr>
<td>Centripetal /-ala/</td>
<td>ya:-'-nu:-'-wuy 47.31.1 WARA Anaph DemPro</td>
</tr>
<tr>
<td>Ablative-Pergressive /-wala-waj/</td>
<td>ana:-'-ni-wu-yug 47.12.3, 113.1.5 ANA Prox DemPro</td>
</tr>
<tr>
<td>Originative /-miri/</td>
<td>an-uba-ni-yung-gala 139.15.4 ANA Anaph DemPro</td>
</tr>
<tr>
<td>Relative /-yu-wu/</td>
<td>ba-ni-yung-gala 164.2.5 ANA Anaph DemPro</td>
</tr>
<tr>
<td>Similative /-yi:/</td>
<td>an-uba-ni-yung-gala 139.2.2 ANA Anaph DemPro</td>
</tr>
<tr>
<td>Centripetal /-ala/</td>
<td>yira:-'-gi-yung-ga 90.1.1 WARA Anaph DemPro</td>
</tr>
<tr>
<td>Ablative-Pergressive /-wala-waj/</td>
<td>an-uba-ni-yung-gala 139.15.4 ANA Anaph DemPro</td>
</tr>
<tr>
<td>Originative /-miri/</td>
<td>an-uba-ni-yung-gala 162.22.4 ANA Anaph DemPro</td>
</tr>
<tr>
<td>Relative /-yu-wu/</td>
<td>ba-ni-yung-gala 164.2.5 ANA Anaph DemPro</td>
</tr>
<tr>
<td>Similative /-yi:/</td>
<td>an-uba-ni-yung-gala 139.2.2 ANA Anaph DemPro</td>
</tr>
</tbody>
</table>

$\S7.19, \S7.20$
We are here concerned with DemAdv and occasionally DemPro in derivatives usually translatable 'on this/that side', hence termed Allative DemAdv in /-guni/ (or Directional DemAdv in /-u-wuy/), with very high frequencies with nouns. The reason is basically that whenever semantically appropriate, since there is no obvious alternative form. However, Ablative /-wlala/ and Allative-Dative /-wluy/ show Absolute DemAdv /-yung-gaj-/ see §7.10. Thus English 'to that one' usually translates as 'from there[Dist]', shows a common meaning is '[clan, totem, flora-fauna this/that area'. The ex. of /yuwa-ga:-'la-yinYun g /, /yuwa-ga:-'li-yinYung /, /-yunY-jinYun g /. Some exx. with /-mira:dhu/, /-wlala/, /-wluy/ show Absolute suffix /-yun g -/ (§7.7) before the case suffix. In the Relative exx., this /-yun g / shows up with variant pronunciations /-yinY-jinYun g /, /-yin-jinYun g /. The shift of //u// to /i/ here is not regular and is not accounted for in our phonological rules, since most are straightforward and since textual citations are given. One of the exx., with /-yinYun g / (§7.17.1) involves case spreading from a verb in /-wyuy/. The sole ex. of /-yung-gaj-/ is unfortunately in an apparently muddled textual segment.

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### Table 7-14

<table>
<thead>
<tr>
<th>Subscript</th>
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<tr>
<td>prefix</td>
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<td>continuous</td>
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<tr>
<td>punctual</td>
<td></td>
</tr>
<tr>
<td>Prox</td>
<td></td>
</tr>
<tr>
<td>Dist</td>
<td></td>
</tr>
<tr>
<td>Anaph</td>
<td></td>
</tr>
</tbody>
</table>

#### a) DemAdv from Centripetal DemAdv

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<th>Unprefixed Dist Allative DemAdv</th>
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</thead>
<tbody>
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<tr>
<td>Prox</td>
<td>Dist</td>
</tr>
<tr>
<td>Anaph</td>
<td></td>
</tr>
</tbody>
</table>

#### b) DemAdv from Centrifugal DemAdv

<table>
<thead>
<tr>
<th>Subscript</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>continuous</td>
</tr>
<tr>
<td>Prox</td>
<td>Dist</td>
</tr>
<tr>
<td>Anaph</td>
<td></td>
</tr>
</tbody>
</table>

#### c) DemPro (Centripetal or Centrifugal), all attestations

<table>
<thead>
<tr>
<th>Subscript</th>
<th>Unprefixed Dist Centripetal DemPro</th>
</tr>
</thead>
<tbody>
<tr>
<td>punctual</td>
<td>continuous</td>
</tr>
<tr>
<td>Prox</td>
<td>Dist</td>
</tr>
<tr>
<td>Anaph</td>
<td></td>
</tr>
</tbody>
</table>

### Table 7-14

Lateral. The context prototypically involves two locations facing each other over an intervening divide (two sides of river, two lines of fighters squaring off, etc.), but can also involve other roughly similar oppositions and can sometimes apply to configurations such as that with four points (like the corners of a square). The translation 'on this/that side' is usually applicable, though in some nonprototypical contexts 'over here/there' might be better.

Although it is possible to elicit Imm and Anaph forms, in practice the system of four roots (§7.1) boils down in this subsystem to just Dist vs. Prox. As a result, use of Prox vs. Dist. Even where these DemAdv are used to specify more than two points, one or both of Prox or Dist is re-used with manual gestures keeping the locations apart.

The forms are shown in Table 7-14. The basic rule for the DemAdv is to take a Centripetal DemAdv (§7.15) or a Centrifugal
Centrif Dist DemAdv /wao-ga:-'li/ is attested 166.6.1 and 166.7.1. This form calls for some comment, since it is ostensibly derived from */yuwa-ga:-'li/, a Dist Centrif DemAdv with no attestations on 'here, this area'. Therefore the DemAdv is, in effect, the prefixed form /ana:-ji-ga:-'la/ of the same formation involving a personal pronoun, with Abitative /-a/ used instead of Centripetal /-a/; see §6.11.

From Prox /ya-ji-ji:-'la/ a suffixed form /ya-ji-ji:-'la-waj/ is attested twice in one passage 3.4.2/3 ("on this side [of bush]"). It is difficult to distinguish the two forms semantically on the basis of this single passage. For /-waj/ in general see §7.17. (Deprono do not occur very often in Lateral form. However, part (c) of Table 7-14 does present the attested exx. with textual citations. They show the same formal features as do the Lateral DemAdv: reduplication (P-3) obligatory for Prox and optional for Dist (perhaps obligatory for Dist except in unprefix forg as indicated by /ya-ji/-/ in part (b)), ending based on /wa-ga:-'la/ or Centrif /-a/ (cf. §7.5 for the unprefixed inputs).

Although Lateral forms are normally confined to DemAdv and DemPro, one ex. did turn up of the same formation involving a personal pronoun, with Abitative /-a/ used instead of Centripetal /-a/; see §6.11.

"Facing here/away" derivatives /ba-gunu:-'/, /baguwanagu/, /-ba-ga:-'la/.

Among the more important motional DemAdv are Allative /ba-gunu/- 'to there' (§7.13) and Centripetal /ba-ga:-'la/ 'from there [to here]' (§7.15), both from the Anaph root /ba/ (cf. §7.5 for the unreduplicated inputs).

The really important forms are thus Centripetal /ya-ji-ji:-'la/ (Prox) and /ya-ga-ga:-'la/ (Dist). Other DemAdv of some importance are the prefixed forms of these two, plus Centrif DemAdv /ya-ji-ji:-'lil/ and /wa-ga:-'la/.

Attentions of case-marked forms have already been given in Table 7-14 (§7.21), except for /wa-ga-ga:-'la-waj/ 'in the other [far] side', which is found 166.2.2, 16.7.1, 25.5.5, 35.4.3, 35.7.2, 35.8.1/5, 111.4.8. Simple /wa-ga-ga:-'la/ 'on the other side' is found 3.5.2, 11.11.6, 13.1.4, 30.6.2, 126.6.2, 166.4.4. The variant /yuwa-ga-ga:-'la/ with unreduced root is seen 17.13/1. Prefixes /an-a-/-a-/-/ya-ji-ji-/-'la/ 3.5.3, 18.6.3, 97.5.4. Prox Centrif /ya-ji-ji-ji:-'la/ is found 3.5.3, 5.4.5, 5.5.5 (twice), 13.2.1/2, 13.3.4, 17.16.4, 35.4.6, 35.5.2/3, 43.10.5 (twice), 95.2.1/2. 95.3.2/3, 95.4.1, 95.9.2 (twice), 116.4.4, 166.4/1. Cases with two instances on the same line or successive lines usually indicate double use of the DemAdv to specify two distinct locations (with manual gestures); there are also several passages involving opposition with /wa-ga-ga:-'la/. Prefixed /ana-/-a-/-ya-ji-ji-/-'la/ 109.5.3.

Turning to Lateral Centrif DemAdv, /ya-ji-ji-/-'la/ is found 30.2.4 ("far away from here'"), 30.6.2 ("were on this side'"), while its unfixed variant /ya-ji-ji-/-'la/ occurs (sometimes goannas over there and over here') and 166.25.1 ("We used to eat roots [there], and here too, it was the same thing"). While the first of these exx. (30.2.4) seems to have the sense 'from here', in the others there is no clear sense of 'here' as point of departure, and in general there is little practical difference between /ya-ji-ji-/-'la/ (Centripetal) and /ya-ji-ji-/-'la/ (Centrif), except perhaps that the latter may suggest a more indefinite extension. Centrif Dist DemAdv /wa-ga:-'la/ is attested 166.6.1 and 166.7.1. This form calls for some comment, since it is ostensibly derived from */yuwa-ga:-'la/, a Dist Centrif DemAdv with no attestations and which seems in fact not to exist (Table 7-11, §7.16). The exx. of /wa-ga:-'la/, if I understand them correctly, can be translated 'here on the other side' or ('back here'), involving a shift from a discourse segment focusing on a distinct location to one focusing on 'here, this area'. Therefore the Prox Dist opposition in Lateral forms may be skewed in ways not possible with simple (non-Lateral) forms.
The simple NAdj form with just a pronominal prefix present is found in 162.7.3 /wu=baguwagala/ 'buffalo' was heading/facing [toward us]'. In this particular ex. it may be that the animal is moving and not merely facing in the centripetal direction. Most of the textual exx. involve complete verbalisation including /-ma/.

The Inchoative suffix (§10.8) and an inflectional ending. We thus have /=bagawaga:la-ma-/ 'to be facing this way' 65.8.4 and its opposite /buguwugunu-/-ma-/- 'to be facing away, to look away' 65.10.1, 65.12.5/6, 75.2.6.

The form /buguwaguni/ should be distinguished, at least synchronically, from NAdj or NAdv /wu,buguwagun/ 'for good, permanently', although the latter will regularly become /=buguwuguni/ following a stop or nasal by Hardening p-18 (in the same contexts true /buguwaguni/ will become /-ma=buguwaguni/ by n-u-Epenthesis P-1, so they will still be distinct). For more /wu,buguwaguni/ and compound variant /w 2 uguni/ see §7.31.

7.23 Compounds with /mulung/- 'group' and Gentilic /nuN/-.

Here we briefly mention compounds (or derivatives if you prefer) involving a demonstrative stem plus a special derivational initial.

First we have /mulung/-, an initial which occurs as part of the PI form of two NAdj (§4.16) and occasionally in verbal compounds to indicate a group (do not confuse with /mulung/- 'elbow'). This occurs with demonstrative stem in the form /wara-mulung-uda-wi-yung-gaj/- 'that bunch of people, that crowd' 69.6.5/6, 139.14.3. The first prefix is just the PI NCinfl prefix and is optional. The second prefix (compound stem involves /-ma/). The ex. /wu=mulung-yung-gaj/- with root /-uda/-, WARA NC suffix /-wi/-, and the suffix sequence Absolute-Pergressive /-yung-gaj/ (§7.10). The ex. 139.14.3 is the same contexts true /wu=mulung-yung-gaj/ will become /-ma=wu=mulung-yung-gaj/ by n-u-Epenthesis P-1, so they will still be distinct). For more on /wu,buguwaguni/ and compound variant /w 2 uguni/ see §7.31.

Although the NC suffix in /wara-mulung-uda-wi-yung-gaj/- is WARA /-wi/- rather than PI /-ru/-, this seems to be because the form has a specialised as such, and I do not think that other NC variants are in use.

The other initial, /nuN/-, is found chiefly with certain clan names and similar expressions for groups of people (§18.12). In the demonstrative type system, we can cite two forms: /wara-nun-gubawalu-wi-yin Y-unY/- 139.13.3 'of those people', and NAdj form with intrasitive prefix /wu=nun-gubawalu/- 7.4.4 'They[FDU] were there for a long time'. The first of these exx. seems to refer to an earlier generation now deceased. Semantically, these forms therefore resemble forms like /-ba-ni-yung-gaj/- 'long ago in the old days' (§7.10). The latter form involves Anaph root /-uba/- and ANA class suffix /-wi/- or WARA suffix /-wi/-, and this sequence recurs in the /nuN/- forms cited. We assume that /-gaj/ is inserted by Velar-Insertion P-6. In the ex 139.13.3, /-yin Y/- is the surface form of Absolute /-yung-gaj/ (§7.7, §7.20) before Relative case suffix /-yin unY/-.

7.24 Extent DemAdv in /-ga-waj/.

In the demonstrative system, we have seen /-wa/- as the Transverse suffix with DemPro (§7.5), as a suffix added to already complete DemAdv (§7.17), and (sometimes specifically as /-a-j/) as part of some suffix sequences (§7.9-10).

We have not yet covered a special type of DemAdv ending in /-ga-waj/ where /-ga/- is arguably a morpheme taking the place of Locative DemAdv ending /-gu/- or /-li/- (§7.12). The forms are these:

Prox /ya-ga-waj/ 13.39.3, 13.43.2 (three times), 112.5.4 (twice), 169.19.11 also TNT 28
Imm /da-ga-waj/ 1.8.12, 119.6.2; also TNT 9, 26
Dist /yusa-ga-waj/ 71.28.1, 197.3.5

The usual sense is 'this/that high', 'this/that deep', etc. In other words, these are deictic forms indicating how high the water is/was on someone, or how deep a hole way, generally with reference to the speaker's body or some other conveniently visible standard (such as a tree). The ex. of /yusa-ga-waj/- 71.28.1 does not seem to be of this type, but its precise sense is not clear.

The Prox form has /ya/- with short vowel, cf. usual Prox root /ya/-, it seems that at least the Prox form (the most common one) has become an independent lexical item whose internal structure is opaque.

These forms are used chiefly in connection with measuring the vertical dimension within the range effectively conveyed by a minimal indication of a point on the body or some other standard. For a different type of linear measurement expression used chiefly in connection with the vertical dimension, see §7.28.

Prox /ya-ga-waj/ should not be confused with the particle /yaga/- (§12.12).

7.25 Type derivatives: /i-junY/-, /i-jin Y/-, /i-jin Y-unY/, /bu-jun unY/.

The forms to be considered here are best considered nouns syntactically. In their stem forms, they are highly irregular and frozen derivatives which are, however, still identifiable based on the Prox and Anaph demonstrative roots.

These derivatives can be translated 'this type, something like this, this sort of thing' (Prox) or counterparts with 'that' (Anaph).

The Prox forms are used when the speaker simultaneously indicates some object or substance to the addressee, and may or may not co-occur with an explicit noun (if they do, we have syntactic apposition). The Anaph forms do not involve this deixis and are thus generally used with a noun or other descriptive phrase.

The Type derivatives may occur with or without NCinf prefix (continuous prefix required in negative contexts). If there is a NCinf prefix, either the prefix agrees with the NC of the referent, or the ANA class is used as unmarked class (ANA forms are even found occasionally when a noun of another class is juxtaposed). The Prox forms show root /1r/-, which of course becomes /1r/- word-initially by rule P-5. Since Prox is generally /ya/-, we could say that the shift of /1r/- to /1r/- is due to the following
This type of perspective shift is formally simple, and the main analytical issue it raises is how extensively such direct quotations are used. However, there is also a partial perspective shift in which demonstrative categories are shifted to conform to the viewpoint of the narrative actor while the remainder of the formal structure (including tense marking) is from the speaker’s viewpoint.

In referring to locations (or spatially located persons or objects), if the speaker chooses not to use the Anaph demonstrative (relating the location to one previously mentioned or otherwise understood), the remaining (chiefly deictic) demonstratives Prox, Imm, and Dist may be used to locate with respect to narrative actor. This is sensible since the speaker may be relating an extended narrative about events in a remote location such that Prox and Imm could not be used to indicate locations around the speaker. Partial perspective shift allows the speaker to use Prox and Imm to index locations around the narrative actor, thus permitting maximal usage of the demonstrative categories. In this usage, while both Prox and Imm are repeatedly attested, it appears that Imm is preferred, even to index locations embracing or very close to the actor of reference.

Within the context of partial perspective shift we must also consider the choice between predicative DemPro (prototypically used in present tense positive ‘[is] here/there’, literally ‘[is] this/that’, see §7.4) and a Locative (or other) DemAdv (‘here/there’). Although events in past tense are ordinarily events in the narrative actor’s viewpoint, so that DemAdv rather than predicative DemPro should be expected, perspective shift permits either of the two (we could say that use of predicative DemPro represents a slightly greater shift toward narrative actor’s perspective). However, even when predicative DemPro is used, accompanying inflected verbs remain in the past tense (or whatever tense is appropriate from speaker’s here-and-now viewpoint).

One recurrent context in the narrative texts in NMET is of this general type: X was looking (for Y) and then Y came into sight. This is commonly expressed in Nunggubuyu as ‘... there he arrived’, or some variation on this pattern. The phrase glossed ‘there was Y’ is usually an Imm predicative DemPro with optional co-occurrence of a NP for Y, a good example being /da-gi ni wali-n Y/ ‘... there he arrived’ 1.3.3. Because Y’s location is semantically focal, a predicative DemPro is more common than an Imm DemAdv here. However, full perspective shift does not occur, and even an accompanying phrase like ‘...he arrived’ (as in this textual ex.) remains in past tense. Although most of the narrative includes the Imm demonstrative, we can also cite a few with Prox predicative DemPro, as in 28.6.4-5 (‘...he looked and here she was’), the form being /ya-gi/.

A Locative or other DemAdv in perspective shift is most common when the location is not quite as focal as in the previous exx., i.e., when there is some focal event or activity (other than tuning in).

Thus Imm Locative DemAdv /da-ji/ ‘there’ occurs in 1.8.6 in the context ‘the doctor–magician swam back past the snakes, and the enthralls [which he was carrying] were gleaming there’; another ex. is /da-ji/ in 18.20.7: ‘They left white clay there’.

§7.25, §7.26

10/3 by V-Fronting P-50, a set of unproductive and morphologically restricted shifts of this type. The complete Prox derivative is normally /a:-ni:/ ‘like this’; see Table 7-13 (§7.20).

The concept of perspective shift has been briefly mentioned in some earlier sections of this chapter. It involves a full, or more often partial, breakdown of the division between the perspective of the speaker and that of some participant in a narrated situation.

The most obvious grammatical forms relevant to such shifts are verbal inflection (notably tense) and demonstratives. An instance of full perspective shift should involve adopting both the tense and demonstrative categories appropriate to the narrative actor in the narrated situation, as in direct quotations. In Nunggubuyu, this occurs only in quotations, whether of spoken discourse or mental events (such as intentions). For example, English He decided to go this way is expressed in Nunggubuyu as ‘I will go that way’. As for English ‘I will go this way is expressed in Nunggubuyu as ‘I will go that way’. However, there is also a partial perspective shift in which demonstrative categories are shifted to conform to the viewpoint of the narrative actor while the remainder of the formal structure (including tense marking) is from the speaker’s viewpoint.

In referring to locations (or spatially located persons or objects), if the speaker chooses not to use the Anaph demonstrative (relating the location to one previously mentioned or otherwise understood), the remaining (chiefly deictic) demonstratives Prox, Imm, and Dist may be used to locate with respect to narrative actor. This is sensible since the speaker may be relating an extended narrative about events in a remote location such that Prox and Imm could not be used to indicate locations around the speaker. Partial perspective shift allows the speaker to use Prox and Imm to index locations around the narrative actor, thus permitting maximal usage of the demonstrative categories. In this usage, while both Prox and Imm are repeatedly attested, it appears that Imm is preferred, even to index locations embracing or very close to the actor of reference.

Within the context of partial perspective shift we must also consider the choice between predicative DemPro (prototypically used in present tense positive ‘[is] here/there’, literally ‘[is] this/that’, see §7.4) and a Locative (or other) DemAdv (‘here/there’). Although events in past tense are ordinarily events in the narrative actor’s viewpoint, so that DemAdv rather than predicative DemPro should be expected, perspective shift permits either of the two (we could say that use of predicative DemPro represents a slightly greater shift toward narrative actor’s perspective). However, even when predicative DemPro is used, accompanying inflected verbs remain in the past tense (or whatever tense is appropriate from speaker’s here-and-now viewpoint).

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In instances of partial perspective shift such as these, we should recognize that the use of deictic categories is tricky. Although we have been speaking of the adoption of a given narrative actor's viewpoint, the viewpoint might in some cases switch from that of one actor to that of another actor, or be a kind of merged joint perspective of the actors, or be that of an invisible "obscure observer," or be linked to a location as much rather than to a human actor.

A special type which we will refer to as reverse perspective shift occurs when the speaker explicitly points to objects or locations in the here-and-now of the speech event, referring to [typically distinct] objects or locations of the original narrative event. This procedure is common in two contexts: a) mention of a body part or b) specification of length or a geometrical configuration. In both cases, Prox demonstratives are usual.

Although of course it is possible in Nunggubuyu to say, 'He hit me in the stomach' (perhaps as a compound 'he-ne-stomach-hit-Past'), it is perhaps more common in idiomatic Nunggubuyu to say 'He hit me here' with an accompanying manual indication. Moreover, 'here' can also be used when the person hit in the narrative was not the speaker, hence 'He hit him here'. Some textual exx. involving /ya:-ji/ 'here' in connection with a body part are 3.4.1, 7.9.5 ('she gulped it down, and it stopped here, in her belly'), 7.15.2, 10.15.5 ('she hit him here', i.e., in his hand), 11.12.3/4, 16.14.3, 45.2.1, and 71.23.4 ('he speared [them] here and here and along here'); note that explicit body part terms may or may not be added in apposition to the DemPro.

Expressions of linear measure (length, height, width) are commonly of the type 'like this and that' (i.e., 'as long [far, wide] as from here to that [e.g., tree over there]', containing both a Prox and nongproximate (Imm or more often Dist) demonstrative.

Such expressions, which are dealt with in §7.28, may be embedded in narratives, and are in fact the only explicit expressions for specific absolute measures.

Related to this are expressions (with accompanying manual indication) specifying the geometrical configuration of two or more objects or locations relative to each other. Thus, to indicate that three persons were in a row, or that they were at the points of a potential triangle, the speaker will say 'One was here, another here, another here', pointing to (or making marks in) the ground to indicate the arrangement (but not the absolute distances between the original objects or locations). In this context, the speaker may adopt the perspective of one of the objects, referring to it as being 'here' (Prox) while the others are 'there' (Imm or possibly Dist); or all may be specified by Prox forms as perspective follows the speaker's successive manual indications. Some relevant exx. are 9.2.2/3, 14.19.2/3 (p. 102 of MBST with '14.18' emended to 14.19), 30.3.2/3, and 55.7.3. Many instances of Lateral DemAdv (see §7.22) meaning 'on this side' and 'on the far side' occur in similar configurations.

Although our terminology is somewhat arbitrary, the term 'reverse perspective shift' is based on the feeling that these last few types of exx. represent a jump out from the narrated situation to an aspect of the speaker's and hearer's here-and-now environment, while the previous exx. of (simple) perspective shift seem to involve a (full or partial) absorption by speaker and addressee into the perspective of a narrative actor or the like.

However, in both cases the formal consequence is that expressions associated with the speaker's here-and-now context are worked into a narrative (which is usually dealing with situations distant in time and space).

7.27 Demonstrative categories associated with pronominal persons.

As in a number of languages, in Nunggubuyu there is a direct syntactic relationship between Prox and 1st person pronouns, and between Imm and 2nd person pronouns. The specific manifestation of this is the common use of /ana:-'-ni/ 'this[ANA]' in apposition to a 1st person pronoun (independent or prefixal), and similarly of /a:-da-nu:-'/ 'that[ANA, Imm]' in apposition to a 2nd person pronoun. Note that the forms are in the nonhuman ANA class rather than agreeing with gender/number of referent; it is therefore arguable that these DemPro literally designate the location of the referent rather than the referent as such (cf. English you there, we here). A second point to notice is that, while all pronouns and pronominal affix systems carefully distinguish lst exclusive from lst inclusive, /ana:-'-ni/ 'this' is the appositional demonstrative for all 1st person pronouns, showing that a general 1st person category does exist at least as a cryptotype. (Likewise, stem variants for kin terms depending on pronominal person of propositor, i.e., 'possessor,' involves an opposition between a general 1st person and 2nd and 3rd persons, see Chapter 5.)

The most common textual exx. of appositional DemPro with pronouns are expressions of the type 'it is me' by which the speaker identifies himself/herself to an addressee. The expression in Nunggubuyu is usually some variant of /nayay-waj ana:-'-ni/ 'with Emphatic /-waj/ in the pronoun (§6.9), and one could argue that this is literally 'this, [it's] me!' with the DemPro acting as a kind of topic. Textual exx. include 3.6.1/4, 5.6.2, 16.11.3, 20.10.2, and 40.5.5/6. A similar case but with /na-ga-waj/ 'it is us[excl.]' /nu-ru-waj/ 'it is us!' in several exx. including 18.12.2/3. A slight variant on this construction is the predication of names, roughly 'I [am named], if present, is a noun including NCder prefix rather than a verb or participle), with an appositional DemPro typically juxtaposed to the independent pronoun, which may or may not contain Emphatic /-waj/. Thus 20.14.3-4 /nayay-waj ana:-'-ni jiwajiwangali/ 'I [named] J', cf. also 20.11.1, and for ExPl /nu-ru-waj/ 'it is us[excl.]' elsewhere in text 20.2.

Most of the similar 2nd person cases with /a:-da-nu:-'/ are interrogatives involving WH words like /yan-

may be added as (optional) reinforcers to a phrase or clause containing the associated pronominal category. It is difficult to catalogue relevant textual exx., since in many specific passages the /ana:-'-ni/ or /a:-da-nu:-'/ could arguably be a real ANA class demonstrative not in apposition to the 1st/2nd person pronominal. In 47.13.2, where /ana:-'-ni/ follows /n^=a-direp=sawi:-'-ma/' /'I am afraid', I believe that /ana:-'-ni/ has the function of being in apposition to the 1st person pronoun, but it could possibly mean 'this' (as in 'I am afraid [of] this'). A probable ex. of 2nd person /a:-da-nu:-'/ is in 46.5.2 with juxtaposed /ni:na-nim-sawi:-'-y/ /'you[MDu] have died?'

7.28 Deictic measures of distance: /n^=unYju...n^=a/.

There are no abstract units of linear measure comparable to 'metre', 'kilometre', or the like. Instead, deictic measures of the type 'like [from] this [to] that' are used (the translation is not exactly literal), with the Prox location as the initial point and some convenient object or other point as the endpoint (commonly represented by an Im or Dist demonstrative). See also §7.29.

The ordinary Nunggubuyu expression is of the type /n^=unYju DEM Z Y/, where both DEM and Z Y represent predicative ANA class demonstrative pronouns. Here /n^=unYju/ is a particle meaning 'like, just as'; it is often preposed to a noun with Similative case suffix /-Yi:/; see §4.29, §12.13. The other particle, /n^=a/, is a kind of 'and' conjunction which expresses continuity between the constituents which it links (§12.4.). A typical ex. would therefore be /n^=unYju yai-ni n^=a yuwail-samu:-'/ 'like [from] this [to] that[Dist]', with the Dist demonstrative specified either by a manual gesture (pointing out a tree, for example) or by a place name or other NP.

The Prox form seems always to be /yai-ni/, but the paired Dist demonstrative may be either the structurally parallel /yua-ni:/ or may occur in the form /or:'-wai-ni/ from /a-uwy-ni:/ with the punctual form of the ANA NC prefix; thus /n^=unYju yai-ni n^=a or:'-wai-ni/ 1.8-6-7. Other textual exx. show that the construction is formally flexible, allowing the Dist form to precede the Prox, allowing omission of one of the particles, etc.; see 5.19.4, 21.6.1-2, 41.22.6, 112.1.3-4.

Even when the measure refers to distances between objects or actors in a narrative, the /n^=unYju...n^=a/ phrase refers directly to the physical environment of speaker and addressee; it thus may constitute a special type of shift of spatial perspective (§7.26).

7.29 Cardinal directions: compass points, up/down.

Cardinal directions are expressed by NAdv which are not based on any of the four demonstrative roots, but can be handled in this chapter for convenience. They have complex and irregular paradigms, shown in Table 7-15, below. We do not give complete lists of textual citations here, since all forms indicated in the table are also listed in the dictionary as separate entries, with NMET citations included.

<table>
<thead>
<tr>
<th>Cardinal Directions</th>
<th>'north'</th>
<th>'south'</th>
<th>'east'</th>
<th>'west'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loc wunumbi</td>
<td>wagay</td>
<td>gamali</td>
<td>argali</td>
<td></td>
</tr>
<tr>
<td>Rdp wunumbi-wagay</td>
<td>gam-gamali argali(:-) argali</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All wunumbi-yaJ wagya yaJ</td>
<td>gamali yaJ argali yaJ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abl wunumbi-yaJ wagya yaJ</td>
<td>gamali-:-la argali-:-la</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rdp Abl-Per arwar-yaJ</td>
<td>hibirala-wagya yaJ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All arwar-yaJ</td>
<td>hibirala-wagya yaJ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abl arwar-yaJ</td>
<td>hibirala-wagya yaJ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abl Per arwar-yaJ</td>
<td>hibirala-wagya yaJ</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Like other NAdv, these forms may take ANA class NC prefixes, and must do so in negative contexts. As with place names and many NAdv, the simple (unmarked) form regularly functions as locative ('in the north', etc.). There is a reduplication (usually regularly formed using rule P-2, but irregular in the case of 'up' and losing a final semivowel in that of 'south'); the reduplication seems to indicate greater distance from speaker than the simple Loc form but may also perhaps indicate distributivity.

The semantically ablative (All) form is generally based on an ending which may be associated with the nominal case suffix /-wa:j/ or /-wa:j/ (Pergressive), as in /wunumbi-yaJ/-yaJ [going] northward'. That is, the distinction between Allative and Pergressive, kept for nouns, is neutralised with these adverbs. There is a irregular All form for 'west' with otherwise unattested suffix /-waj/ (this is a Warndarang borrowing, incidentally). In the case of 'up', the usual form is /arwai-yaj/, showing an irregular truncation of the end of the root (see also vocalic change to /i/ before /-yaJ/ with 'north' and perhaps 'south'). With 'down', the regular Allitative suffix /-u/j/ is possible and may be distinct semantically from the form with /-wa:j/.

The semantically ablative (Abl) forms show Abl suffix /-al/, often becoming surface /-ala/ by phonological rules. With 'east' and 'west', however, the underlying form must be /-al/ because of the operation of W-Contraction P-49, cf. Centripetal /-a/ with other demonstratives (this chapter), but note that

Table 7-15

332

§7.27 to §7.29

333
the Abl of 'west' and 'east' is not semantically specialised as a Centripetal formation. The Abl of 'south' is irregular with suffix /-yan/ (or possibly /-wan/ with later phonological rules); there are no other attestations of this ending in the language. With 'up' and 'down', the combination of Ablative and Progressive case suffixes ($8.26$) is common in a sense like '[going] along through_'. Most of the textual exx. involve reduplication as well. This formation does not seem to occur with the compass-point terms.

The semantics of the four compass points is not unusual. In some contexts the terms are slightly skewed to correlate with the predominant configurations of the local geography, so that 'north' and 'south' are bent slightly to conform to the coastline, 'east' focuses on Groote Eylandt, and 'west' indicates inland areas. Alternatively, some bending may be made to associate the terms with the dominant wind directions, so that 'north' is bent slightly to the NW to correlate with the prevailing NW wind of the monsoon season and 'south' with the prevailing SE wind of the dry season.

The more interesting semantic patterns, however, are found with 'up' and 'down'. In some contexts the standard of reference is vertical, but in real life it is more usual to find the terms in specialised meanings. Thus 'up' may mean 'uphill, uphiller', or generally 'in the interior', while 'down' may mean 'downhill, downriver', or generally 'in the coastal area' or even 'offshore'. Thus the clan name /num-nhabalba/ based on the stem 'down' is applied to a group whose estate is in the coastal lowlands. In addition, 'down' in some contexts is translated 'inside', since being under something and enclosed in it are not linguistically differentiated in this language.

For relevant textual references see the dictionary entries.

7.30 Postpositions with demonstratives: /-wUgi/.

Postpositions (see §2.23, §4.32) are last-position suffixes which are typically added to words of any inflectable type (i.e., nouns, demonstrative, pronouns, verbs) but not particles. There is nothing very remarkable about their uses with demonstratives.

Since the only common postposition with demonstratives is /-wUgi/, we begin by disposing of the others. Conditional /-ma/- 'if' can be added to a demonstrative (functioning as NP) or to a DemAdv. The textual exx. are /ana-/ 'if-1a-ma/-; 52.5.3 and /-wUgi/- 'if'; 50.1.6 (Centrip DemAdv, Table 7-10); /-wUgi/- 'if'; 50.1.6 (All DemAdv, Table 7-9); /-wUgi/- 'if'; 50.1.6 (Loc DemAdv, Table 7-9); /-wUgi/- 'if'; 50.1.6 (Table 7-9); with nonpredicative Mdg Anaph DemPro (Table 7-2) /-wUgi/- 'if'; 79.1.1 and the same form plus Absolute suffix /nu/- 'if'; 79.1.1; or variant /nu/- 'if'; 79.1.1; (§7.7) 91.1.4, 92.1.4, 80.1.1, 89.1.1, 90.1.2/3. On conditional syntax see §2.23.

Evitative /-ma/- (§8.8) happens to be added to a demonstrative in the form /ya/-/ma/- 172.1.3 (predicative DemPro, Table 7-1). Postposition /-ma/- occurs twice with demonstratives. In /-wUgi/- 'if' we have an Allative DemAdv (Table 7-8) with /-ma/- 'if' associated with negation; in /-wUgi/- 'if' we have (untranslated) narrative use with predicative DemPro.
The usual way to indicate the passage of from one to a few days is to use /ya-ya/ 'slept, spent the night' with the appropriate subject, repeating the verb to indicate how many nights passed. To indicate a particular day in such a context, a demonstrative form of MANA class, agreeing with /min(ng)anga/ 'night [unit of passage of time]', may be used. The same demonstratives may be used to mean 'today' in opposition to the immediately preceding days. Textual exx. are /mana:-'-ma-ruj/ (Loc suffix, Prox DemPro) 'on this day' 62.7.1/3/4, 115.5.5/6, and 115.6.3; /ama:-'-ma-ruj/ (same as preceding but with punctual form of prefix) 62.7.1; /mana:-'-mi-ruj/ 'on this day' 39.6.2 or 'today' 71.15.3; /mana:-'-ma/ (like preceding forms but without Loc suffix) 'on this day' 71.15.4; and predicative form /ya:-ma/ 'on this day' (apparent meaning) 115.5.3. All exx. of this usage involve Prox roots even with past or future time reference.

There is also a nondemonstrative system including the three stems /agalgi/ 'yesterday', /yimbaj/ 'today', and /aga~ay/ 'tomorrow'. In past narrative contexts the frame of reference can be shifted: 'the preceding day', 'the same day', 'the following day'. The stem /yimbaj/ may also have the general sense 'nowadays' in opposition to distant past or future. Distant past in a general sense is usually specified by the demonstrative /o:-'ba-ni-yung-gaj/ 'long ago, in the old days' or a variant with different prefix form (§7.10); this means something like 'back at that' (Loc suffix, ANA class) if analysed morphologically, but is a frozen combination.

By relative time we mean relations like 'before X', 'during X', and 'after X' where X is some event or moment. 'During X' may be translated into Nunggubuyu by adding progressive case suffix /-wzaj/ to a verb form, as in /nl=ya-nggi-wala/ 'after he went' (§16.6). 'After X' can be expressed in several ways. Ablative case suffix /-w alai 'from' may be added to a verb or other predicate with the meaning 'after', as in /nl=ya-nggi-wala/ 'after he went' (§16.6).

Expressing 'before X' is the most difficult (nowadays English before is not uncommon in Nunggubuyu). In most narrative contexts it is assumed that the order of utterance of clauses indicates the temporal order of the respective events. To emphasise 'before X', where X is a clause, one can use a Past Potential verb form (§8.8), i.e., [when] X was about to happen, but this usage is not very common. Another form is 'while not [yet] X' (§7.19.3, see §16.6).

For expressions relating to time of day, and to seasons of the year, see lexical references in p. 326 of the dictionary (for time of day add /-wlalir=/lha-/ with /=lha-/ 'to stand', meaning '[sun] to be high in sky [at noon]').

### Chapter 8

**Outline of the verbal inflectional system**

#### 8.1 Tense-Aspect-Mood-Negativity categories.

The essential grammatical categories marked in verbs, excluding pronominals and derivations, are these:

<table>
<thead>
<tr>
<th>Tense</th>
<th>Aspect</th>
<th>Mood</th>
<th>Negativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past</td>
<td>Punctual</td>
<td>Actual</td>
<td>Positive</td>
</tr>
<tr>
<td>Future</td>
<td>Continuous</td>
<td>Potential</td>
<td>Negative</td>
</tr>
</tbody>
</table>

We will use Present as a synonym for Nonpast Actual combinations, and Future for Nonpast Potential.

There are some restrictions on combinations of categories from the four dimensions. Evitative ('lest...') distinguishes Positive from Negative but has no tense or aspect distinctions. In addition, aspect is neutralised in all Negative combinations, and also in the Past Potential Positive and in the Present Positive. Therefore the full set of possible combinations is as shown in Table 8-1, below.

#### Table 8-1

<table>
<thead>
<tr>
<th>Past Actual</th>
<th>Past Potential</th>
<th>Present Positive</th>
<th>Future Punctual</th>
<th>Future Continuous</th>
<th>Evitative Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>Past Actual</td>
<td>Present Positive</td>
<td>Future Punctual</td>
<td>Future Continuous</td>
<td>Evitative Positive</td>
</tr>
<tr>
<td>Negative</td>
<td>Past Actual</td>
<td>Present Positive</td>
<td>Future Punctual</td>
<td>Future Continuous</td>
<td>Evitative Positive</td>
</tr>
</tbody>
</table>

Table 8-1  §8.1
8.2 Formal expression of the categories.

The categories in Table 8-1 are expressed formally by complex combinations of a) inflectional suffixes, see paradigms in Chapter 11; b) choice between A and B form of pronominal prefix, see Chapter 9; c) presence or absence of a Negative element, usually preposed to the verb; and d) postpositional suffix (Evidative /-magi/) added to the inflected verb or to another constituent in the clause.

The inflectional suffix categories, though they are the most important formal expressions of the tense, aspect, and mood dimensions, are difficult to gloss since some of them are distributed over a number of composite categories. Each verb has six such suffixal forms, which we label somewhat conservatively as follows:

- Past₁: Evitative or Nonpast₁
- Past₂: Nonpast₂
- Past₃: Evitative

Using the same geometrical arrangement as in Table 8-1, we show in Table 8-2, below, how the six suffixal categories are distributed:

The Past₁ is identified specifically with the Past Actual Punctual Positive, but Past₂ is used for all other Past forms and is thus difficult to gloss. In the Nonpast system, Nonpast₁ is used anomalously as both Future Punctual Positive and Present Negative, a clearly disjunctive pair; Nonpast₂ is used more reasonably as Present Positive and Future Continuous Positive; Nonpast₃ is basically Future Negative but is occasionally used in place of Evidative (provided that Evidative postposition /-magi/ is present to mark the mood value).

By themselves, of course, the six suffixal categories do not suffice to differentiate the twelve composite categories of Table 8-1. The second morphological system at work is the pronominal prefix system. Each intransitive prefix category like lSg, and each transitive (complex) prefix category like lSg→lSg, has two distinct forms which we refer to as the A and B series, indicated by subscripts a and b as in lSg₁, lSg₂, and lSg₁→lSg₂.

The A and B series are distributed across the composite verbal categories of Table 8-1 as shown in Table 8-3 (following page). Note that the A vs. B opposition cross-cuts the suffixal oppositions of Table 8-2, so that by superimposing Tables 8-2 and 8-3 we can make most of the differentiations shown in Table 8-1.

### Table 8-2

<table>
<thead>
<tr>
<th>(Punctual)</th>
<th>Present</th>
<th>Future</th>
<th>Evitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past₁</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Past₂</td>
<td>Nonpast₁</td>
<td>Nonpast₂</td>
<td>Nonpast₃</td>
</tr>
<tr>
<td>Past₃</td>
<td>Evitative</td>
<td>Nonpast₂</td>
<td>Nonpast₃</td>
</tr>
</tbody>
</table>

### Table 8-3

<table>
<thead>
<tr>
<th>Distribution of A and B Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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</tbody>
</table>

In the Past system, we could take B as being a general irrealis series, used both in Potential and Negative forms. In the Nonpast system, there are shades of a parallel distribution, with B found in Present Negative and in Future Positive (vs. A in Present Positive). However, the symmetry is disrupted by the occurrence of A in the Future Negative and in the Evidative, which would normally fall under a generalised irrealis category. The only way to make any synchronic structural sense of the A vs. B opposition in the Nonpast system would be to argue that since Future Negative is clearly marked by other means (/yagi/ Negative particle, and Nonpast₂ suffix), and since Evidative forms are clearly marked by other means (usually /-magi/ postposition, and usually Evidative suffix, certainly one of the two), the A vs. B opposition in the prefixes is simply suspended with the unmarked (elsewhere realis) A category being used. However, the A vs. B opposition serves a useful purpose in the morphology, regardless of whether we think of it as semantically reasonable.

Verbs are negated by the following Negative words (one a particle, the other itself analysable as a predicative NAdj):

- /yagi/ 
- Evitative

The Future Negative is doubly distinguished formally from the Present Negative (by suffixal category and by A vs. B prefix) even before the opposition in Negative words between /yagi/ and /-magi/, hence /yagi n₃an₃g₅b₅ura₃-q/ 'I will not put it[ANAwu] down' vs. /wa:='Ei n₃an₃g₅b₅ura₃-q/ 'I do not put it down'. However, the opposition between /yagi/ and /-magi/ is significant in that it distinguishes Past Actual Negative, e.g., /wa:='Ei n₃an₃g₅b₅ura₃-q/ 'I did not put it down' from Past Potential Negative, e.g., /yagi n₃an₃g₅b₅ura₃-q/ 'I would not have put it down' in both situations the verb itself has B prefix and Past₂ suffix. The difference between /yagi/ and /-magi/ is also important when the two Negative words are used by themselves (with omission of an implied verb).

The fact that, aside from the Negative word itself, the verb in a Negative category is often formally different from the corresponding Positive verb form, is functionally useful even though it might seem to be redundant. This is because the changes in the verb (e.g., from A to B prefix in Past and Present) index that verb as

### Table 8-3

<table>
<thead>
<tr>
<th>Distribution of A and B Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

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338 §8.2 Table 8-2
339
being under the scope of the negative element; such indexing is helpful since a Negative word may have a scope of two or more clauses, and in general because of indeterminacies in surface clause boundaries. On negation see §§15.6.

In addition to the inflectional suffixes, the A and B series of pronominal prefixes, and the (usually preposed) Negative words, we must mention the Evitative postposition /-magi/, attached either to a verb or to some (preceding) constituent in the clause. Usually an Evitative form is doubly marked, both by the Evitative inflectional suffix ending in /-ngun/ or /-ngan/ and by this Evitative postposition. However, occasionally the Nonpast3 form is used in evitative sense (Table 8-2), in which case the postposition /-magi/ must be used to mark the form as Evitative; there are also some attestations of verbs with Evitative inflectional suffix where the redundant postposition /-magi/ is not added.

8.3 Aspect.

The categories Punctual and Continuous, in essence, describe intrinsic aspectual properties of the event or situation described, rather than being perspective-influenced categories like "perfective" and "imperfective" as in many European languages. Punctual is used for events which either occurred suddenly ('He died', 'He hit her'), or are represented as processes which took place over a relatively brief time span. Continuous applies to prolonged or repeated events/situations.

In positive contexts (except in Past Potential and Present, where it is neutralised), both Punctual and Continuous are quite common and there is little evidence that one is semantically more marked than the other. Verbs such as 'to go' and 'to eat' which refer to events which in other languages are typically categorised now as punctual, now as continuous, show some fluidity in aspectual preferences in Nunggubuyu. English He ate it suggests a very brief trajectory.

The texts often have series of repeated Punctual verb forms to describe situations in which a prolonged event is broken up into segments. One characteristic of narratives is the occurrence of certain motion verbs, notably /=jarara-/ and /=ya~ba-/ in such Punctual series, referring to stop-and-go motion as when an actor; among numerous textual exx. cf. /=ya~ba-/ in 15.2.1 and /=jarara-/ in 40.12.4 and 40.12.7. This pattern is also possible with /=madhara-/ 'to paddle' (canoe) as in 14.17.2. Other exx. include /=madhara-/ 'to chop' A3.4.2 and /=a~jarara=ngu-/ 'to look' 15.10.3. Of course, such Punctual series are more or less interchangeable with Continuous verbs, especially reduplicated forms of the latter, which emphasise repetition and/or prolongation.

Particularly with reference to motion verbs and others which describe processes with at least some intrinsically durative status, a Punctual verb form may have inceptive nuances. In this event, the Punctual verb may be immediately followed by a cognate Continuous form (with or without reduplication), as in 16.2.3-4 where the context is this: '[The fish were too small at place A, so] again he moved[Punctual] to there, to place B, he paddled[Punctual], he kept paddling[Continuous, reduplicated]...' The first, Punctual 'paddle' verb focuses on the transition between (static) fishing and paddling away toward another location; the second, Continuous 'paddle' verb emphasises the extent of paddling which was necessary to reach the new location. Such contiguous aspect pairs are rather common. (See Chapter 17 on such narrative patterns.)

This inceptive nuance of the Punctual (with verbs which would normally be Continuous by virtue of their intrinsic semantics) is perhaps also responsible for the use of Punctual verbs to describe some mental and emotional states. For example, 'He is angry' is normally translated as /=ni~yal~igh=a-n Y /, literally 'He became angry[Punctual]', while Present /=ni~yal~ighi-n Y / 'He becomes angry' would probably have habitual meaning. Similarly, /=wa~jar~igha=/ 'to pity, feel sorry for' occurs in Punctual /=nma=warngayu-n Y / 'I pity you' (lit., 'I pitied you') 17.12.5. Likewise, English 'I refuse (your request)' is Nunggubuyu /=nga=warngayu-n Y / 'I refused' A7.10.2. This pattern applies, of course, only to true verb forms and not to predicative NAdj like /=nma=warngayu=n Y / 'I am sad', which lack inflectional suffixes and thus lack aspect marking.

8.4 Verb reduplication.

Reduplication of verbs is by phonological rule P-2 (§3.3), which specifies the form of the -Rdp- morpheme. In its underlying form, -Rdp- is usually /-C1V 1C 2 V 2 -/ except that it is just /-C1V 1-/-- before a stop. The -Rdp- morpheme regularly disregards the pronominal prefix which begins the verb form, and applies to the remaining stem (including compound initials and derivational prefixes if present). Further formal details and irregularities are dealt with in the section just cross-referenced.

In its primary use as a productive marker of repetition and/or prolongation, -Rdp- is incompatible with Punctual inflections. Almost any page of the narrative text in Nunggubuyu contains exx. of reduplicated Past Continuous Positive verbs, and reduplicated Present Positive verbs are also very common, an ex. being 11.12.4 /=ni~ja~janda=nma=ma-n Y / 'Crow[s] have black on their backs' (-Rdp- is /-ja-/) Reduplication is also possible with Future Continuous Positive, though not terribly frequent, exx. being 7.16.3 ('hitt'), 7.17.2/3 ('go, go out'), 7.18.4/5 (several), and others in the same text, also 20.18.5 ('sit').

Reduplication in this productive sense is possible, though not very common, with Negative verb forms (as an aspect is never marked). Reduplicated Past Actual Negative forms occur in 113.3.1 and 113.5.4, the first of these being /=wa=ni=na=ma=na~ja~jar~anda-n Y / 'We did not (formerly) disperse'. The combination of Negative with -Rdp- indicates a potential event which could have occurred at a large number of times regularly failed to occur; a translation with 'never' is also possible in some contexts. I cannot cite textual
is any compounding morpheme with a dictionary under their surface variants. With form, this is most common with verbs like \=/wara-/ 'to become which are associated with (usually or always reduplicated) NAdj, in this case /-wara-waru-j/ 'crooked, bent' (becomes /bara-waru-j/ with no compound initial preceding it). For these verbs, -Rdp- is usual in all forms (and aspects), hence /ni-barawara-ra-n/ 'He moved crookedly[Punctual]', and/or /ni=bara=waruga-n/ 40.3.1 'They led her in zigzag motion[Punctual]' (by contrast, in the cases of 'to sing; to call [name]' and the Reciprocals of 'to pick up' and 'to see', mentioned above, there seems to be a residual association between -Rdp- and the productive reduplicative senses of repetition and prolongation.)

A remaining unexplained reduplicated Past Punctual is in 13.16.2 ('tangled'), with an uncommon verb root whose properties are as yet unknown.

In Nunggubuyu narrative, reduplication (by -Rdp-) may have specific discourse functions. To begin with, recall from §8.3 that an event such as 'He paddled [from place A to place B]' may be described in Nunggubuyu by a Past Punctual verb (with inceptive sense), then by a cognate Past Continuous verb, often reduplicated (describing the entire trajectory). It is common for reduplicated Past Continuous verb forms, often repeated several times and pronounced with a special high-pitched intonation, to serve as backdrop for a subsequent clause introducing a new (often Punctual) event. (This does not mean that the reduplicated verbs function like imperfectives in European languages; the new event may well have followed rather than co-occurred with the trajectory or process described by the reduplicated verb.)

There are many variations in the discourse status of reduplications, and I can only give a small selection of a complete text here, such as text 20 in NMET or the text analysed in Chapter 17, to see how they work.

Morphological reduplication, of course, is formally distinct from repetition of complete word forms. This also, however, is rather common in Nunggubuyu. We mentioned in §8.3 that some verbs occur in reduplicated forms with a compound initial or derivational prefix, and/or Punctual aspect. When the -Rdp- morpheme is present, we refer to the -Rdp- type as internal reduplication. It is also possible to have double reduplication with both -Rdp- and -Rdp2- separated by -Cpd-, as in /Pronominal-Rdp=Cpd=Verb-Suffix/. One verb highly subject to internal reduplication is /=maya-/- to call [name]. With Multiple derivational forms, there is a high-frequency reduplication /=maya=maya/ instead of regular (/Rdp2-*/), */=mara?=mara/.

The verbs /=ma/- 'to pick up, get, take' and /=ma/- to see appear to permit internal reduplications only in their Reciprocal forms /=ma-nj=-/ and /=ma-nj=-/. Thus /nuraj=/-liga-man/=ma-nj=ja-naj=ja-/ from /nuraj=aja=liga=Rdp2=ma=nj=ja-nj=ja/. With Benefactive /=a=mg/= and compound initial /=yiga/= 'fire' 166.17.1. Likewise, double reduplication is seen in /argu-giga=liga-man/=ma-nj=ja-/ 'fires will get [meet] each other' 97.4.2; in view of this it is possible that /wari-man=ja-nj=ja-/ 'they got [gathered] each other' 16.16.4/5 has -Rdp2-, though here there is no way of excluding -Rdp-.

It seems that /=alagi=-/ to get up (Reflexive in form) may (uncommonly) show Internal -Rdp2- pl. To judge by the single ex. /ni-mabu=ma-lalagi-n/- 'carcass rose up [to surface]' 34.7.2; it may be that this -Rdp2- is associated with this particular compound initial /=mabu=ma=/ 'decomposed carcass'.

The ex. just cited is also notable in that it has Past Punctual form. This is most common with verbs like /=mara=/ 'to become bent, crooked' and its transitive counterpart /=maruga-/(in Pictographs under their surface variants /=maraga-/ which are associated with (usually or always reduplicated) NAdj, in this case /=mara-waru-j/ 'crooked, bent' becomes /bara-waru-j/ with no compound initial preceding it). For these verbs, -Rdp2-
Using the Punctual form, these 'come' imperatives with 2nd person pronominal prefix (B series, as required in Future Punctive) are: /ba:='gi-n Y/, /nimbinga:='ni-n Y/, /nimbinma:='ni-n Y/, and /yagi/nimbinga:='ni-n Y/ or less often /-wagi-n Y/. See dictionary s.v. /-yagi/ for textual citations. The dual forms are phonologically irregular, since /nimbinma:='ni-n Y/ should regularly give /nimbinma:='ni-n Y/, etc., with /-a/-/1/-/2/ or /-a/-, by VV-Contraction F=9, cf. /nimbinma:='ni-n Y/ /jump/[MDu] with verb /=abi-/. This phonological irregularity highlights the rather frozen status of these 'come' imperatives.

With the exception of 'come', no verb formally distinguishes its Imperatives from ordinary Future forms. Therefore, such elements are generally considered 'universals' of language, such as the notion that all languages have an imperative favouring or requiring 2nd person intransitive subject, are inscrutable here.

Although many 2nd person Future verb forms in the texts can be appropriately translated with English imperatives (and let inclusive Future forms are often translated with 'let's...', i.e., ashortative), there are also a number of 2nd person forms in the texts which cannot be translated in such a way. From MN 2.4.1. ('let them [your legs] go together', i.e., 'put your legs together!'), 40.9.4 ('may your daughters go that way'), 162.6.1.2 (may it [car] stand', i.e., 'stop it!'), and with Negation 171.1.3 ('may he not pass by!', i.e., 'Don't let him pass by!')

We should also mention that there is often no formal difference between clauses glossed as imperatives and those glossed as suggestions. Thus a form like /ba:='gi:-da-nu:-'/ 'that[Imm, ANA]' in its function as 'should have...' 'could have...'. It is also used in both clauses of a counterfactual conditional.

In the sense 'was going to...', or 'was just about to...', the Past Potential verb may take Purpose case suffix /-mun-guyu/ forming a Purposive subordinate clause. Textual exx. are 10.16.1 ('Jabiru was about to jump on him'), 11.7.1, 12.7.2, 13.6.2, and from Hughes' texts TNT 15 and 32 and M&J 22. The Past Potential without /-mun-guyu/ has the same type of sense in a number of other textual exx.; 7.13.2 (Brolga was about to strike Emu).

161.9.3 ('I was trying to break it [but failed]'), and 161.14.2 ('[in our early plans] the mission was going to be there'); see §16.5. The sense 'was just about to...', implying apparent imminence of an event (which did not necessarily take place), is made explicit by adding particle /yagi/ as in 7.13.2; cf. §12.7.

There is no lexical verb meaning 'to try, attempt to...'. In 161.9.3, cited above, the sense 'I was trying to break it' is expressed by the Past Potential form of 'I break it' with the sense clarified by the NAD /har/hag/, here translated 'nearly' or 'on the verge of'; the next clause is 'I failed [to break it]' making it clear that the attempt was unsuccessful. See also §16.9.

The sense 'in order to...' in a past tense context is normally expressed in Nungubuyu not by a Past Potential verb, but by a Past Actual form (Positive or Negative) with /-mun-guyu/, see §16.5.

The sense 'should have...' is exemplified by this passage from TNT 27: /yagi-maga: bambah:'=bi-ni, bambah='=maru:-'/ (my retranscription) 'You should not have hit them, you should have left them [alone]. The verbs here are /maru/- 'hit' and /'maru:-'/ 'left', both with Past suffix and with B series pronominal prefix; note also that the Negative word is /yagi/, used in Past Potential but not Past Actual to mark negation. The scope of /yagi/ here is limited to the first of the two verbs.

Past counterfactual constructions (cf. 'had I seen him, I would have killed him') in English are expressed by juxtaposing two Nungubuyu clauses, both in Past Potential form. Postposition /-maga/-, which we just saw in the preceding paragraph with the 'should have' sense of Past Potential, is also common in the counterfactual particle construction—it may be added to the protasis (if clause), the apodosis ('then' clause), or both. The exx. in MNMT are 120.6.1.3 ("if it had gotten into they would have been unable to see permanently') and 161.33.2 ("if they had done that [helped them]"). There is no lexical verb meaning 'to try, attempt to...'. In 161.9.3, cited above, the sense 'I was trying to break it' is expressed by the Past Potential form of 'I break it' with the sense clarified by the NAD /har/hag/, here translated 'nearly' or 'on the verge of'; the next clause is 'I failed [to break it]' making it clear that the attempt was unsuccessful. See also §16.9.

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Because such predicative NAdj lack the verbal inflectional suffixes, the Past Potential form is identical to the Future form, hence /an/yagun=gal/ 'It[ANA] would have been big' or 'It will be big'. The textual exx. which we can confidently analyze as Past Potential are 12.6.3 /an/ti=bagawaga-lu:-/ 'She was about to be facing [him]', and 120.6.2 /anburu=altogether anburu=yagun=gal-maga:/ 'They would have been for good [unable to see, specified in juxtaposed clause].

§8.7 Evitative.

The term "Evitative" was coined from Latin evitare 'to avoid' and has been used in several of my grammars. A clause containing an Evitative verb can be translated with 'lest...;', or more colloquially with 'or else...' in the threatening or warning sense. An Evitative form usually co-occurs with an imperative or suggestion which indicates a precaution which may be taken to avoid the undesirable potential event described by the Evitative itself, as in 'Get inside, lest you be caught in the rain'.

This category is normally expressed doubly, by the Evitative inflectional suffix on the verb (ending in /-un/ or /-ngun/ depending on verb class), and by Evitative postposition /-magi/. The /-magi/ is added to the verb form most of the time, but may be attached to a preceding constituent in the same clause, and in the Evitative Negative /-magi/ is added directly to Negative particle /yagi/.

Occasionally, /-magi/ is omitted so that the Evitative inflectional suffix carries the modal meaning. On the other hand, occasionally the Nonpast3 (usually Future Negative) inflectional form is used with /-magi/ to mark the Evitative.

Although the Evitative is fairly common in everyday conversation, e.g., in warnings from adults to children, it is not especially common in the published texts (mostly narrative). We can cite the following cases from NMET involving the double marking: 'lest I bring down the sky' 5.17.2 and 7.14.3/4; 'lest I do thus' 7.14.5; 'lest I call out to it' 7.14.5; 'lest I destroy them' 7.14.6; 'lest I get away from us' 13.12.3, 13.13.5, 13.25.2; 'lest they pursue me' 40.14.2; and 'lest he rebuke me' 163.17.5. In 171.1.3-4 we have a case where /-magi/ is added to a proposed demonstrative rather than to the verb, the sense being 'lest this[tape recorder] get[record] his voice'. An Evitative inflectional ending with no trace of /-magi/ is found in 94.2.3/4 'lest it burn[out of control]'.

Evitatives in Hughes' texts can be found in TNT 15 and 16.

The Evitative form in Nunggubuyu has approximate parallels in many other Australian languages, but the counterpart in some of these languages is a much more general and more common form expressing an undesirable potential event. In Nunggubuyu, the Evitative is used for an undesirable potential event which can be avoided by prudent action, and is thus generally juxtaposed to another clause containing an imperative or suggestion.

Chapter 9

Pronominal prefixes with verbs

§9.1 General.

The term pronoun prefix designates a class of prefixes (many of which can be decomposed into two or more component morphemes in a phonologically abstract analysis) which are used with verbs, and with NAdj (adjectival nouns, §4.2) when they are in predicative form.

The pronoun prefix may be intransitive (marking pronoun subject only), or transitive (marking subject and object). For simple transitives like 'to see' and 'to hit', the object marked in the pronoun prefix is the direct object (patient). However, if a transitive pronoun prefix is followed by Benefactive derivational prefix /-aG-/, the object marked in the pronoun prefix is an indirect object. For a few verbs like 'to give', where an indirect object is part of the minimal case frame, the object marked in the prefix is always the indirect object and Benefactive /-aG-/ is not used.

Pronoun prefixes are formally distinct from all other prefix classes in the language. There are some formal resemblances between the intransitive pronoun prefixes and some NC (noun class) prefix series (see Table 4-1, Chapter 4), but the correspondences are far from exact. For example, it is easy to tell when a NAdj like /gur=gal/ 'big' is in nominal surface status and when it is in predicative form with intransitive pronoun prefix; /ana-gur=gal/ 'the big one[ANA]', /we=gur=gal/ 'it[ANA] is big'. Transitive pronoun prefixes have no parallels whatever elsewhere in the language.

Depending on whether we are concerned with the pronoun element as a whole or with its internal structure, we will speak of it as a prefix (singular!) or as a sequence of component morphemes.

The following pages contain elaborate tables showing all intransitive (Table 9-1) and transitive (Tables 9-2 to 9-15) prefixes. Readers interested only in identifying prefixes in textual passages may wish to use these tables but to skip the formal analysis implied by the "underlying" representations in double slashes //...// in the tables, and discussed in the rest of this chapter.
### TABLE 9-1

<table>
<thead>
<tr>
<th>Intransitive Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg_a: ni:ni-</td>
</tr>
<tr>
<td>1Sg_b: n^an-</td>
</tr>
<tr>
<td>1ExMDu_a: nini-</td>
</tr>
<tr>
<td>1ExMDu_b: nani-</td>
</tr>
<tr>
<td>1ExFDu_a: niri^1-</td>
</tr>
<tr>
<td>1ExFDu_b: namir^1-</td>
</tr>
<tr>
<td>1ExPl_a: nuru-</td>
</tr>
<tr>
<td>1ExPl_b: nambu-</td>
</tr>
<tr>
<td>1InDu_a: na-</td>
</tr>
<tr>
<td>1InDu_b: man-</td>
</tr>
<tr>
<td>1InTr_a: g^aini-</td>
</tr>
<tr>
<td>1InTr_b: n^ani-</td>
</tr>
<tr>
<td>1InPl_a: n^aniu-</td>
</tr>
<tr>
<td>1InPl_b: n^anuru-</td>
</tr>
</tbody>
</table>

Note: Except for ANa and MANa forms, these prefixes are also used for transitive \( \rightarrow \) ANAg, cf. Table 9-3.

#### §9.1 Table 9-1

### TABLE 9-2

1\( \rightarrow \)2 and 2\( \rightarrow \)1 Prefixes

| 1\( \rightarrow \)2Sg_a: ni:ruuu- |
| 2Sg_a: n^aru-          |
| 1\( \rightarrow \)2Sg_b: (w)a- |
| 2Sg_b: n^anu-          |
| 1\( \rightarrow \)2Pl_a: ni:ambi- |
| 2Pl_a: n^ambi-         |
| 1\( \rightarrow \)2Pl_b: n^ambambi- |
| 2Pl_b: n^ambambi-      |

Note: "1" subsumes 1Sg, 1ExDu, and 1ExPl (1st inclusive cannot co-occur with 2nd person). Several of the forms shown are opaque or ambiguous in structure; see discussion.

### TABLE 9-3

1Sg Object Prefixes

<table>
<thead>
<tr>
<th>[inverse]</th>
<th>JMSg/NA( \rightarrow )1Sga ngani-</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JMSg/NA( \rightarrow )1Sgb ngambani-</td>
</tr>
<tr>
<td></td>
<td>JFSg/NgA( \rightarrow )1Sga ngangi-</td>
</tr>
<tr>
<td></td>
<td>JFSg/NgA( \rightarrow )1Sgb ngambangi-</td>
</tr>
<tr>
<td></td>
<td>3Pl/WA( \rightarrow )1Sga ngambi-</td>
</tr>
<tr>
<td></td>
<td>3Pl/WA( \rightarrow )1Sgb ngambambi-</td>
</tr>
<tr>
<td></td>
<td>ANAg nganggu-</td>
</tr>
<tr>
<td></td>
<td>ANAg ngambanggu-</td>
</tr>
<tr>
<td></td>
<td>MANAg ma-</td>
</tr>
<tr>
<td></td>
<td>MANAg mambgu-</td>
</tr>
</tbody>
</table>

The tables also show, to the right, textual citations for the prefix forms, preferably from NMET but sometimes from Hughes' volumes (TNT, MT). Usually just one citation is given, but for a few irregular prefixes we give more than one, and in some cases where the prefix has a range of pronominal possibilities (due to idiosyncratic categorial mergers) we may give one attestation of each major function. In Table 9-1, for example, we try to show exx. both of the intransitive function and of the transitive function with ANAg object.

Although we point out textual citations where available, the paradigms have been put together primarily by direct elicitation and observation of (unrecorded) speech. The forms have in almost all cases been rechecked and confirmed many times.

Glosses like 1Sg\( \rightarrow \)MANAg show subject to the left and object to the right of the arrow. Final subscripts a and b refer to the two series of pronominal prefixes (cf. §8.2 and Table 8-3).
The forms of pronominal prefixes shown in the tables (9-1 to 9-15) are what we might call the basic forms. The forms shown are always possible, and in most cases obligatory, when the following morpheme begins with a consonant. However, if that morpheme begins with a vowel, there is always a further phonological change, usually VV-Contraction P-49, but Pronominal d-Insertion P-20 in case the prefix' underlying form ends in /n/. There are also some other relevant rules, and it is useful to mention all of them to enable readers to analyse actual textual forms using our tables.

By far the most common such rule is VV-Contraction P-49, since many verbs begin in a vowel. There are also some important derivational prefixes, such as Comitative /-anYji-/ and Benefactive /-aG-/, which begin in a vowel (and may directly follow the prefix).

In NMET and this grammar, the symbol ‘ indicates the absorption of a morpheme-initial vowel by VV-Contraction P-49, as in /wa:='bi-n Y / 'it jumped' from //wlu=abi-n Y //.

P-49 has a number of specialised subrules, some applicable only in morphological contexts not relevant to the analysis of
TABLE 9-6

2Pl Object Prefixes

| 3FSg/NA → 2Pla | nani- | /w 2 an-w 2 an-ni-1// |
| 3FSg/NA → 2Plb | nambani- | /w 2 an-w 2 an-ni-1// |
| 3Pl/WARA → 2Pla | nan1- | /w 2 an-w 2 an-1// |
| 3Pl/WARA → 2Plb | namban1- | /w 2 an-w 2 an-1// |

Note: 2Pl includes 2Du.

Since there is no ' after the boundary.

In a surface form like /wa:=na-yi:/ 'They see them', the long vowel, the only remaining possibility is that RV-Trimination has applied, converting /.../ to /.../ at the end of the pronominal prefix. Ordinarily this can only apply before a consonant (across the boundary), so confusion with P-49 is not possible. In the case of /wa:=na-yi:/, then, we take the prefix as /'-/, it is either from /=u-// (a form of /=w 2 u-/ 'to hit, kill') or from /=i-// or /=u-// (forms of /=yi-/ 'to give'). Note that '= is used for the boundary just before the verb root. In a surface form like /wa:=na-yi:/, 'They see them', the long vowel is not due to P-49 since there is no ' after the boundary.

Since there are no pronominal prefixes whose basic form ends in a long vowel, the only remaining possibility is that RV-Trimination has applied, converting /.../ to /.../ at the end of the pronominal prefix. Ordinarily this can only apply before a consonant (across the boundary), so confusion with P-49 is not possible. In the case of /wa:=na-yi:/, then, we take the prefix as /'-/, optionally truncated to /'/'.
In rapid speech, phonologically irregular contractions involving a pronominal prefix whose basic form ends in /ñ/ and a following morpheme beginning in a vowel may occur. Thus /'wara=dati-n/' 'They [or It WARA class] went up on shore' is sometimes heard as /'wa=dati-n/' /wa:/ from /wara-/ may be in the process of extending their distribution and becoming context-independent (not just preconsonantal) variants of the prefixes.

While virtually all pronominal prefixes end in a vowel (in their basic forms), there are three prefixes of the form /n/-. 

Note that there is no surface difference in the final pair.

Note: 3Pl (as object category) here subsumes 3Du. For WARA=WARA, it is possible to substitute /ñ/ prefix as with other transitive nonhuman prefixes.

<table>
<thead>
<tr>
<th>1Pl→3Pl/WARA</th>
<th>3Pl/WARA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Pl→3Pl/WARA</td>
<td>3Pl/WARA</td>
</tr>
<tr>
<td>2Sg→3Pl/WARA</td>
<td>3Pl/WARA</td>
</tr>
<tr>
<td>2Sg→3Pl/WARA</td>
<td>3Pl/WARA</td>
</tr>
<tr>
<td>2Pl→3Pl/WARA</td>
<td>3Pl/WARA</td>
</tr>
<tr>
<td>2Pl→3Pl/WARA</td>
<td>3Pl/WARA</td>
</tr>
</tbody>
</table>

| Note: 3Pl (as object category) here subsumes 3Du. For WARA=WARA, it is possible to substitute /ñ/ prefix as with other transitive nonhuman prefixes. |

### Table 9-10

<table>
<thead>
<tr>
<th>Prefixes</th>
<th>Object Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA→3MSg/NAg</td>
<td>3MSg/NAg</td>
</tr>
<tr>
<td>ANA→3MSg/NAg</td>
<td>(w)anɪ̞nɪ̞nu-</td>
</tr>
<tr>
<td>MANA→3MSg/NAg</td>
<td>nɪ̞na-</td>
</tr>
<tr>
<td>MANA→3MSg/NAg</td>
<td>(w)anɪ̞na-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[Inverse]</th>
<th>3MSg/NAg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA→3MSg/NAg</td>
<td>3MSg/NAg</td>
</tr>
<tr>
<td>ANA→3MSg/NAg</td>
<td>(w)anɪ̞nɪ̞nu-</td>
</tr>
<tr>
<td>MANA→3MSg/NAg</td>
<td>nɪ̞na-</td>
</tr>
<tr>
<td>MANA→3MSg/NAg</td>
<td>(w)anɪ̞na-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[Equipollent]</th>
<th>3MSg/NAg</th>
</tr>
</thead>
<tbody>
<tr>
<td>3MSg/NAg→2MSg</td>
<td>nu-</td>
</tr>
<tr>
<td>(w)anɪ̞nu-</td>
<td>nu-</td>
</tr>
<tr>
<td>3MSg/NAg→2MSg</td>
<td>/wuru-</td>
</tr>
<tr>
<td>(w)anɪ̞nu-</td>
<td>/wuru-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[Direct]</th>
<th>3MSg/NAg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg→3MSg</td>
<td>nu-</td>
</tr>
<tr>
<td>1Sg→3MSg</td>
<td>/wuru-</td>
</tr>
<tr>
<td>1ExFDu→3MSg</td>
<td>mu-</td>
</tr>
<tr>
<td>1ExFDu→3MSg</td>
<td>/wuru-</td>
</tr>
<tr>
<td>1ExFDu→3MSg</td>
<td>mu-</td>
</tr>
<tr>
<td>1ExFDu→3MSg</td>
<td>/wuru-</td>
</tr>
<tr>
<td>2Sg→3MSg</td>
<td>nu-</td>
</tr>
<tr>
<td>2Sg→3MSg</td>
<td>/wuru-</td>
</tr>
<tr>
<td>2Sg→3MSg</td>
<td>mu-</td>
</tr>
<tr>
<td>2Sg→3MSg</td>
<td>/wuru-</td>
</tr>
</tbody>
</table>

Note: 1ExFDu subsumes 1ExMDu, 1InFDu subsumes 1InMDu, 2Sg→3MSg subsumes 2MDu, and 3Pl→3MSg subsumes 3Du in this paradigm.

Table 9-10

<table>
<thead>
<tr>
<th>3MSg Object Prefixes</th>
<th>3MSg/NAg</th>
</tr>
</thead>
<tbody>
<tr>
<td>3MSg/NAg</td>
<td>nu-</td>
</tr>
<tr>
<td>(w)anɪ̞nu-</td>
<td>nu-</td>
</tr>
<tr>
<td>3MSg/NAg</td>
<td>/wuru-</td>
</tr>
<tr>
<td>(w)anɪ̞nu-</td>
<td>/wuru-</td>
</tr>
</tbody>
</table>

Note: In rapid speech, phonologically irregular contractions involving a pronominal prefix whose basic form ends in /ñ/ and a following morpheme beginning in a vowel may occur. Thus /'wara=dati-n/' 'They [or It WARA class] went up on shore' is sometimes heard as /'wa=dati-n/' /wa:/ from /wara-/ may be in the process of extending their distribution and becoming context-independent (not just preconsonantal) variants of the prefixes.

While virtually all pronominal prefixes end in a vowel (in their basic forms), there are three prefixes of the form /n/-. 

Note that there is no surface difference in the final pair.

Note: 3Pl (as object category) here subsumes 3Du. For WARA=WARA, it is possible to substitute /ñ/ prefix as with other transitive nonhuman prefixes.
TABLE 9-11
NA Object Prefixes

[inverse]

ANA→NA
ANA→NA
MANA→NA
MANA→NA

[equipollent]

3MSg/NA→NA
3MSg/NA→NA
3FSg/3MSg/NA→NA
3FSg/3FSg/NA→NA

[direct]

1Sg→NA
1Sg→NA
1ExFDu→NA
1ExFDu→NA
1ExPl→NA
1ExPl→NA
1InDu→NA
1InDu→NA
1InFTr→NA
1InFTr→NA
2Sg→NA
2Sg→NA
2Pl→NA
2Pl→NA
3FDu→NA
3FDu→NA
3Pl/WARA→NA
3Pl/WARA→NA

Notes: For WARA→NA, the nonhuman→nonhuman prefix /~/ is also possible, 1ExF1 subsumes 1MDu, 1InFTr subsumes 1InTr, 2F1 subsumes 2MDu, and 3F1 subsumes 3MDu in this paradigm.

TABLE 9-12
3FSg/3MSg Object Prefixes

[inverse]

ANA→3FSg/3MSgANA
ANA→3FSg/3MSgANA
MANA→3FSg/3MSgANA
MANA→3FSg/3MSgANA

[equipollent]

3FSg/3MSg/NA→NA
3FSg/3FSg/NA→NA

[direct]

1Sg→3FSg/3MSgANA
1Sg→3FSg/3MSgANA
1ExFDu→3FSg/3MSgANA
1ExFDu→3FSg/3MSgANA
1ExPl→3FSg/3MSgANA
1ExPl→3FSg/3MSgANA
1InDu→3FSg/3MSgANA
1InDu→3FSg/3MSgANA
1InFTr→3FSg/3MSgANA
1InFTr→3FSg/3MSgANA
2Sg→3FSg/3MSgANA
2Sg→3FSg/3MSgANA
2Pl→3FSg/3MSgANA
2Pl→3FSg/3MSgANA
3FDu→3FSg/3MSgANA
3FDu→3FSg/3MSgANA
3Pl/WARA→3FSg/3MSgANA
3Pl/WARA→3FSg/3MSgANA

Notes: For nonhuman subject on 3MSg object, the nonhuman→nonhuman prefix /~/ is also possible, 1ExF1, and the Du of other persons, is included in the corresponding Pl for subject categories in this paradigm.

TABLE 9-13
ANA$^g$ Object Prefixes

[inverse]

ANA/MANA→ANA$^g$ab

[equipollent]

ANA/MANA→ANA$^g$ab

[direct]

(1ExF1→$^g$ab)

Notes: For corresponding intransitive prefixes, Table 9-1, except for option of using /~/ for nonhuman→nonhuman; see textual citations in Table 9-1 marked "ANA$^g$" at far right.)
### TABLE 9-14

<table>
<thead>
<tr>
<th>ANA\wu Object Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA/MANA \→ ANA\wu-ab</td>
</tr>
<tr>
<td>\g/-</td>
</tr>
<tr>
<td>\g/- /5.11.4, 35.12.3, 93.3.5</td>
</tr>
<tr>
<td>(also MT 16, 21)</td>
</tr>
</tbody>
</table>

Note: As with other nonhuman \→ nonhuman combinations, there is the option of using \g/- with NA, N\wA\bA, or WARA subject.

### TABLE 9-15

<table>
<thead>
<tr>
<th>MANA Object Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA/MANA \→ MANAab</td>
</tr>
<tr>
<td>\g/-</td>
</tr>
<tr>
<td>\g/- /162.22.3</td>
</tr>
</tbody>
</table>

Note: For nonhuman \→ nonhuman, prefix \g/- is also possible.
9.3 Formal internal analysis of pronominal prefixes.

It is possible to analyse the pronominal prefixes using the "underlying" representations suggested within double slashes //...// in the tables. Such an analysis requires considerable abstractness, and presupposes a large number of rules, both phonological and morphological, linking the various prefixes together into a total system. Such an analysis will be attempted here, and a reasonably elegant result can be obtained. However, I make no strong claims about the psychological reality of this analysis.

First, we will examine the intransitive prefixes (Table 9-1) to identify the full form of each PM (pronominal marker), some of which may contain more than one component morpheme. Analysis of the transitive (two-place) pronominal prefixes will begin with the working assumption that each of them can be analysed as a combination of a subject PM and an object PM related to the simple intransitive forms. However, we will be on the lookout for allomorphic variations, categorial neutralisations, morpheme deletions, reorderings, and insertion of relational morphemes. If we cannot derive a particular transitive pronominal prefix from two PMs plus these operations, we recognise an unanalysable portmanteau morpheme.

In other words, we basically take the intransitive forms as starting points and try to generate the transitive forms from them. The situation is complicated by the fact that both intransitive and transitive pronominal prefixes occur in A and B series, and it is also necessary to analyse the morphemes used to make these series distinctions.

In the intransitive forms, the A and B forms show at first sight a range of phonological relationships:

1St b /ba-/, 2Sg a /bani-/ vs. 2Sg b /bani-/
1Sg a /wana-/ vs. 1Sg b /wana-/
2MDu a /nimba-/ vs. 2MDu b /nimba-
MANA a /ma-/ vs. MANA b /ma-/

However, all four of these pairs can be accounted for by positing a B series morpheme //w-an-// added to the A form, as long as we are careful to put the B morpheme in the correct position: at the end in MANA a, at the beginning in MANA b, and in the middle in MANA b. Fortunately, further analysis of the overall system supports recognition of a number of component morphemes each with a particular left-to-right "slot," and //w-an-// fits nicely into this analysis. 1St/2nd person markers are lefmost, followed by //w-an-/, while number and gender markers as well as 3rd person NG markers are rightmost. 1EMDu a /ma:n/-/ is analysable as //ma:w-an-n/-// with left exclusive, then B, then a masculine marker (also implying dual number), while 2MDu b /nimba-1/- is //ma:w-an-w, y-n/-// with 2nd nonsingular, B, a nonsingular morpheme, and masculine.

In this fashion we can account for all A vs. B alternations in Table 9-1, except for the obviously suppletive 2Sg a /mu:/ vs. 2Sg b /ba-/. It would seem that /mu:/ might be analysed as //mu-n-/, cf. 1Sg a /ma:n/-/ (Table 9-2), presumably //ma:n-/-/, but this segmentation is synchronically shaky and we will just write /mu:/ without morpheme boundaries.

In Table 9-16, above, we present a tentative analysis of the various PMs, based on their intransitive forms. Each component morpheme showing up in the underlying analysis is assigned a label; thus /w-an-// is MANA-/-Pl-. The plural forms of all 1st/2nd persons begin with a person marker also distinguishing singular (or dual or both types of rare inclusive) from another form of the same lexeme. Note that 1EXNonsg-, for example, is a label for a single morpheme, as is 1InNondu- and 2Nonsg-. The 2nd singular forms also involve a /w-v/- morpheme labeled -Nonsg- which is not used with 1st person forms. 1EXDu and 2Du additionally have a final gender marker (-M- or -F-), which is also used in the (optional) Tr (trial) forms for inclusive. The plural forms of all 1st/2nd categories have a morpheme /-ru-/ labeled -PI-.

In the 3rd person forms, we have some nohuman/human syncretisms: 3MDu is merged with 3MSg, MANA with 3Sg, and WARA with 3Pl. 3MDu and 3Sg have the Nonsg- morpheme (already seen with 2nd person) followed by gender-marking -M- or -F-, and 3Pl (also WARA) have the structure Nonsg-Pl-. Note that there is no 3rd person initial prefix parallel to those of 1st/2nd persons. Aside from these nonsingular 3rd person forms, the others (i.e., 3rd singular or with number unmarked) consist just of a NC morpheme (including -M-, -F-).

§9.3
The rule for positioning the B morpheme in these simple PMs is, again, just after the 1st/2nd person initial prefix if present, otherwise initially. Hence:

- 1Sg
  - lExMDub
  - 2M Dub
  - 3M Dub
  - MANA
- 1Sg
  - 2MDub
  - 2Nonag
  - 3Nonag
  - B
  - MANA

9.4 Direct, Inverse, and equipollent transitive prefixes.

Before continuing our formal analysis, it is necessary to describe some respects in which the transitive (two-place) prefixes differ from intransitive ones.

The most important is the distinction between direct, inverse, and equipollent. It is possible to establish a partial hierarchy of the following markers (PMs), corresponding in part to left-to-right "slot" positions (suggested in the schema at the top of this page), with lEx/2nd person first, 3Pl (and WARA) next, then 3MSg/NA, and finally the lowest-ranking categories MANA and MANA.

In a transitive combination, we say that the complete pronominal prefix is direct if the subject is higher-ranking than the object, inverse if the object outranks the subject, and equipollent if the two are in the same hierarchical class.

The component morphemes constituting the subject and object PMs are generally rearranged in such a way that each morpheme goes into its own "slot" (if not deleted). Thus, both in lExANA (direct) and ANA→lExANA in the subject, the lExANA morpheme must first and the ANA morpheme last. This means that the two transitive combinations are threatened with homophony. One solution is to use special subject vs. object allomorphs for the various morphemes, but while there is a little of this (notably with 3MSg/NA and 3PSg/NAARA) it is not extensive. Instead, the basic mechanism for distinguishing direct from inverse counterparts is the addition of Inverse morpheme /-N-/, to the latter. Hence:

- lExANA /n-a-N-ni-// vs. ANA→lExANA /n-a-X-u-// (with Hamming P-38 or /a/, then Nasal Assimilation P-27).
- The morpheme consists of a nasal archiphoneme which is always followed by a consonant and must assimilate in position or (before another nasal) be deleted by Nasal-Deletion P-30. It also has an ablaut effect on some preceding vowels (changing them to /a/ or /e/), of: V-Ablaut P-30, part (a).
- As we will see later, in some transitive combinations a subject PM including gender-marker /-M- or /-F- may be split up so that it sandwiches the object PM between its two separated parts (see the Gender-Hopping rule, below). In this event, even though the subject PM outranks the object PM, Inverse /-N-// occurs at the boundary between the object PM and the following /-M- or /-F- associated with the subject PM. It is as though, in becoming separated from the rest of the subject PM, the /-M- or /-F- acquires the hierarchical status of a 3MSg or 3PSg PM (which are expressed solely by /-M- and /-F- respectively, of Table 9-16), so that this detached subject PM segment is locally lower than the object PM.

9.5 Categorial neutralisations in transitive prefixes.

The neutralisations which can be gleaned from the tables are the result of a) deep, systematic neutralisations, and b) surface neutralisations due to minor morphological rules deleting or changing a given pronominal marker in some context. In this section we deal with the systematic neutralisations.

First, in each pronominal person, the maximal three-way number opposition is reduced to two in object PMs. For 1st inclusive the residual opposition is lInDu vs. lInPl (P'), while for 1st exclusive, 2nd, and 3rd persons the residual opposition is 3Sg vs. Pl (including Du).

There is no similar across-the-boards absorption of Du/Tr categories by corresponding Pl categories in subject PMs. However, such an absorption does occur in the special case where the object PM is 3PSg/NAARA (see Table 9-12).

These two neutralisations can be described formally by saying that the relevant Du/Tr categories are absorbed by corresponding Pl categories. The operation seems to involve PMs as a whole rather than being lower-level morphemic readjustments.

Du/Tr Absorption

Du/Tr PMs (except lInDu) are replaced by corresponding Pl PMs a) as object markers (with any subject), and b) as subject markers if the object is 3PSg/NAARA.

More severe neutralisations occur in 1st→2nd and 2nd→1st transitive prefixes (Table 9-2). Even after part (a) of Du/Tr Absorption, we should expect eight different 1st→2nd combinations (subject PMs lExANA and MANA (with any object PMs 2Sg and 2Pl), and similarly eight 2nd→1st combinations for a total of sixteen, each additionally having A and B variants for a total of thirty-two. In fact, Table 9-2 shows only two 1st→2nd categories (each with A and B forms) and only two 2nd→1st (with no A vs. B distinction), if we disregard phonological variants.
As can be seen by inspecting Table 9-2, all 1st person number (and gender) categories are merged in the presence of a 2nd person PM, regardless of which subject and which is object. Since Du/Tr Absorption accounts for only a limited part of this assimilation (and that only for object PMs), a special rule is needed. In addition, the 2nd person PMs in the table have only a Sg vs. (2+) Pl opposition as subject PMs (as well as object PMs).

Although the 1st-2nd and 2nd-1st prefixes are, at best, structurally opaque, by examining 1-2Sg $\rightarrow$ nun-/ and 1-2Pl $\rightarrow$ ana-/ we can tentatively say that the 1st person neutralisation is of the form $\text{1ExF} \rightarrow \text{1Sg}$, since the initial morpheme seems to be 1Sg morpheme //n$^{\text{ex}}$a// in both forms. The other morphemes are

$\begin{align*}
\text{2Sg}_a /-\text{mu-} & \quad (\text{cf.} \ 2Sg_a /\text{mun-} \text{ as an intransitive prefix}) \text{ and } 2\text{Nonsg } /-\text{na-}.
\end{align*}$

### 9.6 Portmanteaus

Portmanteaus, i.e., unanalyseable transitive pronominal prefixes, are limited to equipollent combinations—those where subject PM and object PM are in the same pronominal category or at least in the same hierarchical set (see below). Not all equipollent prefixes are portmanteaus, however.

The four types of equipollent combination are these:

$\begin{align*}
a) & \quad \text{1st-2nd and 2nd-1st Neutralisation} \\
b) & \quad \text{3Pl/WARA} \rightarrow \text{3Pl/WARA} \\
c) & \quad \text{3Sg} \rightarrow \text{3Sg} \text{ with } 3\text{Sg/NA and/or } 3\text{FSg/NGARA} \\
d) & \quad \text{ANA or MANA } \rightarrow \text{ANA or MANA}
\end{align*}$

In the case of $\text{3Pl/WARA} \rightarrow \text{3Pl/WARA}$, it is possible to account for the surface form by positing underlying subject and object PMs both of the form $\text{Nonmg-Pl}$, with various morpheme-deletion rules (see below) then applying. We do not consider these to be portmanteaus.

In type (c), representative A forms are $3\text{FSg/NGARA} \rightarrow 3\text{FSg} /-\text{umu-}$, $\text{3MSg/NA} \rightarrow 3\text{FSg/NGARA} /-\text{umu-}$, and $\text{3Sg/NGARA or 3MSg/NA} \rightarrow 3\text{FSg/NGARA} /-\text{umu-}$. The first of these has the structure $\text{F-Sg}$ (F subject, M object), while the other two consist of just the object PM, either M or F. Since it is easy to identify the morphemes, and to account for outputs by a few deletion rules, we do not consider these portmanteaus. (Vowel quality in these morphemes is dealt with below under Allomorph Assignment.)

Type (d) prefixes are of the form $/\text{-}2// /w2a// in both A and B series. Since ANA and MANA have basic nonzero PMs (Table 9-16), except that MANA has $/\text{-}2// /w2a// as object (but $/\text{-}2// /a// as subject) PM form, we must analyse the $/\text{-}2// /w2a// as a portmanteau, or as the product of a mutual-destruction deletion rule applying when subject and object PMs of these low-ranking categories come together.

I prefer to analyse it as a portmanteau, since I interpret the use of $/\text{-}2// /w2a// as reflecting competition of the subject and object PMs for the same morpheme slot. (I would prefer a mutual-destruction rule if there were any evidence at all that the two PMs occupied distinct slots.) Moreover, the $/\text{-}2// /w2a// is optionally extended to other nonhuman—nonhuman combinations, e.g., as an alternative to $3\text{Pl/WARA} \rightarrow 3\text{Pl/WARA}$ /w2a// $\rightarrow$ just in case both subject and object are (nonhuman) WARA instead of (human) Pl.

In the 1st-2nd and 2nd-1st combinations (Table 9-2), the small number of forms contributes to the lack of structural transparence (cf. the neutralisation rule discussed on the preceding page). Let us see what we can squeeze out of them.

$\begin{align*}
1 \rightarrow 2\text{Sg} /\text{-}\text{umu-} & \quad \text{and } 1 \rightarrow 2\text{PLa } /\text{nana-} \text{ seem to contain } 1\text{Sg } /-\text{na-}+ \text{ plus } 2\text{Nonsg } /-\text{na-}. \text{ The corresponding B series forms are, respectively, } (\text{wA})-a \text{ and } (\text{f}2\text{An}2\text{Aba}-). \text{ Hence } (\text{w}a)-a \text{ seems to be a special } 2\text{Sg } \text{allomorph of } \text{f}2\text{An}2\text{Aba}- \text{ (Table 9-1) and } 3\text{Nonsg } \text{object allomorph in inverse form } /-a// (\text{Table 9-7}). \text{ The alternation between } /-b//, /-w//, \text{ and } /-\text{w2a// is phonologically irregular in the absence of any conditioning segments, but elsewhere in the language } /-w// (i.e., /w\text{-}a//) \text{ becomes } /-b// \text{ after stop or nasal by Hardening } /-\text{Pl//, } \text{ and some alternations of } /w// \text{ (including } /wA// \text{ in a few cases) with zero are also found (see phonological rules } /=4// \text{ and especially } /=1// \text{ and } /=12//). \text{ The analysis of } (\text{n}2\text{A}2\text{An}2\text{Aba}-) \text{ is complicated by the variation in forms; if the initial velar nasal is present for a given speaker, we can analyse this as an extension of the corresponding A form } /\text{An}2\text{An}2\text{Aba}-\text{ (i.e., formally } 1\text{Sg}-2\text{Nonsg}-\text{, the extension itself perhaps consisting of some nasal element } /-\text{N-} /-\text{w2a//} \text{ (the latter related to } 2\text{Sg} /-\text{va-}/, /-\text{a//}, /-\text{a//} \text{— just mentioned). However, even if we can tentatively identify the component morphemes in the } /\text{An}2\text{An}2\text{Aba}-\text{ form } /-\text{w2a//} \text{ and } /\text{An}2\text{Aba}-\text{, this identification is at best fuzzy because of phonological irregularities, and } /\text{n}2\text{A}2\text{An}2\text{Aba}- \text{ in particular has a morphic composition which has no parallels elsewhere in the pronominal prefix system.}
\end{align*}$
allomorph /-ri/- being what is left of a 2Pl PM (2Nonsg-Nonsg-Pl-) following some morpheme deletions. Because of the small number of 1st→2nd and 2nd→1st forms and the difficulties we have had in analysing them, it is quite reasonable to assume that speakers just learn them as units, with perhaps a hazy idea about the internal structure of some of them. We may therefore think of them as portmanteaus or as semi-portmanteaus; i.e., as having no synchronous internal structure or as having just hints thereof.

Moving to a higher level of interpretation, we may observe that a great many languages with bound subject and object pronouns show extensive irregularities in 1st→2nd and 2nd→1st combinations, with frequent use of portmanteaus, deletion of one of the pronominals, replacement of a pronominal by an indefinite morpheme, neutralisation of one pronominal with 3rd person, unusual reshapings such as subject-object "number harmony" (Nyandí), etc. These devices may be interpreted cross-linguistically as ways of mitigating or skewing direct representations of interactions between speaker and addressee, which are highly sensitive pragmatically in all cultures. Thus, while I interpret nonhuman—nonhuman /-W/- as a portmanteau motivated by competition of two morphemes for a single slot, I interpret 1st→2nd and 2nd→1st portmanteaus and semi-portmanteaus as motivated primarily by pragmatic considerations, even though grammaticalized and thus not manipulated because of situational pragmatic nuances.

9.7 The pronominal hierarchy and morpheme ordering rules.

The hierarchical relationship between the subject and object PMs in a transitive prefix affects both morpheme ordering and the use of Inverse //-/N-//; it is also indirectly related to the usage of portmanteaus since these are limited to a subset of equipollent combinations.

Leaving out nonpronominal morphemes (Inverse, B), the component morphemes in a complex pronominal end up on the surface in the following order:

<table>
<thead>
<tr>
<th>Person marker</th>
<th>Nonsg/Pl</th>
<th>Gender marker</th>
<th>NC marker</th>
</tr>
</thead>
</table>

In this formula, "person marker" refers only to nonzero 1st and 2nd person morphemes; a pronominal prefix consisting only of 3rd person PMs has this slot vacant. Nonsg- and -Pl- refer to the morphemes /-W/- and /-V/-, respectively; cf. Table 9-16 for their distribution in basic PMs. Gender markers are -M- (also used for NA class, with some allomorphic distinctions) and -F-, and NC markers (in the present discussion) are ANA and MANA only (elsewhere we use "NC" in a broader sense).

Some of the four slots shown can actually contain two morphemes. Some 1st→2nd and 2nd→1st forms can be analyzed as having both a 1st person and 2nd person morpheme (§9.6, above); there may be two -Pl- and/or -Nonsg- morphemes; and as for gender markers, -F- may precede -M-.

If we associate this left-to-right slot arrangement with the hierarchy used in the direct/inverse/equipollent system, we simply say that the morphemes in the five slots constitute a descending hierarchy (left associated with high on the hierarchy, right with low), and that a PM as a whole has a hierarchical status based on its highest-ranking component morpheme. In view of the structure of basic PMs shown in Table 9-16, this effectively generates the following hierarchical classes in descending order:

\[ X_1: \{ \text{LSp, LxMDu, LxMxDu, LxPl} \} \]
\[ X_2: \{ \text{JPl, JlMTr, JlFTr, JlPl} \} \]
\[ X_3: \{ \text{JFSp [including WARA]} \} \]
\[ X_4: \{ \text{JMSg [including NA]} \} \]
\[ X_5: \{ \text{ANA} \} \]

Although there are perhaps a number of ways to generate the surface transitive prefixes from the basic PMs of Table 9-16, we will begin with a simple rule ordering the (entire) PMs relative to each other, and will then account for output forms by means of other rules moving, deleting, or changing individual component morphemes.

**Main Ordering Rule**

In a transitive combination involving PMs of different hierarchical classes (cf. formula above), the high-ranking PM precedes the low-ranking PM. If the two PMs are in the same hierarchical class, if the result is not a portmanteau (§9.6), the subject PM precedes the object PM.

Thus, MANA morpheme /-ma-/ follows PMs of X₁, X₂, or X₃ class regardless of whether /-ma-/ specifies the subject or object. On the other hand, LSp /n²-a/- precedes all third person (X₂, X₃, X₅) PMs regardless of case relationship.

The second part of the rule, affecting PM order in equipollent combinations, has few surface effects. This is because many equipollent prefixes are unanalysable portmanteaus, and others like JPl/WARA → JPl/WARA and JFx/ⁿ²ⁿⁿʳ → JFx/ⁿ²ⁿⁿʳ have subject and object PMs of the same pronominal category (which makes it impossible to determine which is subject and which object unless case-specific morpheme allomorphs are visible).

Some equipollent prefixes which do seem to show subject PM preceding object PM are 1st→2nd A series forms like 1→2Sp /n²-umu-/ (Table 9-2), and JFx/ⁿ²ⁿʳ → JFx/ⁿ²ⁿʳ forms like JFx/ⁿ²ⁿʳ → JFx/ⁿ²ⁿʳ /n²-umu-/ (Table 9-10); the homophony of these two illustrative prefixes is accidental.

The outputs of the Main Ordering Rule need further adjustments before becoming surface forms. For example, after this rule the 2MDu→2Pl combination would have the form

\[ [\text{2Nonsg-Nonsg-}-\text{Subj}] + [\text{-Nonsg-Pl-}-\text{obj}] \]

(cf. Table 9-16). However, gender marker -X- may not precede -Nonsg- or -Pl-. Some anomalies of this type are resolved indirectly.
9.8 B-Insertion and Inverse-Insertion.

The effects of these rules, which insert nonpronominal morphemes into pronominal prefixes, have been informally sketched above (§9.3, §9.4). We now state them more formally, pointing out that they should apply after the Main Ordering Rule and Gender-Hopping.
It would be tedious to give a lengthy exposition of reasons for these formulations so we will just refer to the relevant prefixes affected by the rule.

Part (a) applies when -PL- at the end of one PM is followed by another PM beginning with -Nonsg- (i.e., 3PL/WARA). The exx. are in Table 9-9 (3PL/WARA object), e.g., forms with 1ExPI, 2Pl, and 3PL/WARA subject. The sequence -Nonsg-PL-[Nonsg-PL- in some of these forms ([ marking PM boundary) becomes -Nonsg-Nonsg-PL- (Table 9-9), where the surviving morpheme is that designating the object PM; it is also seen in 3MSg/NA-3FSg/NgARAa /n'uru-/ (Table 9-12), which consists in form simply of an object allomorph of -F-. Part (b) operates in 3PL/WARA-3FSg/NgARAa /n'uru-/ (Table 9-12), which differs from the object PM, as in 3MSg/NA-3FSg/NgARAa /n'uru-/ (Table 9-12), which is thus homophonous and structurally identical to the preceding form. However, note 3FSg/NgARAa-3MSg/NA-3MSga /n'uru-/ (Table 9-10) and the similar 3PSg/NgARAa/NAa /n'uru-/ (Table 9-11), where we have -F- followed by -M- (or NA variant).

The asymmetry between the two parts of the rule is also responsible for the occurrence of distinct forms for 1ExPl, 1InPl, 2Pl, and 3Pl with these object categories. It is reasonable to suppose that such MDu and MTr subject forms "exist," but are indistinguishable on the surface from PI subject forms after Gender-Marker Deletion (and part b of Plural-Deletion).

The remaining morpheme deletions involve the two subclasses of the ANA noun class, ANA and ANAa. The two subclasses are distinguished only within the pronominal prefix system, in object PMs. (As intransitive or transitive subject they share a form /-wlu-/ except in the /-~/ form when subject and object are both in ANA or MANA class.)

The object form of ANA is consistently zero, with the result that transitive ANAa for some pronominal category X (other than ANA or MANA) is identical to the intransitive form for X. Thus the intransitive table 9-1 doubles as the table for ANAa object. It seems best to take the object PM for ANA as zero from the beginning rather than proposing a deletion rule. On the other hand, the object PM for ANAa is -/wlu-/ in some forms and /-~/ in others, and in this instance it does seem best to account for the zero variant by an actual deletion rule (rather than an allomorphic specification). The /-~/ variant occurs after -Pl- morpheme /-~/, i.e., in combination with PI subject. However, the resulting ANAa and ANAa object forms are not identical. Exx. are 3PI/WARA-3ANAw /wuru-/ (Table 9-1, also intransitive 3PI/WARA and 3PI/WARA-3ANAw /wuru-/ (Table 9-10). The latter shows the same allomorph /-wuru-/ of -Pl- found in forms with nonzero NC marker or gender marker for object; 3PI/WARA-3FSg/NgARAa /wirin-/ (Table 9-10). Therefore the /-~/ of ANAa acts like a nonzero NC marker, while the /-~/ of ANA leaves no imprint, even indirectly.

**ANAa Object Deletion**

After allomorphs are assigned, delete ANAa object marker following -PL-.
9.10 A morpheme conversion rule (PI- becomes -Nonsg-).

In the formulation of PI-Deletion in the preceding section, part (f) states that -PI- morpheme /-rv-/ is deleted when directly after the B morpheme and directly before a nonzero object PM. If -PI- follows -B- but there is no nonzero object PM after it, -PI- is not deleted by PI-Deletion. However, it is subject to a rule converting it from -Pl- into -Nonsg-.

**PI-to-Nonsg Conversion**

When the sequence -B-Pl- occurs at the end of the whole pronominal prefix, convert -Pl- into -Nonsg-.

When the relevant PM is 2Pl or 3Pl, the sequence -B-Pl- cannot occur since there is already a -Nonsg- morpheme separating these two in the B forms (2Nonsg-B-Nonsg-Pl-, B-Nonsg-Pl-, respectively). However, consider 1ExPla /nuru-/, i.e., 1ExNonsg-Pl-, and its B counterpart /nau-/; which I analyse as 1ExNonsg-B-Nonsg- /nVu-wVu-wVu-/ Similarly with 1InPlb /nVu-nVu-/, 1InPlb /nVu-nVu-/.

(These are also used as transitives with ANW object, Table 9-1.)

Such forms require the conversion rule indicated.

This rule is probably motivated by the phonological awkwardness of a putative sequence */wVu-an-rVu-*. Hardening P-18 does have a rule */a-/* after stop or nasal, but it is unproductive, applying only to a handful of morphemes. Also, if 1ExPla /nuru-/ had a B variant like */nVu-wVu-wVu-*/ /nVu-nVu-/ with the large set of verbs beginning in vowels (or in the Benefactive or Comitative derivational prefix) we would end up with homophony with 2Sg /nVu-nVu-/* the latter triggers Pronominal 4-Insertion P-20, as in */nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-nVu-/* /nBu-nVu-/* /nVun-/* /nVu-nVu-/* /nVu-nVu-/* /nVu-
-Nonsg- and -Pl- Allomorphs

-Nonsg- nonfinally in pronominal prefix /-w2V-/; finally /-w2a-/ in object function, /-w2u-/ as intransitive subject (or subject with zero ANA~ object PM), or /-w2i-/ as transitive subject with nonzero object PM.

-Pl- nonfinally in pronominal prefix /-ri-/ in transitive subject function or /-riu-/ before Inverse morpheme in object function; finally /-ra-/ in object function, /-ru-/ for intransitive subject (or transitive subject with zero ANA~ object PM).

Forms marked as having /V/ acquire surface vowel quality by V-Assimilation P-37 or (before Inverse morpheme) V-Ablaut P-38. In those cases where vowel quality is determined directly by the allomorph rule itself, we notice an association in both morphemes of /a/ with transitive object, /i/ with transitive subject, and /u/ with intransitive subject, with the stipulation that transitives with ANAg object are treated like intransitives. Exx. with /a/ for object are in Table 9-9 (direct and equipollent sections); exx. with /i/ for transitive subject are 3Pl/WARA subject forms (among others) in Tables 9-3 to 9-6 (/-w2i-/) and 9-12, 9-14, and 9-15 (/-rii-/). Exx. with /u/ in intransitive function are in Table 9-1, viz., B forms of 1ExPl and 1InPl (/-w2u-/) and both forms of 3Pl/WARA (/-ruu-/).

Gender Marker Allomorphs

-M- /-mi-/ in subject function and before Inverse morpheme in object function; /-mu-/ at end of pronominal prefix as object in direct forms.  

(-NA-) [NA class merged with -M- in pronominal prefix morphology except that morpheme is invariably /-mi-, never */-mu-/]  

-F- nonfinally in pronominal prefix /-ri-/ in transitive subject function or /-riu-/ before Inverse morpheme in object function; finally /-riu-/ for intransitive subject with zero ANA~ object PM.

Both -M- and -F- show a general preference for /i/ vowel, which is always found (in underlying forms) when the morpheme is nonfinal within the pronominal prefix. For the sequence /-nuu-/ (/F-M-) I assume underlying /-nuu-/ with V-Assimilation P-37, part h. When the -M- or -F- morpheme is final in object function, the vowel becomes /u/, except that -F- shows /a/ after Pl /-ri-/ (note that /a/ is associated with object function with -Nonsg- and -Pl- as well, cf. top of this page). The NA class marker, which I have treated in this chapter as a special case of -M-, is actually distinguished from -M- by avoiding the /-nu-/ object allomorph, hence the difference between Table 9-10 and 9-11. (There is no similar division between -F- and NARA.)

It remains only to specify forms of the nonhuman NC categories ANA and MANA.

9.12 Nomina tive-accusative or ergative-absolutive patterning?

In general, the system of pronominal prefixes does not fit nicely into either nominative-accusative or ergative-absolutive patterns. This is because the major structural feature of the system is the direct/inverse/equipollent division and the associated ordering rules based on pronominal category rather than case function. However, there are a number of details suggesting a tendency toward nominative-accusative patterning with respect to allomorphic rules; relevant morphemes here are 1ExNonsg-, 2SgB-, -M-, -F- (including NARA), and ANAg. In addition, the rule of ANAwu Object Deletion may be mentioned, and deletion of -Pl- before Inverse morpheme //N-// (Pl-Deletion, part c) tends to produce special shortened object PMa (for 1ExPl, 2Pl, and 3Pl). These features generally set off object as a special category distinct from subject (intransitive/transitive).

On the other hand, many other pronominal morphemes have the same form for subject and object (1Sg, 1InDu, NA, MANA), and some (Pl, Nonag) have distinct forms for all three of intransitive subject, transitive subject, and object.
Chapter 10

Verbal derivational affixes

10.1 General.

In this chapter we are concerned with a smallish number of basic derivational prefixes and suffixes used with verbs (and to a limited extent with some nouns). It should be noted immediately that there is no sharp distinction between the derivational elements, especially prefixes, dealt with here and the more specialised elements covered in Chapter 14 under compounding.

The elements covered in the present chapter are generally associated with verbal voice, hence indirectly with case marking of associated NPs. This is rather obvious in most instances, but not so in the case of Multiple prefixes like /-w,ara-/. However, under closer analysis even the Multiple prefixes turn out to be connected with grammatical relations in one way or other.

We will present, one by one, the basic derivational affixes as follows: Benefactive prefix (§10.2), Comitative prefix (§10.3), Multiple prefixes (§10.4), Reflexive suffix (§10.5), Reciprocal suffix (§10.6), Causative suffix (§10.7); suffixes deriving verbs from (mainly) adjectival nouns, Inchoative (§10.8) and Factitive (§10.9); miscellaneous minor derivational suffixes (§10.10); and ordering and logical relationships involving combinations of two or more derivational affixes (§10.11).

It should be noted that some of the morpheme labels indicate only the most usual function, and that further analysis shows a more interesting meaning and/or a multiplicity of functions. For example, some Refl verb forms are actually antipassives rather than passive-like forms, and some Caus verbs really involve promotion to object.

10.2 Benefactive /-aG-/ or /-waG-/. The most common Benef prefix is /-aG-/, positioned after the pronominal prefix but before anything else. Since the pronominal prefix usually ends in a short vowel, VV-Contraction P-49 applies, as in //n'yar-aG=amaja-yy//~/n'yanar/-=amaji-yy// 'I stole (it) from him'. The /G// always disappears from the surface by Stop-Deletion P-29, but before being deleted it may trigger various effects,
including inclusion of /g/ at the beginning of a vowel-initial following morpheme by Velar-Insertion P-8 (as in the ex. just given),
and hardens following /w/, to /b/ and /d/ to /j/ by Hardening
P-18 in other exx. When preceded by one of the few pronominal
prefixes ending in /w/, the output is affected by Pronominal
d-Insertion (including vowel lengthening), as in /*-an-wa=ma-ja-1//
/-man-nd-ai-gama-ji-1//- 'I will steal (it) from it (ANA class).

There is a less common variant */-an-/* with its surface realisation
is /*-a-/*, or after /-v/ usually */-ya/- (by *-Deletion
and then y-Insertion P-10) and then y-Insertion P-10, with the same behaviour of final
//G// as in the previous allomorph.

It should be noted that there is a compounding initial /*-aG-/* or
/-a-/* 'ground, earth' which should be distinguished carefully
from the major allomorph of the Benef morpheme.

The Benef form is treated as a high-frequency form which recognises a
dative NP, which might be specified by an independent NP in Allative-Dative
with suffix //w// (optionally replaced by Nominative zero),
and the "object" marker in the pronominal prefix refers to the
dative NP. If the verb stem is already transitive before Benef is
added, the underlying direct object is dropped from the pronominal
prefix and replaced by the dative object. However, the direct object
may show any as an independent NP (ordinarily in Nominative case, as
is regular for direct objects), and may also be indexed indirectly
in the verb itself, e.g., by the Multiple derivational prefix or by
some compound initial associated with objects.

The basic relationships between simple and Benef verb forms,
and their case frames, are these (NPs deletable, word-order variable):

a) input stem is intransitive
input: NP-1 - Pron1=Verb
Benef form: NP-1 - NP x1 y Pron1 - Pron1 = NP x1 y = Verb

b) input stem is transitive
input: NP-1 - NP1 y Pron1 - Pron1=NP x1 y = Verb
Benef form: NP-1 - NP1 y Pron1 = NP x1 y - Pron1=NP x1 y = Verb

Benef forms are mentioned in dictionary entries for verbs if
attested in the texts; the Benef form is so productive that it would
be inappropriate to list all verbs with which it is compatible.

For ex. involving intransitive stems see the following in
dictionary entries: */-n-wa=bara/- or */-n-=-bara/- (with
a-Epenthesis P-1 before stop) 'sit for' (i.e., have proprietary
control or interest in), also cpd. */-a-adama=-bara/- and cpd. */-a-adura=-bara/-, both 'to be fond of'; */-wa=-bara/- from
/*-a-/* 'to be afraid of'; */-a-adur=ir(1)=n-/* 'to be afraid of'
and then y-Insertion P-10, with the same behaviour of final
//G// as in the previous allomorph.

§10.2

from */-yaga/- /-a-dyalaga/- to get angry at' from */-yagan-/*
/-a-gada/- to shout to/at' from */-nya/-
/-a-ga:jama/- to get water for (person) from */-wa=aga/-
/-a-logina/- to clear ground (for person) from */-washul/
/-a=garula/- to get (anything) for (someone) from */-washul/
/-a-ganu/- steal from (person) from */-maga/-
/-a=garula/- to steal from (person) from */-unja/-
/-a=garula/- to steal from (person) from */-maga/.

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/-a-ganu/- steal from (person) from */-maga/-
/-a=garula/- to steal from (person) from */-unja/-
/-a=garula/- to steal from (person) from */-maga/.
drag for' from /=w~/wa:garadjiyi=/; /=a=bu-/ 'to hit or kill (someone) who is a close relative of (someone, dat.)' (add TNT 18) from /=w~/u-; /=a=garulji-/ or /=a=burulji-/ 'to lift (it) up for' from /=w~/wurlji-/; /=a=jajai-/ 'to put it (in) for' (add TNT 20rdp from /=w~gajai-/; /=a=jaba-/ to find (something) of (someone, dat.)' (TNT 18) from /=hanarmaj-/ /=a=mandumangar-/ 'to get too many' (TNT 28, 29) from /=mangaj-/ 'to win big, get lots' plus cpd. initial; /=a=garmanda-/ 'to crave (something) of (someone, dat.)' (TNT 9, 34) from /=manamangar-/ 'to crave (it)'; /=a=garaj-/ /=a=garuyu-/ 'to carry (it) on shoulder for' (TNT 9) from /=mayu-/; /=a=garu-/ 'to leave (it) for' (TNT 7) from /=maru-/; /=a=garuyu-/ 'to cut (it) up for' (MT 26, twice) from /=mayu-/ also cpd. /=a=hanmguruyu-/ 'to put up meat' [ /=manguraj-/ ] for' from same root (MT 26); /=a=garu-/ 'to put up platform for' (TNT 17) from /=w~/wurhaj-/; /=a=jama=yami-ga~ja~/ or /=wa=ja=yami-ga~ja~/ 'to do (it) thus to (dative)' (TNT 13) from internal rdp of /=yami-ga~/, a derivative of /=yama~/ 'to do thus'.

The above exx. of Benef forms from intransitive and transitive inputs show a range of dative (including benefactive) participants, often with the committer (i.e., who is hurt rather than helped), source (as in 'take from', usually associated with adverse beneficiary), addressee ('to shout at'), owner or possessor (of implicit direct object), and object of emotion ('be afraid of', 'be suspicious of', etc.).

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Example sentences:

- '/=a=garaj-/': 'to leave (it) for' (TNT 7)
- '/=a=garuyu-/': 'to cut (it) up for' (MT 26)
- '/=a=hanmguruyu-/': 'to put up meat' [ /=manguraj-/ ] for'
- '/=a=garu-/': 'to leave (it) for' (TNT 7)
- '/=a=garuyu-/': 'to cut (it) up for'
- '/=a=hanmguruyu-/': 'to put up meat'
- '/=a=jama=yami-ga~ja~/': 'to do (it) thus to (dative)' (TNT 13)
- '/=yami-ga~/': a derivative of /=yama~/ 'to do thus'.

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A schematic representation of the simplex and Comit forms of intransitive verb stems is this:

```
<table>
<thead>
<tr>
<th>Input</th>
<th>NF 1-2</th>
<th>Pron = Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comit</td>
<td>NF 3-2</td>
<td>Pron = Comit = Verb</td>
</tr>
</tbody>
</table>
```

As usual, word order is variable and the independent NPs are only optional.

Indeed, the vast majority of attested Comit forms involve intransitive stems. E.g., listed in the dictionary (under the entry for the simplex stem) are /-an/-yanga=/ 'to hear'.

There are a number of other derivational prefixes, all much less common than /-an/-ji-/ which resemble it semantically to some extent. These are mentioned in §10.10, below. The relevant ones are:

- /an/-gama=/ 'together'
- /an/-alu=/ 'both together'
- /an/-ku=/ 'close together'
- /an/-laja=/ 'all together'

Most of these occur in a small number of combinations only. The simplex prefixes ('all', 'both') discussed in the following section may sometimes, in context, overlap functionally with Comit, especially since the Comit is usually limited to intransitive verbs while some Multi prefixes lack this restriction.

10.4 Multiple prefixes: /-n/-araG=/ or /-n/-araG=/, /-w/-ara=/ or /-w/-araG=/, /-n/-ara=/, /-n/-araG=/, /-w/-araG=/.

In this section we discuss an assortment of prefixes, collectively labeled Multiple, which emphasize multiplicity of agents, objects, or locations of a verbal event or situation. The usual translation is 'all' or sometimes 'all over', 'all around', etc.; in contexts involving two entities the translation may be 'both'. As with English 'all' and 'both', the Multi prefixes are optional and emphatic. The common ones are /-n/-araG=/ (or /-n/-araG=) and /-w/-araG=/ (variant /-n/-araG=), while the three others are characteristic of a handful of verb stems each.

/-w/-ara=/ (or /-n/-ara=) is sometimes used as a more or less meaningless 'compound' initial for some verbs which regularly require a compound initial, when no semantically specific compound initial is used; see §14.10.

In addition to their uses as general-purpose Multi prefixes, /-n/-ara-= and /-w/-ara=/ can be used as defective (bound) noun roots, requiring preceding Multi prefix (§4.9). The meaning is 'pile, heap' (at least, in the /-n/-ara=/ form) and /-w/-ara=/ is not used (at least not regularly) in this meaning. The forms with ANA (and optional initial NC) prefixes are /-n/-u/-araG=/ and (variant /-n/-u/-araG=), /-n/-u/-araG=/ (variant /-n/-u/-araG=), /-w/-araG=/, /-w/-araG=/ (variant /-w/-araG=), /-w/-araG=/, /-w/-araG=/. As usual with such defective noun roots, they can be used as compound initials (meaning 'heap') and the Multi function ('all', 'both', 'all over') is essentially an extension of this compound-initial usage. However, it is advisable to distinguish the 'heap' function from the Multi prefixes, since the use of allomorph variants is different in the two types, and especially since there are some grammatical differences. The Multi function is much more common than the compound-initial function for these items.

Beginning with /-n/-araG=/ and /-n/-araG=, we may make the following essential points: a) in the sense 'heap', the form is normally /-n/-araG=, while in Multi function the form is usually /-n/-araG=/ with /-araG=/ as uncommon free variant (the /-araG=/ disappears by Stop-Deletion P-29 but often affects the beginning of the following morpheme by Hardening P-13, or before underlying vowel by Velar-Insertion P-8); b) in the sense 'heap' the reference is normally to intransitive subject or transitive object (as usual

There are a number of other derivational prefixes, all much less common than /-an/-ji-/ which resemble it semantically to some extent. These are mentioned in §10.10, below. The relevant ones are:
for semantically concrete compound initials, see Chapter 14), while in Mult function the reference is to multiplicity of intransitive subject only; c) the spatial sense 'all over, all around' which is possible with Mult /-w ara-/ is not possible with /-n araG-/ or /-n araG-. Exx. which seem to involve /-n araG-/ 'hemp' are these: /-n araG-ni=dhumru-/ 'to crush heap' (118.3.4), /-n araG-ni=gud/- 'to dig up heap' (elicited), /-n araG-nj=yula-/ 'to stir up (yam slices)' with internal reduplication (125.9.2), and /-n araG-nj=we-/ 'to be thin bunch [of yam slices]' (125.7.3) with predicative Na. Note that the exx. with verbs involve direct object function. A fifth apparent exx. /-n araG-gulgulda-/ 'to cut out [honeycomb]' (142.5.4), may involve the sense 'heap [i.e., quantity of honey]' or may involve confusion between /-n araG-/ 'heap' and another copula /-n araG-/ 'honey, honeycomb'. Since, as compound initial, /-n araG-/ 'honey' is phonologically indistinguishable from /-n araG-/ Mult allomorph, it may be that the two forms are becoming formally confused, so that even the /-n araG-/ allomorph ('heap' or Mult) is extended sporadically to mean 'honey'.

Jawir filtered out these gpi. initials, the remaining cases of /-n araG-/ or occasionally /-n araG- can be identified as Mult, though perhaps there are a few cases where 'heap' is an arguably possible gloss. The Mult exx. appear to specifically emphasize multiplicity of intransitive subject in all instances. (This becomes formalized intransitive refl. forms, and some intransitives with Benef; see §10.11.)

Since some of the same verbs are attested both with /-n araG-/ and /-w ara-/ (or their variants), let us look first at these doublets to try to understand the differences between the two Mult prefixes. In intransitives we show below that /-w ara-/ is also be used for object multiplicity and spatial multiplicity with transitives, while /-n araG-/ is not.

Available doublets are these: /-yaba-/ or internal rdp, /-raba-/ 'to come out', /-ara-gaba-/ /3.15.1 they[ghosts] came out and /w ara-gaba-/ MT 18 'they[two boys] both came out', vs. /-w ara-gaba-/ MT 29.12.3 'seaweed, cuttlefish gills, and other shore debris' all came out; /-raba- to fall', /-ara-gabi-/ 65.3.4 'we both fell', /-w ara-gabi-/ 36.2.2 (also 60.3.2, 60.3.3 rdp, 98.6.3, and MT 8) 'rain' to fall, /-bali-/ 'to rain'; /-w ara-gab/- 'to go back', /-ara-gai/- 'to all go back' (35.9.1 stingrays in myth, MT 15 and 15rdp humanoid spirits) and variant /-ara-gai/- 166.29.1 'we all went back', vs. /-w ara-gai-/ MT 116.10.2 'they[people] all went back'; /-ara-gala-/ 'they all arrived, lots of them arrived' (40.8.1fr. ghosts, 52.4.2 and 166.17.4 people) vs. /-w ara-gala-/ MT 161.26.2 '1[equipment] all arrived'; Refl /-w arbi/- 'to do', /-ara-gab/- MT 7 'they[two dogs in myth] both did it', vs. /-w ara-gab/- 98.3.1 'liquid extracted from strychnine nuts' does it'; /-w ara-ga/- 'to go all over' MT 18.22.1 Catfish people in myth, 20.4.1 two King Brown eels in myth, 20.15.1rdp ditto, 35.12.1 several types of rays in myth) vs. /-w ara-ga-/ /-w ara-ga-/ 'to go all around' (132.11.6).

These exx. suggest that /-n araG-/ emphasizes multiplicity of human or other consciously acting agents, while /-w ara-/ indicates multiplicity or large quantity of inanimate or otherwise nonvolitional entities, and may also have spatial sense 'all over, all around'. This list includes just one exception with human agent ("to go back"), though perhaps here the sense intended was 'all over'. Moreover, consideration of exx. of /-n araG-/ and /-w ara-/ with other verbs (i.e., those which do not have attested doublets showing contrastive uses of the two) supports the view that /-n araG-/ indicates multiplicity of volitional actors while /-w ara-/ indicates multiplicity or quantity of nonvolitional entities or spatial distribution of actions.

Further exx. of /-w ara-/ are mentioned in dictionary entries, usually with textual citations, as follows: /-buguwurumu- 'ma-/ 'to look away', /-garaja- 'to jump', /-jajurna- 'to jump in water', Refl /-julubi-/ 'to hide', /-ilgha-/ 'to go through surface', /-lan'abarbi-/ 'to bob up and down', /-lina-/ 'to veer off', /-manj/- 'to bathe', /-palha-/ 'bird, etc., to land', /-abi- 'to float', /-radada-/ 'to go up slope' (add MT 15), /-allaha-/ 'to float, be lightweight', /-ambagala-/ 'to sit together', /-ambulba-/ 'to be born', /-anj/- 'to come [imperative]', /-xara-gala-/ [fish] to move around', loanword /-w arda-/ 'to work', /-xara-riwa-/ [fish] to jump around' (in 24.1.2 note emendation of "it to精灵", /-yabi-/ 'to go in', /-yulda-/ 'to go in, slip past' (add MT 14), /-yama-/ 'to say', /-yama- to talk to', /-yama/- 'to talk to', /-yam/- 'to drink' (MT 18, s.v. /-yama/), /-yaga-/ 'to go in front, be first' (TNT 3), Refl /-w ara-/ 'to go in circle' (MT 4), /-xala-/ 'to dig' (MT 18), /-w ara- to speak' (TNT 26).

Since all of our textual attestations of /-n araG-/ involve intransitive verbs, and we have no exx. of this prefix (except in the sense 'heap' in the form /-n araG-/ with transitive verb, we conclude that this is a grammatically significant fact.

We now focus on /-w ara-/ including the occasional variant /-w araG-/ (the two are not distinguishable before nasals or /l/, in which case we presume /-w ara-/). We have already pointed out that intransitive verbs which can take either /-n araG-/ or /-w ara- use the latter for multiplicity or quantity of nonvolitional (mostly inanimate) entity, or for spatial distribution ('all around').

Additional intransitive /-w ara-/ forms given in dictionary entries (usually with text citations) are /-w ara-/ 'shake all over' (s.v. /-biliwila-/), /-w ara-/ 'burst all to sit' (146.1.2 bark of tree, MT 11 water, cf. /-n ara-/ 'burst' for volitional just given in addition to all ready given citations); /-ara-gaya-/ /-yama-/ 'to sing [several things]' (emend gloss for 167.1.1 accordingly); /-w ara-/ 'shake spear in spear thrower' or /-ara-/ /-alha-/ 'to all bathe' (95.3.4 emus); /-ariga-/ 'shake in spear thrower' with /-w ara-/ /-alha-/ and /-ara- /-alha-/ 'all to float' (100.2.5 mixt with /-ara-/ /-alha-/ and other consciously acting agents, /-ara- /-alha-/ 'all to burst' with internal rdp.; /-ara-arabi-/ 'be stiff all over'; /-ara-/ 'to run all over'; New exx. from Hughes' texts include /-ara-gabi-/ /-canoe be all
I-wala-/ ‘to combine’ optionally to /-wlara-/, /-wlara-/ ‘to shake spear’ (TNT 126.1.3pred, 143.1.3.3pred), /-ara-/ ‘to suddenly’ (§4.17 on this point). We can also get /-ara-/ ‘all kinds of small rays’ (e.g., for the latter term meaning ‘all kinds of’, as in /-wlara-/ or variant /-wlaraG-/ may also co-occur with NAdj, normally in predicative function (i.e., with intransitive pronominal prefix). Exx. are /-ara-nu=m-bu:lu:mu:/ ‘to be long’ (66.1.3pred), /-ara-/ ‘all be ripe or cooked’ (TNT 25pred), /-ara=-mbadu:/ ‘to know much’ (59.1.6pred), /-ara=/ ‘all’ (255.1.3pred) ‘to be diseased (visibly)’; antonym /-ara=/ ‘be normal’ (109.3.1, 109.7.3). See also §15.9.

387

In general, multiplicity of semantic object and spatial distribution are fairly interchangeable, so in many of the exx. just mentioned more than one gloss is possible (in different contexts). When the sense is object multiplicity, the object in question is normally nonhuman; this is not an absolute rule, but it is unusual for any Multi prefix to be used for human object (except in spatial distribution sense, as in ‘he hit me all over’).

Related to this is the fact that /-ara-/ in its object multiplicity usage, refers to semantic direct object (patient) even when the object marked in the verb’s pronominal prefix is the semantic indirect object. For example, the final ex. on the preceding page, ‘to show all to’, has the viewer as an object in the pronominal prefix, but Multi /-ara-/ indicates multiplicity of things shown (at least in the relevant textual ex.). This is also the case with /-ara-/ ‘to tell lots of things to,’ also mentioned on the preceding page. As pointed out in §10.11, when /-ara-/ is preceded by Benef /-aG-/ (§10.2), so that the pronominal prefix must have an indirect object as the object marker, /-ara-/ again refers not to this semantic indirect object but to the Semantic (or underlying) direct object. Moreover, some intransitive verbs which have ‘transitive’ sense (implying acting on some entity) seem to have Multi /-ara-/ focus on the implied object or product, as in the previously cited /-ara=maya=maya-/ ‘to sing [several things]’ (not *all [singers] to sing’). /-ara-/ thus provides evidence for a level of pre-morphological, essentially semantic grammatical relations. See also §15.9.

/-ara-/ or variant /-araG-/ may also co-occur with NAdj, generally in predicative function (i.e., with intransitive pronominal prefix). Exx. are /-ara-nu=m-bu:lu:mu:/ ‘to be long’ (66.1.3pred), /-ara-/ ‘all be ripe or cooked’ (TNT 25pred), /-ara=-mbadu:/ ‘to know much’ (59.1.6pred), /-ara=/ ‘all’ (255.1.3pred) ‘to be diseased (visibly)’; antonym /-ara=/ ‘be normal’ (109.3.1, 109.7.3). See also §15.9.

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Note that all known exx. involve /='/e-/ at the beginning of the following stems, by Hardening P=18. It remains to mention a handful of minor Mult prefix forms, each used with one or two roots only.

/-lahagara-/ is used with /=yi-/ 'to sleep', its Caus form /-yam'i-jen-/ 'to put (someone) to sleep', and /=yam'wi-/ 'to die'; see dictionary entries for textual exx. (of which there are many). The prefix indicates multiplicity of sleepers or deceased; note that /-lahagara-/ thus expresses the semantic similarity between 'to sleep' and 'to die'. Perhaps by analogy to /-lahagara=ya=m'i-jen-/ 'to put [all] to sleep', we have an ex. of /-lahagara=la=ni-jen-/ 'to make [all] stand up' (MT 28), though /-lahagara-/ is not attested with the simplex root /=ya-/ 'to stand' (cf. below). Except for the Caus forms, /-lahagara-/ occurs (with 'sleep' and 'die') where we might expect /-naraG-/ but, where perhaps /-naraG-/ is avoided because of its implication of voluntary control.

/-w aragara-/ (historically, a frozen reduplication) is used with /=ya-/ 'to stand, to stand up' (many textual citations given in dictionary s.v. /=ya-/). In the cpd. /=lan/=garara=la=ma-/ 62.7.2/3 'to stand up in the form of clouds /=lan-/ ', it appears that /=w aragara-/ is closely bound to the verb root, so the cpd. initial precedes the entire sequence (this is unusual with Mult prefixes, though occasionally attested with /=w ara-/

/-w aragara-/ is also used with transitive /=a:ru-/ 'to leave, abandon' (several textual citations s.v. /=a:ru-/ to which we may add TNT 29 and perhaps MT 22). The reference is to multiplicity of things left behind, rather than agent, hence 'to leave [them] all'. Cpd. /=w aragara=ru-/ 'to leave all the honey', where /=w ara-/ is used instead of the more correct /=n ara-/ 'honey', shows the same adhesion to /=w aragara-/ to verb root just noted for /=w aragara=la=ma-/ . Although 'to stand' and 'to leave' do not constitute a natural semantic subgroup, the subject of 'stand' and the object of 'leave' have the common feature of being positionally stable.

Another uncommon Mult prefix is /=w alagra-/ variant /=w alagra=/, used only with /=m ara-/ 'to quarrel angrily with, shout at'; in the texts the one citable form happens to be the Recip /=w alagra=ma=m'an=ji-/ 'to weep (or shout) at each other' 71.16.1. The various Mult prefixes function morphologically much like compound initials, e.g., in triggering use of compound-final allomorphs (due to suppletion or morphophonemic rules) of following stems. However, /=w ara-/ 'to hit' and its suppletive compound-final replacement /=w adja-/ have an unusual pattern: in the regular transitive form we get Mult /=w ara=wa:wanda-/ 'to hit all' (or 'to hit all over'), but in the Recip we get /=w ara=wi=m'asi-/ 'to hit all (or both) hit each other' (textual citations in the respective dictionary entries). Thus /=w ara-/ acts as a compound initial in the transitive but not Recip forms.

This concludes our factual exposition of matters involving the Mult prefixes. A few words are in order about the relationship between these morphemes and other markers of plurality. Except for human nouns, number is not specified in the basic inflectional apparatus of nouns (Mult prefixes) or verbs (pronominal prefixes). There are a few number suppletions, but not many. Mult prefixes, which are optional (usually emphatic), therefore often represent the only way to mark any kind of plurality for nonhuman NPs. This explains why a morpheme like /=w ara-/ is useful, since it permits an overt specification of plurality (as one of its meanings) for nonhuman intransitive subjects and direct objects. Even /=n araG-/ which is used for mostly human intransitive subjects and is thus more likely to be redundant, can be used with some nonhuman NPs and may thus be the only marker of subject plurality in the clause. Even when redundant (in that plurality is already marked), these Mult prefixes have emphatic functions, for example indicating that all members of a group engaged in some action, and of course the spatial sense is a bonus.

In addition to the Mult forms we have mentioned, there are plural number suffixes, generally with irregular, lexically controlled distribution. For nouns see §4.16 and the discussion of collective reduplication in §4.14; for verbs (using some of the same morphemes) see §4.20.

10.5 Reflexive suffix //i-//. In our analysis, Refl verb forms like /=mahi-/ 'to be shut off' from transitives /=m'aha-/ 'to shut off, block' are represented as consisting of the underlying (input) transitive plus suffix //i-//, with part (a) of VV-Contraction P=45 applying to the underlying vowel sequence at the boundary. However, since the resulting vowel is not always long, the basic effect of reflexivising the verb is to change the stem-final vowel to surface /i/ and to require inflectional suffixes of the I class (Table 11-2). In other words, the asymmetrical derivational layering relating input to Refl verb form is not overtly obvious in the same way as it is for all other derivations discussed in this chapter.

We should also mention that some other derivation-like relationships consist solely of altering inflectional classes. In §11.8 we discuss intransitive N'AI vs. transitive A2 pairs like N'AI /=bura-/ 'to sit' and A2 /=bura-/ 'to put down' (with different inflectional endings), and also some cases of Intransitive A2 vs. transitive I like /=g alburda-/ 'to plunge in (water)' and /=g alburdi-/ 'to put into water'. Note that this latter alternation (limited to about three roots) is the opposite of alternations between transitive A2 verbs like /=ma:ga:/ 'to make' and their Refl counterparts like /=ma:ghi-/

Refl verb forms function to derive mediopassive transitive stems from input transitives. This label is designed to include
reflexive actions like 'to coil self up' and 'to gouge out one's own eye(s)', and also agentless passives like 'to be shut off', whether specifying actions or resulting states.

While this description applies to the majority of attested Refl forms, a minority have a different meaning: antipassive (or, following Dixon, false reflexive). In this usage, the underlying transitive loses its direct object, not its agent. The antipassive usage is limited to a few verbs; those I am aware of are these: /=magi-'/ 'to tell story' < /=mag/ -= 'to tell (person)' and /=magi-'/ 'to do it'.

There are also a few irregular Refl forms including some with intransitive inputs. The intrans. input type is seen in /=magahabadarhi-'/ and /=magahabadars= (A3), both 'to be long time'; /=w,alhi-'/ 'to have opening, gap' < if from /=w,awalha-/ 'to be open' (for uncompounded /=w,alhi-'/ see now TNT §5) and /=ga/='aga=ji-'/ (frozen rdp., synchronically reduplicated as /=ga-ga=pajag=ji-'/ 'to jump (at someone)' related to /=gaga/= 'to jump'. Other semantically irregular Refl forms are /=ga=paj= intrans. rather than trans. pronominal prefixes).

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Recip verb forms with suffix /-i=/ to a transitive root, a few other lexicalised trans./intrans. stem doublets are created by usage of minor suffixes /-ja-'/ and /-dha-'/ (§10.10). In addition, for indefinite agent one can use transitive forms with 3Pl/WARA subject marker in verbs (WARA is indistinguishable from 3Pl in pronominal prefixes, and in any event can be used for indefinite human collectivity, §10.12).

Recip verb forms with suffix /-i=/ (before which the root-final vowel may change to /j/ by V-Fronting P-50, depending on verb class) are derivatives inflected with endings of the 12 class (Table 11-2). As our label suggests, Recip forms often indicate reciprocal transitive activity, as in /=ma=ngi=ji= 'to see each other' and /=ma=ngi=ji= 'to pass by each other', and they are among the objects of the component actions (X sees Y, Y sees X).

However, there are also other meanings, and the Recip is somewhat different from similarly labeled forms in other languages. To begin with, there is a unilinear collective sense (A→B→...), in which the individual component actions are one-way but they add up (like links in a chain) in such a way that all parties can be thought of collectively as associated by the actions. Good exx. of this, referring to extended patrifiliative and matrifiliative sequences, are /=hami=ji= 'to beget each other' (i.e., to form a patriline like PAPA→PA→Ego→SCH) and /=ya=ji= 'to give birth to each other' (i.e., to form a matriline like MoMo→Mo→Ego→DaCh). In exx. like /=ja=du=ngi=ji= 'to finish[kill] each other off' (m.v. /ja=du= in dictionary), this unilinear characteristic of component events may also be discerned, though less clearly. There is also a high-frequency, lexically

Also irregular in permitting Nonpast allomorph /-i=/, usually characteristic of the 12 class (other Refl forms are 11), hence /=ma=ngi=ji= with V-Ablaut P-38 converting /j/ into /a/.

While the Recip is basically a productive formation (for trans. roots), it appears that some verbs do not regularly take this derivation. For exx., /=ga=/ 'to spear, to throw spears at' (one of the most common verbs in my texts) is never attested with Recip; to express the sense 'be speared' either a different verb is used, or the Recip (/=ga=ji= 'spear self' (usual meaning 'coil self up' or 'be coiled'). In general, nononomatopoeic verbs either do not have or make little use of Recip derivations. In addition, verbs already of the 11 class usually do not have distinct Recip forms (which in most cases would differ formally only in having intrans. rather than trans. pronominal prefixes).
specialised Recip form */=lharma-nYji-/ 'to chase each other' which may also mean simply 'to be engaged in a chase' (subject may be plural for both chaser and chased, may be just chaser, or may be just chased). This is often expanded with Comit prefix as */-un-nji=/*lharma-nYji-/ 'to be engaged in a chase with (she the other party). In this instance, the Recip derivative focusses on the joint involvement of the chaser and chased in the activity, and does not usually have the expected sense 'chase each other' (which in most contexts is illogical).

In addition, Recip derivatives may simply indicate joint involvement, and in this sense the component events may be intransitive, as long as the combination of component events (with different agents) forms some kind of a larger pattern. Usually the translation is with 'together'. Thus */=lhamara-nYji-/ 'to pass under together'; */=ludi-nYji-/ 'to frolic together'; */=milichi-nYji-/ 'to shine together'; */=muwardi-nYji-/ 'to smile together'.

If the underived transitive input verb normally takes a semantic indirect object as the object marker in the pronominal prefix, the Recip derivative (in reciprocal-transitive-activity or unilinear-collective sense) is also associated with the relationship between agent and indirect object: */=yi-/ 'to give to, to provide to', Recip */=yi:nYji-/ 'to give each other, to share'. For similar patterns with Benef derivatives as inputs to Recip, see §10.11.

As mentioned in §10.5, since some verbs (mostly monosyllabic roots) seem to avoid the Refl suffix, occasionally a reflexive Recip is used in reflexive sense: */=gari-nYji-/ 'to bite self' or 'to bite each other' from */=gari-/ 'to bite'. In the case of */=yaba-/ 'to give birth to' or 'to put inside', in the latter sense we get a distinction between Refl */=yabi-/ 'to enter (swelling, etc.)' and Recip */=yabi:nYji-/ 'to get into vehicle (e.g., canoe)' (both Refl and Recip may take singular subjects; for unilinear-collective 'to give birth to each other' cf. above).

Parallel to the few or so cases of lexicalised antipassive sense for Refl verbs (§10.9), we seem to get antipassive (Dixon's "Naθ" reflexive reflexive sense) in */=argi-nYji-/ 'which can also mean 'to carry (unspecified load)' as in §10.9.2 as well as 'to carry each other (on shoulders)'; note that the latter sense is semantically awkward since carrying on shoulder is intrinsically non reciprocal. Diaphonic sense is found in */=argi-nYji-/ 'to go out in a race' from */=argi-/ 'to pull', and perhaps in */=munda-nYji-/ 'to examine, sort'. Phonological irregularity is seen in */=jurjurga-nYji-/ 'to push each other' from */=jurjurga-/ (note shift of /j/ to /h/) and in */=muula-gi:nYji-/ 'to be paired, [two] to be together' from */=muula-gi-/ (root /=muul-/ 'to do something' twice to */=muul-/ has A2 paradigm and thus should not shift /a/ to /i/ before /-nYji-/.

To indicate 'to become X together' (X some NAdj designating an adjectival quality), it seems that the NAdj is first converted into a transitive (factitive) verb with */=w2a-/ (§10.9) and then Recip is added: */=buJbuJ-/ 'withered, dried' — */=buJbuJ-ga-nYji-/ 'to wither [something]' — */=buJbuJ-ga-nYji-/ 'to become withered together' (108.2.1).

The Recip formation is rather productive; there are many verbs which do not have it but this seems to be because it would not make much sense logically with them (rather than because of arbitrary lexical restrictions). Often a Munggubuyu Recip form corresponds to a distinctive English lexical item: */=w2a-nYji-/ 'to hit each other, fight' (*/=w2a-nYji-/ 'to hit each other, have spear fight'; */=lhamara-nYji-/ 'reach or find each other, meet'; */=ra-(w)a-nYji-/ 'to swear at each other, quarrel'; */=yandiri-nYji-/ 'to touch each other, be closely bunched'; */=urumena-nYji-/ 'to buzz around each other, swarm'; */=pairu-nYji-/ 'is abandon one another, disperse'.

Occasionally, however, a semantically reciprocal expression may be achieved by simply repeating the transitive verb with different subject and object (A verbs B, B verbs A), perhaps with an additional clause containing */=dun-ju-nYji-/ 'alike, equally, reciprocally'. An ex. is 78.1.7/6 ('...he gives his niece, [an] exchange, they are reciprocal, he will give (her) to them; they will give [a wife] to him, and as for him he will give [his niece] to them, [an] exchange').

For information on co-occurrence of Recip with other derivational affixes (and logical relationships in these combinations), see §10.11.

10.7 Causative suffix */=jga-/, */=jgi-/. The usual Caus suffix is */=jga-/, though there is a rare, archaic variant */=jgi-/. The input stem to which the suffix is added is usually an intransitive verb stem.

We should also mention */=ya:ri:jgi-/ 'to transport, convey', the only exx. of */=jgi-/ are these: */=ya:ri:jgi-/ 'to send back' < */=ya:ri-/ 'to go back' */=ya:ri:jgi:/ 'to take out' < */=ya:ribali:/ 'to come out' /=ya:ribali:/ 'to transport, convey', which may be related to */=ya-/ 'to go' (Nonpast */=ya-ri:/ with apparent */=ra-/*-augment. In the case of */=ya:ribali:jgi-/ the variant */=ya:ri:jgi:/ also attested, but another form */=ya:ribali:/ 'to take out' is more common than either (for trans. */=a:/ corresponding to intrans. */=a:/, see §11.8).

In addition to the */=jgi-/ vs. */=jga-/ alternation just mentioned, we should add that causative-like forms from intransitives of the NAdj verb class (§11.8 and Table 11-4), many of which are stance verbs (§11.9.1, etc.) and take out' is more common than either (for trans. */=a:/ corresponding to intrans. */=a:/, see §11.8).

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to which /-jga-/ is added is normally intransitive, but the Caus derivative is transitive, with the causal/permissive agent the subject and the underlying downstairs subject becoming direct object. Syntactically, the /-jga-/ Caus verb is like a lexical transitive verb (e.g., regarding case marking of independent NPs in the clause). For combinations of /-jga-/ with other derivational affixes, see §10.11, below.

For the phonology and stem-augmentation of roots before /-jga-/ see, the paradigms in Chapter 11. Some exx. of Causs Forms in causal/permissive sense are: /=na~i/-jga-/ 'to exact'; /=hima-/ 'to stand' N\(\text{\textsection}11\); /=dhadarbi-(j)ga-/ 'to cause to shift position' < /\(\text{\textsection}\)dhadharbi-/ I; /=dhirdi-jga-/ 'to take [it] down' < /=dhirda-/ 'to go down' A\(\text{\textsection}12\); /=murbuli-jga-/ 'to heat' < =murbula-/ to be hot A\(\text{\textsection}11\); /=man\(\text{AN}\)ga-yi-jga-/ 'to cause to breathe' < /=yan\(\text{AN}\)ga-/ YA; /=warn\(\text{AN}\)ga-yu-jga-/ 'to chase away' < /=warn\(\text{AN}\)ga-/ 'to flee' A\(\text{\textsection}11\); Labels like N\(\text{\textsection}21\) and I indicate inflectional class of input verb (Chapter 11).

Apparent exx. of Caus from transitive input are these: /=gul\(\text{\textsection}21\)-jga-/ 'to ruin things for' < /=gul\(\text{\textsection}21\)-/ to make [culprit] face punishment ordeal'; /=al\(\text{\textsection}21\)-jga-/ 'to cause [someone] to do it to all of them' < /=al\(\text{\textsection}21\)-/ 'to do it to all of them'. However, in one or two exx. which might look like Caus from trans. root, it may be that the form is really of the type Verb-Refl-Caus, where the Refl has no surface phonological effect (Refl basically shows up only in the verb-final vowel to /-j/, but this is done before /-jga-/ by V-Fronting P\(-5\). Thus /=\(\text{\textsection}\)gandi-jga-/ 'to cause [someone, something] to sink in water' (MT 30), which may look superficially as /-jga-/ added to trans. /=\(\text{\textsection}\)gandi-/ 'to throw [it] into water', but which is semantically /-jga-/ added to Refl /=\(\text{\textsection}\)gandi-/ 'to sink' and is attested as much MT 15 and 39, and with a cp. initial also MT 30. Since /=\(\text{\textsection}\)l\(\text{	extsection}7\)-jga-/ with Refl suffix is also phonologically compatible with the output /=\(\text{\textsection}\)l\(\text{\textsection}7\)-jga-/ it is reasonable to assume that this really is Verb-Refl-Caus, and hence rewrite it as /=\(\text{\textsection}\)gandi-jga-/.

While there are thus very few real exx. of trans. verb input, there are a few apparent exx. of /-jga-/ added directly to noun roots, although the regular way to make a transitive (factitive) verb out of a noun is to add Fact /-\(\text{\textsection}\)Ii-/ ($\text{\textsection}10.9$). The attested exx. are /=w\(\text{\textsection}\)i\(\text{\textsection}7\)-jga-/ 'to dance'; /=w\(\text{\textsection}\)i\(\text{\textsection}7\)-\(\text{\textsection}7\)i\(\text{\textsection}7\)-jga-/ 'to dance'; /=yaml-jga-/ 'to say somethingJ to [someone]'; /=\(\text{\textsection}\)yam\(\text{\textsection}21\)-gari-jga-/ 'to do what to [someone, dir. obj.]'; /=\(\text{\textsection}\)yam\(\text{\textsection}21\)-gari-jga-/ 'to do what? ($\text{\textsection}13.9$).

There is no other derivational affix used in this promotion-to-object function. However, a few verbs are used either intrans., or (object-promoted) trans. function with no change in suffixation; the pronominal prefix, however, must mark both subject and object in the object-promoted form. The exx. are /=\(\text{\textsection}\)yam\(\text{\textsection}21\)-l\(\text{\textsection}7\)-ga-/ 'to speak to [someone]' or 'to speak to [someone]'; /=\(\text{\textsection}\)yam\(\text{\textsection}21\)-l\(\text{\textsection}7\)-ga-/ 'to travel, visit' or to visit [someone, dir. obj.]'; /=\(\text{\textsection}\)yam\(\text{\textsection}21\)-l\(\text{\textsection}7\)-ga-/ 'to sing' or 'to call [someone by name, usually based on a songwordJ'; /=\(\text{\textsection}\)ann\(\text{\textsection}21\)-l\(\text{\textsection}7\)-ga-/ 'to dance' or 'to tread on' (for /=\(\text{\textsection}\)ann\(\text{\textsection}21\)-l\(\text{\textsection}7\)-ga-/ cf. above). It is less easy to find such underived intrans./trans. doublets where the trans. form has causal/permissive sense; we can cite only /=\(\text{\textsection}\)mur\(\text{\textsection}21\)-l\(\text{\textsection}7\)-ga-/ 'to come together, assemble' and 'to gather [them] into heap or group'.

A semantic pattern which does not fit into the above categories is seen in /=\(\text{\textsection}\)l\(\text{\textsection}14\)-l\(\text{\textsection}7\)-ja-/ 'to dawn' (with nonhuman ANA class subject) and Caus /=\(\text{\textsection}\)l\(\text{\textsection}14\)-l\(\text{\textsection}7\)-ja-/ 'to stay up until dawn' (human trans. subject, ANA class marker as direct object).

Caus /=\(\text{\textsection}\)l\(\text{\textsection}14\)-l\(\text{\textsection}7\)-ja-/ creates derived stems which have A\(\text{\textsection}11\) inflectional endings (Table 11-1), while uncommon variant /=\(\text{\textsection}\)l\(\text{\textsection}14\)-j\(\text{\textsection}7\)- has I\(\text{\textsection}11\) endings (Table 11-2). The /-j\(\text{\textsection}11\)/ in /-\(\text{\textsection}\)l\(\text{\textsection}14\)-j\(\text{\textsection}7\)-/ and perhaps /=\(\text{\textsection}\)l\(\text{\textsection}14\)-j\(\text{\textsection}7\)- is sometimes dropped (compare P-26, Palatal-Deletion) but even so it may leave behind an indirect effect since the root-final vowel which precedes it is fronted to /\(\text{\textsection}\)/ by V-Fronting P-50 if it is not already /\(\text{\textsection}\)/.

10.8 Inchoative verbalising suffixes /-\(\text{\textsection}\)Ii\(\text{\textsection}7\)-/-, /-\(\text{\textsection}\)Ii\(\text{\textsection}7\)-/-, /-\(\text{\textsection}\)Ii\(\text{\textsection}7\)-/.

These suffixes, of which /=\(\text{\textsection}\)Ii\(\text{\textsection}7\)-/ is by far the most common, convert nouns (normally NAdj, \(\text{\textsection}4.2\) into intransitive verbs which can be glossed 'to become X' or 'to be X'. These verbalised forms most often indicate processes rather than states, so the term "Inchoative" (above) is used.

An NAdj like /=\(\text{\textsection}\)ung\(\text{\textsection}21\)-l\(\text{\textsection}7\)- 'big' can be described as having nominal, partially verbalised, and fully verbalised forms:

nominal: /=\(\text{\textsection}\)ung\(\text{\textsection}21\)-l\(\text{\textsection}7\)-/ 'the big one[ANA class]';

partially verbalised: /=\(\text{\textsection}\)ung\(\text{\textsection}21\)-l\(\text{\textsection}7\)-/ 'it is big';

fully verbalised: /=\(\text{\textsection}\)ung\(\text{\textsection}21\)-l\(\text{\textsection}7\)-/ 'it became big';

The partially verbalised form shows intransitive pronominal prefix (as opposed to optional NC infl Prefix in nominal function), but has no verbal inflectional suffix. The fully verbalised form has the same intrans./trans. pronominal prefix but also has /=\(\text{\textsection}\)Ii\(\text{\textsection}7\)-/ and an inflectional suffix, here Past\(\text{\textsection}1\) (for Past Punctual Positive).

Derivatives with /=\(\text{\textsection}\)Ii\(\text{\textsection}7\)- have inflections of the A\(\text{\textsection}11\) class (Table 11-1, below). Other Inch suffixes, /-\(\text{\textsection}\)Ii\(\text{\textsection}7\)-/-, /-\(\text{\textsection}\)Ii\(\text{\textsection}7\)-/-, /-\(\text{\textsection}\)Ii\(\text{\textsection}7\)-/- have endings of I\(\text{\textsection}11\) class (Table 11-2) used.

The partially verbalised form shown above is referred to in this grammar as predicative NAdj (\(\text{\textsection}4.2\) and elsewhere). It indicates a quality or State rather than a process. The Inch verbalisation usually (but not always) indicates a process, whether completed or not, less often it too may indicate a state.

The distinction between predicative NAdj and Inch verbalisation
is partly neutralised in negative contexts. Thus, to say ‘it was not big’, we cannot use an unsuffixed predicative NAdj, but must use the appropriate form of Inch /-ma/- even when referring to a state:

/wa:/wa'ri aŋ-wa: run-gal-ma:-/ ‘it was not big’

Here we begin with Neg word (acting as a preverb) /wa:*/cl/, then add the Past Negative form of the Inch verb, changing the pronominal prefix from A series /w-/* to B series /aŋ-/* and using the Amt2 inflectional suffix (see Chapter 8 for the interaction of these affixal slots). For more details on negation, see §15.6, including Table 15-1.

The most productive Inch suffix is /-ma/-, and there are many Inch/Fact pairs like /run-gal-ma/- ‘to become big’ and /run-gal-wa/- ‘to make [it] big’ (for /-wa/- see §10.9). The exx. which can be cited are the dictionary are these: /bujbuj-ma-/ ‘dry out, become dried or withered’; /=bulbar-ma-/ ‘become dark red’; /=bunggawa-ma-/ ‘become dark’; /=nini-ma-/ ‘become soft or fine’ (/ninig/), /=ninyig-ma-/ ‘grow, increase, become big’. Since /-wa-/* is partly neutralised in negative contexts. Thus, not big’, we cannot use an unsuffixed predicative Inch /-ma/ even when taking ANA class subject marker.

It is important to distinguish Inch /-ma/ from transitive verb /-ma/- ‘to get, pick up, take’ (intransitive class A1). The two are distinguishable by respective usage of intransitive vs. trans. pronominal prefixes, and by having different paradigms (Chapter 11).

Despite the relative productivity of /-ma/-, there are some NAdj stems which do not permit it, or in any event prefer another Inch Formation. For a number of stems, the usual Inch is formally the Refl form of Fact /-w-{/a,*/-a/-, hence /=w-{/a,*/-l-*/

/=jada-gi-/ ‘become finished’ < /jadug/
/=milyir-gi-/ ‘become decorated’ < /milyir/
/=nEU,£udhu-ma-! ‘become bird/animal’ < /ngurudhu/ ‘bird/animal’

Since some NAdj, in nominal function, show special affixes or other stem-changes for gender and/or number, we have to ask whether these are carried over into Inch forms, or whether only the simplest changes is possible in Inch forms. For ex., alongside /-ma/-, there is /-w-{/a,*/-l-*/

/=jada-gi-/ ‘become finished’ < /jadug/
/=milyir-gi-/ ‘become decorated’ < /milyir/
/=nEU,£udhu-ma-! ‘become bird/animal’ < /ngurudhu/ ‘bird/animal’

Some stem may be a nonadjectival noun and the meaning is sometimes unpredicative. These can be cited as:

/ba:ngumi-gi-*/ ‘commit theft’ < /bagumid/* ‘thief’
/je:jabar-gi-*/ ‘believe; be true[/MT 23]’ < /jagbar/* ‘true’
/-in-gala-gi-*/ ‘take shortcut’ < /ir gala/* ‘shortcut’
/-min-gal-gi-/ ‘go through crack’ < /mileng/* ‘crack’
/-mileng-gi-/ ‘get bogged in mud’ < /mileng/* ‘mud’
/-yina-gi-*/ ‘sniff from distance’ < /yinuma/* ‘snout’

A similar formation may be detected in /rhu-gul-an-gi-/ ‘eat snack’, cf. bound (defective) noun root /-ru:/* ‘gul-an/* ‘small intestine’ (often eaten as light meal after killing animal); the verb may include /-ru:/* ‘mouth’ (archaic compound initial).

From Hughes we may mention /=nurudhu-ma-*/ ‘become bird/animal’ (MT 17) as an equivalent to Inch /-ma/- already cited. There is also a common form /=milaladi-wi-*/ ‘be become ignorant (of something)’, which is however really a frozen combination involving /milaladi-wi-*/ ‘become bad’ (above, this page).

Actually, in those cases where the surface form of the suffix is /-w-{/a,*/-l-*/ (with no Hardening P-18), there is some ambiguity as to whether the suffix is really the Refl of Fact /-w-{/a,*/-l-*/

> /sa:ra/* ‘bone’

> /yimunY-gi-*/ ‘sniff from distance’ < /yimunY-gi-*/ ‘sniff from distance’

> /adharwa/* ‘be become ignorant (of something)’, which is however really a frozen combination involving /milaladi-wi-*/ ‘become bad’ (above, this page).

> /sa:ra/* ‘bone’

> /yimunY-gi-*/ ‘sniff from distance’ < /yimunY-gi-*/ ‘sniff from distance’

> /adharwa/* ‘be become ignorant (of something)’, which is however really a frozen combination involving /milaladi-wi-*/ ‘become bad’ (above, this page).
or a distinct Inch allomorph / -wla/. The latter is clearly distinguishable in a few exx. involving a preceding stop, which triggers / -ei/ by Hardening P-18. (By contrast, /-wi/- becomes / -ei/ in this environment.) The exx. of / -wi/- are:

/num'ulu-bl-/ 'be/freeze fast' < /num'ulu/ (TTN 8, 23)

There is also a verb /yidur-bi- in MT 7 ("yirdurruwa,") Nonpast form meaning something like 'be on bridge of nose' from /yidur/ 'bridge of nose', but the exact meaning is not clear. It is conceivable that / -wi/- could be thought of as the Refl of /-w, -u/- 'to hit, kill', which is also used with little specific meaning as a compound final in "auxiliary" function (allowing a preceding uninflectable root to be inflected verbally); see §14.4. However, the actual forms shown above do not resemble the usual / -w, -u/- compounds, which are almost all action verbs rather than verbalisations of NAdj.

Our final Inch allomorph is / -dhi/. This is not the surface allomorph whether the preceding root ends in a vowel or in a stop or nasal; n-u-Complex P-1 does not apply in the case of preceding stop or nasal (P-1 applies between prefixes and roots, and between compounded roots, but not between final root and suffixes).

The forms are:

/buga-dhi/- 'become old' < /buga/

/lamumun-dhi/- 'become stubborn' < /lamumun/

/abulu-dhi/- 'become muddy, dirty' < /abulu/ (TTN 2)

Although / -wi/- and / -dhi/- are obviously unproductive, morphologically allophonic, note that there is a degree of semantic patterning ( / -wla/- applying to motion, and / -dhi/- to aging).

Finally, we recall that Fact-Recip / -a-n/- may be used for joint or collective inchoative sense: /bujuu-ga-n/- ' [several] to become withered together' 108.2.1. In the case of / -digi-ga-n/- 'become firm/tight', this form seems to be used even with singular referent.

10.9 Factitive / -w, a/-, / -ga/.

This suffix, like Inch suffixes (§10.8, above), is a verbaliser which is usually added to adjectival noun roots (NAdj). It differs from Inch in that the resulting verb is transitive, and is of the type '[X] make [Y] Adj', i.e., '[X] cause [Y] to be/become Adj.'

The suffix is usually representable as / -w, a/-, automatically becoming / -ga/- after stop or nasal by Hardening P-18. However, there are a number of cases of / -ga/- even after roots not ending in stop or nasal, so we must posit both allomorphs as underlying.

The exx. of underlying / -ga/- are these:

/bandhara-ga/- 'put [it] in middle' < /bandhara/- 'middle'

/gagar-ga/- 'lighten [it]' < /gagar/- 'lighten'

/gullin-ga/- 'steer (boat)' < /gullin/- 'rudder'

/milir-ga/- 'decorate [it]' < /milir/- 'decorated'

/mundu-ga/- 'be too heavy for [him]'< /mundu/-

/ambil-ga/- 'hit [it/him] with thrown object' < /ambil/- 'head'

/ari-kaw/- 'expose, illuminate' < /ari/- 'daytime'

/adawga/- 'put [it] on top' < /adaw/- 'on top'

/awawga/- 'flatten' < /awaw/- 'flat'

/wi-ga/- 'keep alive, save life of' < /wi/-

/wi-ki-ga/- 'isolate, make alone' < /wi-ki/- 'alone'

/fulak-ga/- 'repeat [action] to [him]' < /fulak/- 'two'

/wulur-ga/- 'circumcise' < /wulur/- 'bachelor'

/wurluna-ga/- 'put [it] in middle' < /wurluna/- 'middle'

/wurluna-ga/- 'make [it] rotten' < /wurluna/- 'rottenness'

/yayaga-wa/- 'make [it] thin' < /yayaga/- 'thin'

/yulug-wa/- 'refresh [him]' < /yulug/- 'refreshed'

/yulub-ga/- 'make [it/him] thin' < /yulub/- 'thin'

Items in this list not in dictionary entries for the noun roots are /-bandhara-ga/- (TTN 17), / -wulur-ga/- (TTN 23).

Exx. of surface - /-ga/- which is from / -w, a/- via Hardening P-18 include /bujuu-ga/- 'dry [it] out', /jardu/- 'fin[ish] [it] off' (jardu/), and /numu-ga/- 'make [it] sacred' (numu/), among many others. Surface / -wa/- is seen in /gadhuwa-wa/- 'renew', /garayara-wa/- 'clean', and / marbuy-wa/- 'teach, cause to know', among many others.

The exx. already given show that 'factitive' is not always the correct grammatical function of / -w, a/- or / -ga/.

In some cases the input stem is a nonadjectival noun ('middle', 'rudder', 'head', 'daytime', '[on] top', the resulting verb indicating some activity associated with this concept. Others are these:

/galil-ga/- 'make fun of'

/munY/uwa-wa/- 'renew'

/mulan-ga/- 'be/become muddy, dirty'

/munY/a-ga/- 'be/become firm/tight'

/m9ulur-ur-ga/- 'restrain [fighter]' < /9ulur-ur/- 'quiet'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become old'

/munY/a-dhi/- 'be/become stubborn'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'

/mundu-ga/- 'be/become muddy, dirty'

/mundu-ga/- 'be/become old'

/mundu-ga/- 'be/become firm/tight'
Semantic shifts are seen in /=laharan-ga-/ 'talk to [person] with strong words, chew [him] out' from /=laharan/ 'ready to eat, ripe, cooked'; /=midija-ga-/ 'tease [him]' from /midija/ 'prone to teasing [others]', and the presumed /=mundur-ga-/ 'be too heavy for [him, direct object]' from /mundur/ 'heavy'.

Irregular shift of /-a/ to /-i/ in stem before /=ma-wa-/ is found in /=jarmayarni-ga-/ 'to lengthen [it]' from /jarmayarna/, /=long, tall/; /=am-bij-ga-/ 'alongside /=an-baj-/ 'change [it] from /an-ba/ 'different, other'; and /=woiliin-bij-ga-/ 'make three of [direct object]' from /woiliin-ba/ 'three' (contains /=an-baj/).

See P-90, part (b).

Usually there is a corresponding intransitive verbalisation with Inch /=ma-/ (§10.6), but sometimes the stem avoids /=ma-/ and takes some other Inch suffix, so the parallelism is not perfect. Derivatives including /=ma-a-/ or /=ga-/ take inflectional endings of A₁ class (Table 11-i).

For the use of /=wa-wa/ with kin-term roots, e.g., /=guliwa-wa-/ '[X] to marry [Y]' from /guliwa/ 'spouse', see §5.12. (Such kinship verbs have no intransitive counterparts with /=wa-/>.)

In this section we discuss minor derivational affixes. First, there is a group of derivational prefixes (some acting like compound initials to the extent these two formal categories are distinguishable) meaning roughly 'together'; second, there is a small set of suffixes found in some intrans./trans. stem-pairs.

The 'together' prefixes may be compared with the Comit prefix /=anYji-/ (§10.3). However, the Comit is generally productive, while /=anYji-/ is presently attested only in the noun compound 'twins'; we list it here because of its semantic affinity to the others, and because it might be possible to use it (rarely) with verb stems. The minor derivational suffixes /=-ja-/ and /=-dha-/ are attested in the following forms:

a) /=ja-/ A₁ intransitive verb (antipassive)

/binima-ja-/ 'hide' (< /-binima- la-yi-/ 'hide behind')
/baira-ja-/ 'yearn' (< /-baira- la-yi-/ 'thief')
/garma-ja-/ 'want to go along' (< /-garma-/ 'want to join')
/margi-ja-/ 'be jealous' (< /-margi-/ 'be jealous of')

b) /=dha-/ A₂ intransitive verb (stative)

/=ambi-dha-/ 'be tied up' (< /-radu- la-yi-/ 'tie up')

=c) /=ja-/ A₁ intransitive verb (semantically active)

/=ya-ja-/ 'eat meat' (< /ya/ 'meat')

=d) /=dha-/ A₂ intransitive verb (active)

/=girwu-dha-/ 'jump into water' (< /girwu-/ 'jump')

I am inclined not to group the two /=ja-/ morphemes in (a) and (c), since they differ in inflectional class (Nₐ₁ paradigm vs. A₁ paradigm, see Chapter 11). The morpheme in (c) for one thing, could be represented as /=ya-/ with Hardening P-18 after stop.

Historically, the suffix in (c) might be *-jU- 'to eat' found in some nearby languages (Mara, Anindilyakwa), though it is more likely to be thematising *-dhu- (cf. Ngandi /=gha/ 'eating'). It is used with inflectional paradigms of the Nunggubuyu forms showing similarly, the /=-dha-/ morphemes in (b) and (d) should be distinguished.

On the other hand, /=-ja-/ in (a) and /=-dha-/ in (b) seem to be essentially the same morpheme (functionally), though perhaps some differences can be discerned. The exx. of /=-ja-/ in (a) which are related to a non-inflectional derivable verb (shown on the right) indicate that the /=-ja-/ is an antipassive (cf. "false reflexive" antipassive usage of Refl, §10.5); that is, the direct object of 'hide behind [it]' =/=ma-ja-/ 'want to join [them]', and 'be jealous of [him]'; is grammatically eliminated (though implied) in the /=-ja-/ intransitive form.

The two /=-dha-/ forms in (b) have a simple stative/mediopassive sense. However, since there are few forms to analyse it is difficult to draw firm conclusions.

The forms /=girwu-/ (root form, §12.2) and intransitive verb /=girwu-dha-/ may be recent borrowings from local creole English (though based on neighbouring Aboriginal languages); there are several other Nunggubuyu verbs for this meaning: /=jalhurna-/,

/=/n-albawalaj-/

We should also mention /=num-gala-dha-/ which can be trans., with Nₐ₁ inflections meaning "be/go up on platform (or in tree)" of type (b) above, or trans. with A₁ inflection meaning "put [him] up on platform (or in tree)". Here both trans. and trans. forms have /=dha-/ the alternation of intrs. Nₐ₁ and trans. A₁ paradigm is common for verbs of stance (§11.8). The verbs are from noun /=num-gala/ 'platform; place to sit up in tree'.

Intransitives and indicates the togetherness of the direct object with other implied (but not grammatical) objects. (See discussion of /=anYji-/ in §10.3).
The problem posed here is the combinability of various derivational prefixes and suffixes discussed in preceding sections, and the logic of such combinations. For example, is the Benef-Recip combination semantically the benefactive of a reciprocal, or the reciprocal of a benefactive?

Many cases are those involving two derivational suffixes, since in this situation the logical ordering always matches the linear order of affixes.

Leaving aside combinations involving Fact and Inch, the suffix combinations attested are these:

Verbal-Causation:

- Verb-Caus-Recip /-maga-/-jga-/ 'cause hands to be [held] out straight'
- Verb-Caus-Recip /-mlih-/-jga-/ 'cause [them] to shine together' /-mliha-/-
- Verb-Caus-Recip /-yaba-/-jga-/ 'cause [him] to enter vehicle' (cf. /-yaba-/-

Verbal-Recip-Causation:

- Verb-Refl-Caus /-ngari/-jga-/ 'cause to die' (see next section, below)
- Verb-Refl-Caus /-yapi/-jga-/ 'put [it] in' 50.6.1, 52.5.7rdp, etc.
- Verb-Refl-Caus /-nawi/-jga-/ 'cause each other to die' 47.17, 36dp (includes Refl before Caus, see preceding list)
- Verb-Refl-Caus /-yami/-jga-/ 'say to oneself' 47.4, 14

It should be noted that these combinations are not very common; the above list is probably exhaustive for my data, and most of these forms are not attested in the texts. The combination Verb-Caus has the characteristic that the Refl suffix has no surface phonological effect; the assumption that Refl is there is based on meaning (and on the fact that Caus is generally added to intrans. inputs). The three Refl-Caus combinations exemplified involve high-frequency, probably lexicalised Refl forms.

Verbal-Recip-Causation:

- Verb-Caus-Recip /-maga/-jga-/ 'cause hands to be [held] out straight'
- Verb-Caus-Recip /-mlih/-jga-/ 'cause [them] to shine together' /-mliha-/
- Verb-Caus-Recip /-yaba/-jga-/ 'cause [him] to enter vehicle' (cf. /-yaba-/

Verbal-Recip-Causation:

- Verb-Refl-Caus /-ngari/-jga-/ 'cause to die' (see next section, below)
- Verb-Refl-Caus /-yapi/-jga-/ 'put [it] in' 50.6.1, 52.5.7rdp, etc.
- Verb-Refl-Caus /-nawi/-jga-/ 'cause each other to die' 47.17, 36dp (includes Refl before Caus, see preceding list)
- Verb-Refl-Caus /-yami/-jga-/ 'say to oneself' 47.4, 14

It should be noted that these combinations are not very common; the above list is probably exhaustive for my data, and most of these forms are not attested in the texts. The combination Verb-Caus has the characteristic that the Refl suffix has no surface phonological effect; the assumption that Refl is there is based on meaning (and on the fact that Caus is generally added to intrans. inputs). The three Refl-Caus combinations exemplified involve high-frequency, probably lexicalised Refl forms.

The Benef exx. show that the Mult prefix is part of an inner derivational layer which pays no attention to the Benef morpheme (or the change in object markers which Benef requires). Although the exx. with /-a-gara/- /-a-gara/- have an attestation of /-a-gara/- with Benef-Mult the Mult allomorph attested many times). However, both Benef and Comit are attested with following Mult affix. With Benef-Mult the Mult allomorph attested is mostly /-a-gara-/, with Comit the only attested form is with /-n=ara-/.

An isolated example /-wlu-dhagr=ja-/ 'to say to oneself' 47.4, 14

We begin with combinations involving Mult.

**Benef-Mult-Verb with /-wlu-/**
- Verb-Mult-Verb /-a-gara-/-bura-/- 'put [them] all down for' 59.2.7
- Verb-Mult-Verb /-a-gara-/-lali/- 'pick up all' TNT 24 (/-lali-/
- Verb-Mult-Verb /-a-gara-/-um-ja/- 'suck [it] all for' 139.3, 9
- Verb-Mult-Verb /-a-gara-yagi/- 'take [them] all away from' MT 5
- Verb-Mult-Verb /-a-gara-yuri/- 'take [them] all away from' 40.9.2, 4
- Verb-Mult-Verb /-a-gara-yuri/- 'make lots of [then] for' 50.1, 1ff.

**Benef-Mult-Verb with /-n=ara-/**
- Verb-Mult-Verb /-a=n=ara-/-ja/- 'go for [e.g., honey]' (/-ya-/) [elicited]
- Verb-Mult-Verb /-a=n=ara-/-wali-/- 'all follow each other around' (/-ya-/) [elicited]

Similarly, the Benef-Mult-Verb form with /-n=araG-/ shows a secondary Benef overlay on the underlying Mult intransitive /-maraG-/- which is the characteristic Mult prefix form for human intransitive subject. The sequence Comit-Mult is rare, and the one ex. shown was obtained by direct elicitation. The multiplicity indicated by /-n=araG-/ is that of the intrans. subject, as it would be without Comit. We conclude overall that, as with suffixes, derivational layering for prefix-suffix combinations coincides with linear order (moving away from the root).

**Conclusions**

Inch forms do not regularly take further suffixal derivations. It is conceivable that the combination NAdj-Inch-Recip could occur with Recip meaning 'together', but this is not attested, and we have an attestation of /-a,n=araG-/- (Fact-Recip) in this sense in the last list above (with /-bura-/-). We do not see to get the sequence NAdj-Inch-Comit, since this would mean 'cause [it] to become [adjective]', which is expressed more simply by NAdj-Fact-.

We now look at combinations of two prefixes. We have already mentioned that Benef and Comit seem to occur in the same slot, and no combinations of the two are attested (though each is separately attested many times). However, both Benef and Comit are attested with following Mult affix. With Benef-Mult the Mult allomorph attested is mostly /-a-gara-/, with Comit the only attested form is with /-n=ara-/.
Let us now look at combinations involving Comit prefix (which can precede Multi) and some derivational suffix:

Mult-Verb-Recip

\(/=\text{Recip}=/\text{Verb}=/\text{Multi}\)
Benef /-a-jiga=lharma-/ 46.1.3 '[X] to follow fire of [Y], [X] to track [Y] by following his bushfires', then Recip of Benef /-a-jiga=lharma-nYji-/ '[X and Y] to follow each other's fires, to find each other in the bush by heading for each other's fires' 46.1.1.

However, with Benef-Verb-Refl the usual situation is that Refl is the inner layer and Benef the outer; hence we end up with a surface transitive verb with transitive pronominal prefix. The first three exx. listed in the relevant series (preceding page) are of the type just described; thus /-a=julubi-/ 'to hide' (intrans. Refl), Benef /-a=julubi=-' to hide from [him]' (with transitive pronominal suffix). The apparent counterex., if correctly interpreted, is /-a=ba~i=-' to tap sticks for oneself', a surface transitive (Refl of Benef, not Benef of Refl, semantically).

Our conclusion is that two consecutive prefixes, or two suffixes, are derivationally layered according to their relative distance from the verb root; when there is a derivational prefix and suffix, to the extent that we can tell, Mult and Comit prefixes are added after derivational suffixes; Benef is added before Recip suffix and rarely before Refl, and is added in most cases after Refl.

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Chapter 11

Verbal inflectional suffixes

11.1 General.

The role of inflectional suffixes within the larger system of verbal categories was discussed in Chapter 8, see especially Table 8-2. As noted there, the suffixal categories are not always glossable in isolation since they combine with the choice between A and B pronominal prefix series and other grammatical markers to produce the tense-aspect-mood-negativity forms. The suffixal distinctions are referred to as:

Past1 Nonpast1 Evitative
Past2 Nonpast2
Past3 Nonpast3

In this chapter we are concerned only with the formal analysis of suffixal paradigms for the various verb classes. We are not here concerned with semantic patterns; however, we may mention that Past1 and Nonpast1 share a (partial) association with punctual aspect, and likewise show strong formal resemblances (/-nG/ and /-nY/ being the only suffix allomorphs in both categories, §11.7).

The paradigms also show the forms of basic derivations: Refl (§10.5), Recip (§10.6), and Caus (§10.7).

11.2 Verb classes.

A large number of inflectional classes can be distinguished on the basis of suffixal forms, though sometimes two classes differ only in one or two categories. There are also a number of verbs, mostly high-frequency monosyllabic roots, which have special paradigms.

It is convenient to distinguish some classes on the basis of a characteristic augment used in a subset of inflected forms. For them, the augment provides the name of the class (N class, YA class, RA class), though in some cases a single augment forms more than one class which therefore must be differentiated by subscripts (N\A1, N\A2, N\A3; MA1, MA2).

Aside from the augment classes, and the mostly monosyllabic-root special paradigms, we distinguish a number of classes each characterised by a particular stem-final vowel (/a/, /i/, /u/). With final
TABLE 11-1
Classes with Stem-Final /a/

<table>
<thead>
<tr>
<th></th>
<th>A₁</th>
<th>A₂</th>
<th>A₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past₁</td>
<td>Xa-ⁿ³</td>
<td>X₁-n²</td>
<td>X₁-n³</td>
</tr>
<tr>
<td>Past₂</td>
<td>X₁-ⁿ¹</td>
<td>X₁-n²</td>
<td>X₁-n³</td>
</tr>
<tr>
<td>Nonpast₁</td>
<td>Xₙ-ⁿ³</td>
<td>Xₙ-n²</td>
<td>Xₙ-n³</td>
</tr>
<tr>
<td>Nonpast₂</td>
<td>Xₙ-na</td>
<td>X₁-ⁿ¹</td>
<td>X₁-n³</td>
</tr>
<tr>
<td>Evit</td>
<td>X₁-ⁿ'</td>
<td>X₁-ⁿ²</td>
<td>X₁-ⁿ³</td>
</tr>
<tr>
<td>Refl</td>
<td>X₁-ⁿan</td>
<td>X₁-ⁿ²</td>
<td>X₁-ⁿ³</td>
</tr>
<tr>
<td>Recip</td>
<td>X₁-ⁿ'ji-</td>
<td>X₁-ⁿ²ji-</td>
<td>X₁-ⁿ³ji-</td>
</tr>
<tr>
<td>Caus</td>
<td>X₁-jga-</td>
<td>X₁-jga-</td>
<td>X₁-jga-</td>
</tr>
</tbody>
</table>

Note: vowel length not always heard in Past₂ and Nonpast₂.

/a/ vowel we distinguish A₁, A₂, and A₃ classes (Table 11-1), with another verb, /=lha-/'to chop' (not /=lha-/'to stand') having a closely related paradigm. For final /a/ vowel we have just two classes, I₁ and I₂ (Table 11-2), differing in only one form (Nonpast₂). For final /u/ the number of stems is tiny, and the "classes" shown in Table 11-3, below, contain just one or two roots apiece. (In the tables, /Xa-/, /X₁/, etc., are stems.)

Even aside from different stem-final vowels, the classes with /a/ all differ in suffixation from the classes in /i/ (A₁ resembles I₂ but differs in the Past₂). However, U₁ is nearly identical in suffixation to A₁, and U₂ could likewise be merged with I₂.

408 §11.2 Tables 11-1, 11-2

TABLE 11-2
Classes with Stem-Final /i/

<table>
<thead>
<tr>
<th></th>
<th>I₁</th>
<th>I₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past₁</td>
<td>X₁-ⁿ²</td>
<td>X₁-ⁿ²</td>
</tr>
<tr>
<td>Past₂</td>
<td>X₁-ⁿ₁ [P-45]</td>
<td>X₁-ⁿ₁ [P-45]</td>
</tr>
<tr>
<td>Nonpast₁</td>
<td>X₁-ⁿ²</td>
<td>Xₙ-ⁿ²</td>
</tr>
<tr>
<td>Nonpast₂</td>
<td>X₁-na [P-45]</td>
<td>X₁-na [P-45]</td>
</tr>
<tr>
<td>Evit</td>
<td>X₁-ⁿ'</td>
<td>X₁-ⁿ'</td>
</tr>
<tr>
<td>Refl</td>
<td>X₁-ⁿ'</td>
<td>X₁-ⁿ'</td>
</tr>
<tr>
<td>Recip</td>
<td>X₁-ⁿ'ji-</td>
<td>X₁-ⁿ'ji-</td>
</tr>
<tr>
<td>Caus</td>
<td>X₁-jga-</td>
<td>X₁-jga-</td>
</tr>
</tbody>
</table>

Note: vowel length not always heard in Past₂ and Nonpast₂.

TABLE 11-3
Classes with Stem-Final /u/

<table>
<thead>
<tr>
<th></th>
<th>U₁</th>
<th>U₂</th>
<th>U₃</th>
<th>U₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past₁</td>
<td>Xu-ⁿ²</td>
<td>Xu-ⁿ²</td>
<td>X₁-ⁿ²</td>
<td>Xa-ⁿ²</td>
</tr>
<tr>
<td>Past₂</td>
<td>Xu-ⁿ¹</td>
<td>Xu-ⁿ²</td>
<td>X₁-ⁿ²</td>
<td></td>
</tr>
<tr>
<td>Nonpast₁</td>
<td>Xₙ-ⁿ²</td>
<td>Xₙ-ⁿ²</td>
<td>Xₙ-ⁿ²</td>
<td>Xₙ-ⁿ²</td>
</tr>
<tr>
<td>Nonpast₂</td>
<td>Xₙ-na</td>
<td>Xₙ-na</td>
<td>Xₙ-na</td>
<td></td>
</tr>
<tr>
<td>Evit</td>
<td>X₁-ⁿ²un</td>
<td>X₁-ⁿ²un</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refl</td>
<td>X₁-ⁿ²</td>
<td>X₁-ⁿ²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recip</td>
<td>X₁-ⁿ'ji-</td>
<td>X₁-ⁿ'ji-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caus</td>
<td>X₁-jga-</td>
<td>X₁-jga-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: For YA class, forms in X₁-ⁿ² may have variants in X₁-wa-.

TABLE 11-4
Augment Classes: N and YA

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>YA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past₁</td>
<td>Xa-ⁿ²</td>
<td>/=xa/- 'to spear'</td>
</tr>
<tr>
<td>Past₂</td>
<td>Xa-ⁿ₁</td>
<td>/=xa-ⁿ²</td>
</tr>
<tr>
<td>Nonpast₁</td>
<td>Xₙ-ⁿ²</td>
<td>/=xa-ⁿ²</td>
</tr>
<tr>
<td>Nonpast₂</td>
<td>Xₙ-na</td>
<td>/=xa-ⁿ²</td>
</tr>
<tr>
<td>Evit</td>
<td>X₁-ⁿ²</td>
<td>/=xa-ⁿ²</td>
</tr>
<tr>
<td>Refl</td>
<td>X₁-ⁿ²</td>
<td>/=xa-ⁿ²</td>
</tr>
<tr>
<td>Recip</td>
<td>X₁-ⁿ'ji-</td>
<td>/=xa-ⁿ²</td>
</tr>
<tr>
<td>Caus</td>
<td>X₁-jga-</td>
<td>/=xa-ⁿ²</td>
</tr>
</tbody>
</table>

Note: For YA class, forms in X₁-ⁿ² may have variants in X₁-wa-.

Tables 11-3, 11-4 §11.2 409
TABLE 11-5
Classes with Augment -\(\text{ngA}\) -\(\text{ngA2}\) -\(\text{ngA3}\) -\(\text{ngA4}\)
Past\(_1\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\)
Past\(_2\) Xi-x\(\text{ngA}\) Xi-x\(\text{ngA}\) Xi-x\(\text{ngA}\) Xi-x\(\text{ngA}\)
Nonpast\(_1\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\)
Nonpast\(_2\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\) Xa-x\(\text{ngA}\)
Evit Xa-x Xa-x Xa-x Xa-x
Refl --- --- --- ---
Recip Xi-x\(\text{ngA}\) Xi-x\(\text{ngA}\) Xi-x\(\text{ngA}\) Xi-x\(\text{ngA}\)
Caus --- --- --- ---

Note: \(\text{V}\) represents underlying root-final vowel.
Roots: \(\text{NgA}\) /\(\text{a-ha-}\) 'to stand', /\(\text{a-yi-}\) 'to sleep', and /\(\text{a-bilya-}\) 'to tilt' (cf. rule P-22);
\(\text{NgA2}\) /\(\text{w2a-}\) 'to* bite', /\(\text{na-}\) 'to burn[trans.],
\(\text{NgA3}\) /\(\text{yu-}\) 'to carve out, produce';
\(\text{NgA4}\) /\(\text{u-}\) 'to hit' and most of
its compounds

§11.2 Tables 11-5, 11-6

TABLE 11-6
Classes with Augments -\(\text{ma}\) -\(\text{ra}\)
MA\(_1\) MA\(_2\) RA
Past\(_1\) Xa-x\(\text{ma}\) Xa-x\(\text{ma}\) Xa-x\(\text{ma}\)
Past\(_2\) Xi-x\(\text{ma}\) Xi-x\(\text{ma}\) Xi-x\(\text{ma}\)
Nonpast\(_1\) Xa-x\(\text{ma}\) Xa-x\(\text{ma}\) Xa-x\(\text{ma}\)
Nonpast\(_2\) Xa-x\(\text{ma}\) Xa-x\(\text{ma}\) Xa-x\(\text{ma}\)
Evit Xa-x Xa-x Xa-x
Refl --- --- --- ---
Recip Xi-x\(\text{ra}\) Xi-x\(\text{ra}\) Xi-x\(\text{ra}\)
Caus --- --- --- ---

Note: MA\(_1\) consists of /\(\text{ma-}\) 'to hit' and most of
its compounds including "auxiliary" compounds,
while MA\(_2\) consists of a few of its compounds;
simple /\(\text{ma-}\) uses Recip as Refl.

§11.2 Tables 11-5, 11-6

TABLE 11-7
Verbs with Nonpast\(_2\) -\(\text{yi}\)
\(\text{Past}\(_1\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\)
\(\text{Past}\(_2\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\)
\(\text{Nonpast}\(_1\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\)
\(\text{Nonpast}\(_2\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\)
\(\text{Evit} /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\)
\(\text{Refl} /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\)
\(\text{Recip} /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\) /\(\text{ma-}\)
\(\text{Caus} --- --- --- ---

Note: V represents underlying root-final vowel.
Roots: /\(\text{a-ha-}\) 'to stand', /\(\text{a-yi-}\) 'to sleep', and /\(\text{a-bilya-}\) 'to tilt' (cf. rule P-22);
\(\text{w2a-}\) 'to bite', /\(\text{na-}\) 'to burn[trans.],
\(\text{yu-}\) 'to carve out, produce';
\(\text{u-}\) 'to hit' and most of
its compounds

§11.2 Tables 11-7, 11-8

TABLE 11-8
Suppletive /\(\text{ma}\) /\(\text{ma}\) 'to go'
\(\text{Past}\(_1\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\)
\(\text{Past}\(_2\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\)
\(\text{Nonpast}\(_1\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\)
\(\text{Nonpast}\(_2\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\)
\(\text{Evit} /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\) /\(\text{ma}\)
\(\text{Refl} --- --- --- ---
\(\text{Recip} --- --- --- ---
\(\text{Caus} (\text{ma}\text{g}\) 'to transport')

§11.2 Tables 11-7, 11-8
In the augmented classes, the forms which actually have the augment have the structure /=ROOT-Augment-Suffix/ vs. the remaining forms with just /=ROOT-Suffix/. It is possible to characterise such paradigms as composite, with the augmented subsystem showing final suffixes characteristic of one of the productive classes, so that the augment itself can be said to produce a (derived) stem of the relevant larger class. The unaugmented forms of the augmented classes may likewise be partially characterisable in terms of one of the larger classes.

The augmentes seem to take suffixes of the larger classes as follows:
- /-y/ and variant /-(w)a-/ take suffixes of A1
- /-a/- takes suffixes of A1
- /-ma/- takes suffixes of A1
- /-ra/- takes suffixes of A2

In addition, forms with augment /-N/- (nasal segment realised as /-n/- in relevant forms) contain suffixes like those of the verbs in Table 11-7 with some phonological changes: for /Xa-n-d1/- vs. /Xv-nl/- in Table 11-7 see rule P-53, and for /y/- alternating with /j/- see P-18.

Classification of the residual (unaugmented) subsystems of these augmented classes is most feasible when the unaugmented forms include Past2 and Nonpast2, which are overall the most variable (thus most diagnostically useful) suffix categories. This is the case with MA1, NA2, RA, and (Past2 only) MA3/MA4. However, the unaugmented forms of these classes do not fit into any of the fully unaugmented paradigms, and if we look at all of the unaugmented forms of MA/MA we get the same result. On the other hand, unaugmented Past2 /-ng/ and Nonpast2 /-ng/ vowel lengthening for MA1, MA2, and RA classes suggest that these classes are related to each other (if not to any of the larger classes).

11.3 Identification of suffix allomorphs.
For Past1 the suffix forms (excluding augments) are /-y/ and /-e/; the former occurring in the larger classes (including all unaugmented classes ending in /-a/ or /-I/). V-Fronting P-50 applies in some but not all cases before /-y/, changing /a/ or /u/ to /I/ before the laminosalveolar nasal; for example, the rule applies in A2 to A4 and to U3, but not to A1 or to U1 and U2. Before /-y/ a high vowel is lowered to /a/ in all classes by V-Ablaut P-38, part b.
Nonpast1, which like Past1 is associated with partial accent, has the same allomorphs /-y/ and /-e/ with the same phonological characteristics. However, several classes have different allomorphs for Past1 and Nonpast1, either having Past1 /-y/ and Nonpast1 /-e/ or the opposite. Allomorph /-y/ is more common for Nonpast1 than for Past1 in several important classes have Past1 /-y/ and Nonpast2 /-e/ (A1, A2, A3, A4, U1, U2). The opposite is seen with MA1 and MA4. Past2 = Nonpast /-y/- is found in the important I1 class and also in U2 while Past2 = Nonpast /-e/- occurs in U4, some augmented forms, and some paradigms in Table 11-7.

For Past2 and Nonpast2 we begin by noting that some forms seem to involve lengthening of final stem vowel (Past2 of A1, U1, U2 and Nonpast2 of A2, N3A1, and RA). In these cases the surface long vowel which ends the word has the quality of the underlying stem-final vowel, except for the Nonpast2 of A2 where we get /X1/- for stem /Xa/-/.

Other mild phonological difficulties with Past2 forms are seen with N3A1 and N3A2 (Table 11-5), where we take the basic form of the suffix as /-y/-, with /Xa/- becoming /X1/- by V-Fronting P-51 and then iy-Contraction P-15 in N3A1 and sometimes in N3A2. As for /Xa-n-d1/, Past2 of the N class (Table 11-8) we have suggested that this is /Xa-N-nl/- with /-nl/- dissimilating from the preceding nasal by Denasalisation P-53. This leads us to the following array of paired Past2 and Nonpast2 allomorphs.

These Past2/Nonpast2 pairings are highly significant in identifying the inflectional classes, though some classes (I1 and I2) are differentiated only by other suffix categories. The associated Nonpast2 allomorphs /-y/- and /-I/ for A1 and A2, respectively, are synchronically distinct but historically identical. The same is true for Nonpast2 variants /-y/ and /-I/, while Past2 /-y/ in other classes is probably also from /-y/.

Note that some forms, like /-y/ and /-I/, can be both Past2 and Nonpast2 allomorphs, though not within a single class. Note also that, whereas Past1 and Nonpast1 suffixes always consist of a nasal consonant, all Past2 and Nonpast2 allomorphs end in vowel or semivowel. (In the above formulae, /-y/- should be thought of as representing a short vowel homorganic to the stem-final vowel, either /a/- or /I/-.)

The Nonpast2 is always /X1/- for unaugmented roots ending in /a/- or /I/-, and the same form occurs for some roots ending in /u/.

It is possible to identify the suffix as /-y/- with obligatory V-Fronting P-50 and iy-Contraction P-15, though the analysis would be more clearly supported if the semivowel remained on the surface in at least some forms (as does /-y/- for Past2). Most verbs with stem-final /-u/, however, have Nonpast2 /Xu/- with long vowel (we make the usual caveat here about the unreliable phonetic realisation of length), and we therefore recognise /-y/- as a Nonpast2 allomorph which usually occurs after stem-final /-u/ (but also seems to occur with /y/- 'to give', Table 11-7).
The remaining inflectional form is the Evitative, which with the basic unaugmented classes is either /=ya-/, /=ya-n/, and /=ya-~/, (Past), /=ya:/ (Past), and /=ya:/ (Past), in augmented classes, if the Evit suffix follows the augment the Evit allomorph is that of the class which the augment itself is associated with, thus /=ya-~/ with YA, /=ya-~/ with YA, and /=ya-~/ with YA, but /=ya-~/ with RA. There is also an Evit allomorph /=ya:/ (Tables 11-5 and -7) and another one /=ya-/ (Table 11-5 and perhaps -8 depending on segmentation).  


In most cases it is fairly easy to identify the (underlying) final vowel of stems of a given class, with surface variation in one or two forms explained by some phonological rule. However, there are a few cases where the decision is nontrivial. 

Examination of Table 11-1 shows that classes A and A actually have stem /=ya:/ (i.e., ending in /a/) in a few forms: Past2, Nonpast2, Evit, and for A, only Nonpast2, 2. In addition, the majority of forms (including derivations) actually show /=ya:/ or /=ya:/, however, the /=ya:/- forms can all be accounted for by V-Fronting P-50 (Past2, Nonpast2, Recip, Caus), CoV-V-Contraction P-49 (Ref1, for A also Nonpast2). The /=ya-/ forms, on the other hand, cannot all be explained away (though the Nonpast2, /=ya:/- would be expected anyway because of V-Ablaut P-36, part b). The Evit form /=ya-~/ in particular is diagnostic since in other classes /=y/- or /=ya-~/, occurring before Evit allomorph /=ya-~/, in the case of A, however, the root /=ya:/- 'to sleep' (augmented /=ya:/-), is probably in a synchronically ambivalent position. The major rule of Denasalisation P-23 implies that the augment in the second variant and is compatible with the first variant. It is clear that there is no verb with this meaning, and the verb glossed /=ya:/- is used for all directions of motion (perhaps with a demonstrative adverb). 

The forms of /=ya:/- are given in Table 11-8, and it is clear that these two basic roots are involved. One is /=ya:/- with what appears to be A suffix (Past3, Nonpast3, Evit). The other root is seen in Past2, /=ya:/-gi, Evit /=ya:/-gan, Nonpast3, /=ya:/-i, and also in the (synchronously) somewhat dissociated Causative /=yi/-'to transport'. 

The phonology of the second set of forms is problematic. It is possible to think of /=ya:/- as /=ya:/- and /=ya:/- as /=ya:/-. However, it is doubtful that speakers have any clear internal analysis of these 'go' forms in view of the small number of /=ya:/- forms and the absence of close parallels for this phonological interpretation. The augment /=ya:/- could be taken as having augment /=ya:/- (with A suffix) in this way, but again the segmentation is synchronically dubious. We have set up an ad hoc rule to lengthen /=ya:/- to /=ya:/- (P-45, part a), Causative /=yari/- may once have had a similar structure but is now rather frozen. 

11.5 YA class augmentations. 

The augment in the YA class (Table 11-4) seems to be /=ya:/ in Past3 (in augmented variant) and Nonpast3. In Past2, unaugmented /=ya:/- is quite a bit more common in my data than /=ya:/- /=ya:/-, though both occur in texts. 

In a number of other forms, such as Nonpast2, /=ya:/-va/-, the augment is realized lengthening of the short /a/ to /a:/, sometimes with a variant pronunciation like /=ya:/-/ with an extra vocalic prominence. The best representation for the augment here is /=ya:/- because of the tendency of /w/ to be dropped in this position (cf. rule P-9 in particular). Moreover, in the Past2 we have either /=ya:/-ni/ or /=ya:/-i/, where /=ya:/- is clearly the augment in the second variant and is compatible with the first variant. 

In the Nonpast3 we have indicated that /=ya:/-ni/ and /=ya:/-i/ both occur. We can think of this as a choice between /=ya:/- and /=ya:/- augmentations, each followed by /-y/-, but it is also possible to think of /=ya:/- as a low-level variant of /=ya:/- . 

The inflectional endings following /=ya:/- augment, as noted earlier, are basically those of the A class, but Past2 variant /=ya:/-ni/ (which is more common than /=ya:/-ni/) is an exception, since Past2, /=ya:/-ni/ occurs normally with i and u verbs (and a few monosyllable roots) rather than with the main A verb classes. 

11.6 Suppletive verbs: 'to come', 'to go'. 

A root /=ya:/- 'to come' is used only in future forms (involving Nonpast3 or Nonpast3) in imperative sense (§8.5). In other senses there is no verb with this meaning, and the verb glossed 'to go' is used for all directions of motion (perhaps with a demonstrative adverb). 

The forms of 'to go' are given in Table 11-8, and it is clear that two basic roots are involved. One is /=ya:/- with what appears to be A ending (Past3, Nonpast3, Evit). The other root is seen in Past2, /=ya:/-gi, Evit /=ya:/-gan, Nonpast3, /=ya:/-i, and also in the (synchronously) somewhat dissociated Causative /=ya:/-gi/-'to transport'. 

The phonology of the second set of forms is problematic. It is possible to think of /=ya:/- as /=ya:/- and /=ya:/- as /=ya:/-. However, it is doubtful that speakers have any clear internal analysis of these 'go' forms in view of the small number of /=ya:/- forms and the absence of close parallels for this phonological interpretation. The augment /=ya:/- could be taken as having augment /=ya:/- (with A suffix) in this way, but again the segmentation is synchronically dubious. We have set up an ad hoc rule to lengthen /=ya:/- to /=ya:/- (P-45, part a), Causative /=yari/- may once have had a similar structure but is now rather frozen.

P-50
11.7 Aspectual subsystems in the inflectional affixation.

It is perhaps worth making explicit that some of the paradigms seem to be divisible into a "punctual" subsystem and a "continuous" subsystem. We have already mentioned that Past l and Nonpastl, which both have punctual sense (except where aspect is neutralised, as with Nonpastl in present negative sense), are expressed by suffixes /-n/ or /-n/ consisting of such a nasal, while the other categories (except Evit, which is clearly outside the aspectual system) end in vowel or (occasionally) semivowel /-y/. However, we are here concerned with another piece of evidence, this time the distribution of augments.

In Table 11-5, we make the curious observation that the presence/absence of augment /-mə-/ in $N_{A1}/N_{A2}$ is exactly the opposite of that for $N_{A3}/N_{A4}$, at least in the six basic inflectional categories. On this basis, we can group the six categories into two subsystems:

- "punctual" subsystem
  - Pastl
  - Nonpastl
  - Evit

(Note that Nonpastl and Evit never have a specific aspectual sense, hence the quotations marks around "punctual" and "continuous").

The same partition occurs in the choice of two suppletive roots for 'to go' (Table 11-8), with /-wəmə-/ ("punctual") vs. /-wa(1)/ ("continuous").

This partition may occur in the N class (Table 11-4), since /-W/ augment is clearly present in Pastl, Nonpastl, and Evit, is clearly absent in Nonpastl, and is arguably absent in Pastl and Nonpastl (where, however, one could conceivably posit /-W/ which is then zeroed before another nasal consonant).

In the YA class (Table 11-4), the clear cases of augment /-ya-/ are in Pastl and Nonpastl, with possible optional occurrence also in Nonpastl (assuming that /-a /= is a low-level variant derived from /-a /=). Clear cases of augment /-wa-/ are in the three "continuous" inflected forms.

A slightly different but related pattern is seen with $M_{A3}/M_{A2}$ (Table 11-6), where augment /-wa-/ occurs in Nonpastl and Evit, while no augment occurs in the other four basic inflections. A rather different pattern occurs in the RA class (same table), where augment /-ra-/ occurs in the three "punctual" forms, but is also obligatory in the Evit and occurs in one variant of Pastl.

Overall, then, there is a repeatedly manifested bifurcation of the six basic inflected forms expressed through stem suppletion and distribution of augment, though in a couple of augment classes a small amount of regrouping is found.

The most puzzling detail is the association of Nonpastl (basically, future negative) with the "punctual" subsystem. While I have no explanation, it might be mentioned that Nonpastl (rather than Nonpastl) is the form used in present negative verbs, so that there seems to be an association of punctual with negative in the nonpast verbal system.

§11.8 Assignment of verbs to inflectional classes.

Some associations between inflectional classes and transitivity types are trivial in that they have to do with the fact that some derivational suffixes are inflected in particular classes: Refl /-l/ is T1, Recip /-n/ /-j1/ is T2, while Cause /-jgə-/ /-inə-/ is T3.

Leaving aside such a nasal, while the other categories (except Evit, which is clearly outside the aspectual system) end in vowel or (occasionally) semivowel /-y/. However, we are here concerned with another piece of evidence, this time the distribution of augments.

In the remainder of this section we give general statistics about inflectional class composition, along with lists of stems in the smaller classes.

The large unaugmented classes are the following, shown with the number of stems (excluding obviously derived ones) up to p. 120 of the dictionary:

- $A_1$ (78) $A_2$ (122) $A_3$ (13) $I_2$ (42) $I_3$ (10)

These figures indicate that $A_2$ is the predominant class, especially since no high-frequency derivational suffixes feed into this class. Moreover, $A_1$ is closely associated with $A_2$ and is basically the variant of $A_2$ used with roots ending in /...ma-/ and and sometimes /...ba-/.

The $A_1$ statistic is perhaps misleading, since many of these exx., while not transparently derived, may be (etymological) derivatives involving a suffix like /-ma-/ or /-ya-/

Indeed, the 78 exx. of $A_1$ up to p. 120 consist predominantly of stems ending in /...ga-/ /...wa-/ and /...ma-/ which could be analysed as having a suffix /-gə-/ or /-wə-/.

There are also some stems for which no derivational analysis of this sort is possible, e.g., /-แยกข้า-/ 'to dance', /-ญา-/ 'to put in', and /-ญา-/ 'to sing', /-call/name'.

For the most part, $A_2$ stems are unanalyzable, even though this class consists largely of stems which historically contain a kind of thematising augment (cf. Ngandi augment /-dhu-/). In a small percentage of cases, vestiges of this segmentation can still be found in Nunggubuyu. One type of example involves root forms (§12.2) like /-กิ้น=/ associated with $A_2$ verb /-ญา-/ 'to go past'.

Another vestige is the occurrence for a few such stems of a variant form (often with specialised meaning) which is historically (but not synchronically) a reduplication, e.g., /-แกววลำ-/ 'to sink, drown' and /-แกววลำ-/ 'to slow down'. (The regular reduplication of /-แกววลำ-/ by rule P-2 is /-แกววลำ-แกววลำ-/.)

The vast majority of $A_2$ stems end in a (nominal) coronal
consonant plus /a/, hence /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-/ /-³ha-/ /-³a-/ /-³da-/ /-³a-
In the N\(A_1\) class, the stems which have transitive (causative) 
A\(2\) counterparts are these: /bura-/ , /burda-/ , /halwula-/ , 
/num"gala-bu-/ (cf. noun /numgala/), /numulwa-/ , /murulwa-/ , 
/murunda-/ , /tur-/ , /abn"burda-/ , /galai~lda-/ , /galada-/ , 
/kgabdahda-/ , /karambailadha-/ , /ya~da/-, and 
/yali~/ju-. We have noted before that /wa~lu-/ 'to lie across, 
be broadside' has I\(1\) /wa~ladh/ as its transitive counterpart. 
A\(2\) /margiz~a-/ 'to be jealous of' is the transitive counterpart of 
N\(A_1\) /margiz~a-/ 'to be jealous', though here the transitive 
is not of the causative variety; cf. also A\(2\) /yama-/ 'to hide 
behind (tree, etc.)' and transitive N\(A_1\) /binima-/ 'to hide'. 
The unproductive element /-ja-/ or /-da-/ seen in some of the 
N\(A_1\) stems is also present in /dara-/ 'to lust for' (cf. noun 
/darrawa/ 'thief'), /hagardha-/ 'to form lines' (cf. compound 
initial /hagard-/), /madhda-/ 'to be tied up' (irregular 
Refl of M\(A_1\) /gad-bu-/ 'to tie up'), and /num"gala-bu-/ 'to 
up tree', all of which are N\(A_1\) (though the last of these also has 
a transitive A\(2\) counterpart from the same stem).

Other /-a/ stems in the dictionary are /bali~/ (really 
/wu~aru/), /dali~/, /dili~/, /li~/, /hali~-bura-/ , /hali~da-/ , 
/halwula-/ , /halwh~ula-/ , /salv~ula-/ , /salwh~ula-/ , /salwh~ula-bu-/ , 
/wh~ula-/ , /wilumda-/ , /wum~a/-, and /yindawa-/ . Total in class: 57.

The M\(A_1\) and M\(A_2\) classes are closely associated formally. The 
M\(A_1\) type is rare; the clearest ex. is /w~uli~wu-/ 'to strike, 
hurt', though a few of the stems listed as M\(A_1\) may also permit 
M\(A_2\) variants. The dominant M\(A_1\) type consists of "auxiliary compounds" (§14.4) 
ending in /-wu-/ (cf. /-wu-/ 'to hit, kill') which is occasionally 
used in the sense of hitting or biting. In true 
compounds involving 'to hit, kill' (e.g., with body-part compound 
initial), /-wu-/ is replaced by suppletive /-adi~/.

The attested M\(A_1\) stems are /dhadib~bu-/ , /di~giri~wu-/ (also 
/A\(1\), /galin~baru-/ , /gala~ba-/ , /ja~li~bu-/ , /ji~ru-/ (cf. 
noun root /ja~li~/), /hal~guru-/ , /hal~gulu-/ (cf. noun root 
/hal~gulu/ , /hal~i~/), /hilihir~wu-/ , /hili~gi~wu-/ (also A\(1\), /lali~/, 
/lali1~bu-/ , /li~guri~wu-/ , /li~ru-/ (cf. noun root /li~ru/), 
/mari~/, /min~bu-/ , /mar~baru-/ , /mar~uguru-/ , /mar~ugulu-/ (may 
be compound semantically), /mar~ur~bu-/ , /m~aru~bu-/ , 
/m~aru~bur~a-/ , /mar~ay~ru-/ , /ma~ru~ru-/ , /ma~ru~ru~bu-/ , 
/mi~guru-/ , /mi~gulu~b~u-/ , /mi~gulu-/ (cf. noun 
/mi~gulu/), /num~b~u-/ , /num~b~u~b~u-/ , /num~b~u~b~u~b~u-/ , 
/w~uli~wu-/ , /y~ani~/, /ya~li~wu-/ , /ya~li~ru~wu-/ , /ya~li~ru~/ (also A\(2\)), and 
/yi~/wu-.

Occasional fluctuation between A\(1\) and M\(A_1\) is probably related to 
the existence of M\(A_2\), which has some A\(1\)-type endings.
Chapter 12

Particles and postpositions

12.1 Definitions: particle, postposition, enclitic particle.

A particle is a form which occurs as a separate word, which has no internal morphological structure, and is unable to take any further affixation. An enclitic particle is a particle which, in addition, must occur after some other word (with no intervening pause), the best example being /yamba/ 'because' (§12.15).

A postposition is a similar element which, however, is formally attached as a final-position suffix to another word, so that phonological rules (specifically, those applying to underlying consonant clusters at boundaries, including deletions and assimilations of the consonant[s] before the boundary and/or Hardening P-18 of the consonant after the boundary) may apply.

The majority of particles of any grammatical or discourse interest are treated in the present chapter. This includes the important class of particles known as verbal root forms (§12.2). There is also a section on postpositions (§12.21), although these have already been introduced (e.g., §4.32).

For negative particles /girjag:/ and /yagi/, along with the other negative element /wa=\='i/, see §8.2 and §15.6.

For yes/no interrogative particles /yu:ga/ and /aliyun g /, along with tag-question particle /ala/ used to elicit confirmation or approval (with a suggestion or imperative), see §13.1.

For Vocative pronouns, including one (2Sg /guwaj:/) which might be analysed as a particle, see §6.7.

12.2 Verbal root forms.

The expression verbal root form or just root form is a technical term for a set of particles which are associated semantically, and in some cases formally, with verbs. (In the dictionary they are indicated by the abbreviation Rf.) They are pronounced as interjections and do not co-occur inside a clause with other constituents, though they frequently occur in juxtaposition to an ordinary clause which may contain an inflected form of the associated verb stem.

Table 12-1, below, gives a fairly complete inventory.
They are normally pronounced with very short vowels, though occasionally one of the bisyllabic root forms shows stylistic lengthening of the second syllable.

As for the final consonants, note that labials are virtually never used with no formal change to indicate a transitivised or intransitivised (e.g., causative or reflexive) variant of the action designated. They are also unmarked for pronominal category of subject (and object).

In some cases, the root form is arguably referring not to the entire action, rather to a sound or noise produced by the action; there may thus be a fuzzy boundary between root forms and the general class of interjections referring specifically to sounds. Some examples in Table 12-1 might be /burjl/, /dhud/ (compare English thud!), /dirjal/, /n'am/, perhaps even /wil/.

The basic usage of root forms is as interjectional abbreviations of what would otherwise be an ordinary clause with inflected verb. The root forms also usually suggest instantaneous or at least relatively brief events, and have a dramatic quality which makes them popular in narratives. For this reason they are often used (redundantly) in juxtaposition to the corresponding verb. Some examples of such juxtaposition are /dhij/ with /hina-/ 9.13.2, /wa/ with /palali-/ 40.15.4 (compare later /wil/ by itself, 40.16.3), /gul/ with /giriga/- 43.14.4, and /dhud/ with /dhida-/ 43.12.4 (and 43.13.4). Additional exx. of root forms in the absence of the corresponding verb are /jan/gaj/ 13.32.1 and /jalbur/ 30.5.5.

Some of these root forms occur typically in a rapidly-spoken sequence. This is the case with /wil/ 'to fly', hence /wil wil/ will: /.../ 13.32.3-5. It is also true with /gaj/ 'to eat' (114.4.6, 114.7.4), which is not used in any other fashion and is thus not closely parallel to most of the other root forms.

Root forms can occasionally be used as imperatives, though this is not their most usual function. In the meaning 'to shut up', this is the usual function, however, of /gaj/.

Root forms are listed separately in the dictionary with textual attestations, so we omit further documentation here.

A number of interjections which appear to refer primarily to noises as such, and are therefore not discussed here, are listed on p. 336 of the dictionary; some of these might possibly be reanalysed as similar to root forms (in that they are associated with specific activities, such as hitting tapsticks).

12.3 /ada/ or /aba/ 'now, then' (immediate).

The particle /ada/ and its shortened variant /aba/ occur hundreds of times in the texts. They are often clause-initial but may also occur elsewhere (e.g., after the verb); the form /aba/ is perhaps most often clause-initial.

The basic meaning is temporal immediacy (close sequence) linking the present clause (or rather, the event it describes) with the preceding clause, or with the 'now' of the speech event. In past tense narrative sequences, we can translate with 'then'. If the reference time is the 'now' of the speech event, the translation is (unstressed) 'now' (Ross 1956:7, 13.32.5.4).

Since the root forms focus exclusively on the verbal action, they are neutral with regard to voice categories, and can thus be used with no formal change to indicate a transitivised or intransitivised (e.g., causative or reflexive) variant of the action designated. They are also unmarked for pronominal category of subject (and object).

Root forms are normally pronounced with very short vowels, though occasionally one of the bisyllabic root forms shows stylistic lengthening of the second syllable.

**TABLE 12-1**

<table>
<thead>
<tr>
<th>Root Forms</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>bagda! =gara-, =ah-</td>
<td>jump; move quickly</td>
</tr>
<tr>
<td>ba! =ba-</td>
<td>jump; shift position quickly</td>
</tr>
<tr>
<td>bigi = [averbal]</td>
<td>run, dart, move quickly</td>
</tr>
<tr>
<td>burj! =purja-</td>
<td>clap [hands]</td>
</tr>
<tr>
<td>dasi =hasa-, =tabala-</td>
<td>come out into the open</td>
</tr>
<tr>
<td>dhi =dhida-</td>
<td>close off, block, stop</td>
</tr>
<tr>
<td>dhi =dhida-</td>
<td>go through (mud, etc.)</td>
</tr>
<tr>
<td>dhi =ralha-</td>
<td>land (e.g., bird, stone in air)</td>
</tr>
<tr>
<td>dirja! =dirja-</td>
<td>defecate (esp. with splattering)</td>
</tr>
<tr>
<td>gad! =rad-bu-</td>
<td>tie up</td>
</tr>
<tr>
<td>diru! =diru-dha-, etc.</td>
<td>jump into water</td>
</tr>
<tr>
<td>gil! =na- / gilarha-</td>
<td>catch fire, set fire</td>
</tr>
<tr>
<td>gab! =madaba- / =p!wu-</td>
<td>shut up // eat, swallow</td>
</tr>
<tr>
<td>gad! =pal-</td>
<td>bite</td>
</tr>
<tr>
<td>gud! =guda-</td>
<td>prod, poke</td>
</tr>
<tr>
<td>gubl! =gulhaga-</td>
<td>grab, seize</td>
</tr>
<tr>
<td>gu! =gulguji-</td>
<td>lift up</td>
</tr>
<tr>
<td>jabur! =jaburda-, etc.</td>
<td>jump into water</td>
</tr>
<tr>
<td>jiga! =yaiha-</td>
<td>go past, slip away</td>
</tr>
<tr>
<td>jarg! =adniga-</td>
<td>stab, jab, harpoon</td>
</tr>
<tr>
<td>jarg! =jarg! =ma-</td>
<td>pick up</td>
</tr>
<tr>
<td>juj! =jui! =ya-</td>
<td>go</td>
</tr>
<tr>
<td>julub! =juluba-</td>
<td>jump in, hide in (something)</td>
</tr>
<tr>
<td>jugi! =yi(e)jurgi!</td>
<td>push, drive ahead, propel</td>
</tr>
<tr>
<td>m'am! =mi-</td>
<td>eat</td>
</tr>
<tr>
<td>w! =wa-</td>
<td>arrive</td>
</tr>
<tr>
<td>wil! =w!libla-</td>
<td>fly</td>
</tr>
</tbody>
</table>

We note, to begin with, that the favourite initial consonants are stopes /b d g/ 3/. In some cases the associated verb stem is cognate but begins with the corresponding (homorganic) consonant, e.g. /burji/, /dhid!, /dal/, /jarg/ (jarg! is probably related to the verb /yarda/ 'to poke, start up [motor], blame, touch', though there has apparently been a partial semantic divergence.) Although the root forms are now clearly distinct lexical items, in some cases they are (historically) precisely the roots (minus thematising augment such as *-dhu- or *-dha-) of the corresponding verbs; the root forms but not the verbs retain the archaic phonological representation of the stem.

As for the final consonants, note that labials /m/ are fairly common. This is despite the fact that labials are virtually never used with no formal change to indicate a transitivised or intransitivised (e.g., causative or reflexive) variant of the action designated. They are also unmarked for pronominal category of subject (and object).
In narratives, however, /agaba/ may do more than just indicate temporal relationships among clauses. It may also serve as a (weak) framing device, foregrounding the event in the new clause in contrast to the preceding. Usually there is no major shift in perspective or topic—just a weak highlighting of the new event. (We might compare English sentence-initial narrative pronoun, but the Nunggubuyu particle has rather weaker framing effect.)

Since /agaba/ can be found on perhaps every page of the texts, we omit a long list of exx. In the first text of NMET we can cite 1.1.3, 1.2.1/4/6/9, 1.3.35, 1.6.2/3/4/5, 1.8.12, 1.9.4, 1.10.3/6/7. An ex. with future verb is 12.5/4.

That /agaba/ is not a NAdv, rather an uninflectable particle, is shown by the fact that no NC prefix is added in negative contexts, as in 10.2.3, (This is a standard test for particle vs. NAdv. §4.8). In addition /agaba/ never takes a postpositional suffix.

For a much stronger framing particle, cf. /arapa/ (§12.7, below). Conjunctive /mari/ and /n^a/ (next section) 'and' should also be thought of as roughly similar particles, though they have somewhat different discourse effects.

A more explicit temporal sequence of two events, often implying a greater lapse of time between them, is expressed by demonstrative expressions like /an-uba-ni/-’la-wa/ ‘after that’ (§7.8, §7.31) beginning the second clause, by particle /wurugu/ ‘later’ in the second clause (§12.5), or occasionally by adding Ablative /-wa/ to indicate the time at which the second clause began (§16.5). There is also a particle /m^i-lan/ ‘more, again’ (§12.6).

We sometimes find /agaba/ in a clause also containing another particle, but there do not appear to be any recurrent, fixed combinations of particles including /agaba/.

A NAdv (adverbial noun) which might be mentioned in connection with /agaba/ on grounds of partial semantic similarity is /hailbag/ ‘a short time [ago/from now]’. In context it may mean ‘just a moment ago’, ‘just a moment before’, ‘very soon’, ‘on the verge of’, ‘just about to’. It is much more emphatic in specifying close temporal sequencing than is /mari/ (impending) events. The NAdv /yimba/ ‘today’ (in narratives also ‘that same day’) has a more general sense ‘these days’ (in opposition to the remote past), and hence occurs in some contexts as a translation of English now. It should be distinguished from /agaba/, which does not have this usage.

12.4 /mari/ or /n^a/ ‘and’.

The most neutral ‘and’ particle (i.e., conjunction) is /mari/. This is a syntactically flexible particle which can link conjoined NPs, clauses, or other constituents. For example, a common way of conjoining two NPs is to insert /mari/ between them; intonationally, /mari/ belongs with the second conjunct (like English and but unlike Japanese to). Exx. are 10.2.1, 16.2.2, 14.12.2. The NPs may have case markers, as in 42.1.1, where both nouns have Relative suffix /-yin-um/.

In extended lists, /mari/ is optionally used between any two of the conjuncts, but the tendency is to make little use of /mari/ in this situation, except perhaps after a slight pause somewhere in the list. The end of such a list is typically indicated by the form /da-ni:-'la-yung-gala-waj/ or a variant thereof in list-summative function (§7.9).

For further remarks on conjunction (especially of NPs, including instances involving an NP and a pronoun), see §5.7.

In narratives, /mari/ is moderately common as a clause-initial particle, though it is not obligatory in narrative event sequences. Among many exx. we may cite 7.1.2, 11.9.3 and 14.19.2. Although we cannot present a unified analysis accounting for all text tokens, we can say that /mari/ may have weak framing functions, highlighting the event in the new clause. There is thus some discourse-functional similarity to /agaba/ (preceding section), but of the two, /mari/ is more likely to occur when the conjoined narrative clauses are uttered in rapid succession, while /agaba/ seems to be favoured by a breath-group pause. We may also mention that /mari/ is common with following verbal root form (§12.2), as in /mari gu^bula/ 10.18.2-3 ‘... and they grabbed her!’ (cf. also 14.19.1 [p. 102 of NMET, emending “14.18” to “14.19”]), 16.14.3/6.

There are occasions, though not many, in the texts where /mari/ does not occur at the beginning of the new conjunct (NP, clause, etc.). In such cases we must be aware of the possibility that /mari/ was intended to go at the beginning of an additional conjunct, which was cut off (false start, self-repair, etc.). In 28.6.3 we have /n-1-ga n=bu burbujur yamba mari/ ‘as-for her she-was-diseased because and with a pause after /mari/, but it seems reasonable to think that this was a hesitation pause rather than a regular intonational break, and the material after the pause can reasonably be construed as a clause conjoined to this one. However, in 69.3.5 we have /mari/ at the end of a (quoted) clause which can be construed as conjoined to preceding clauses (within the quotation); here we might gloss /mari/ as an emphatic ‘furthermore’. In 64.9.3 we have /mari/ between a man’s name (grammatical subject) and the verb of the clause, but it may be that this is a case of repair (so that the man’s name by itself represents a false start after which the clause was begun anew; this is supported by the fact that the man’s name was repeated after the verb). In general, /mari/ is uncommon except at the beginning of the new conjunct; some apparent textual counterexx. are misleading; the few real counterexx. seem to involve emphatic finality.

/mari/ often co-occurs with other particles. A very common combination is /mari n^a/, which we discuss below. In other combinations, /mari/ precedes the other particle (in all recurrent combinations) with some exceptions involving /m^i-lan/ ‘more, again’ (§12.6), hence /n^a-lan/ mari/ 166.14.2. With /wurugu/ ‘later’ (§12.5) we have /mari wurugu/ 21.2.1, and all three particles occur together as /mari n^a-lan/ wurugu/ 43.4.3; for /mari yin-ga/ 90.2.1 cf. §12.7.

The particle, we may be more difficult to describe than /mari/. Whereas /mari/ is a relatively neutral conjunct, /n^a/ implies a natural continuity between the two conjuncts. In terms of placement (including Intonation), /n^a/ may be at the end of the first
conjunct or at the beginning of the second in those cases where the
boundary is clear.

/n²a/ is not used for simple conjunction of NPs. It can be
used with two demonstratives indicating locations, but in this
case, /n²a/ does not refer to the abstract conjunction of the locations
but to the distance between them, usually conceived of as
beginning in one spot and proceeding to the other. For the most
common usage of this type of expression (i.e., in specifying
distance), see §7.28.

The more common usage of /n²a/ in the texts is to link two
clauses. One very common sequence is the following:

\[ \text{Verb}_1 \mid \text{Rdp}-\text{Verb}_1 \mid \text{Verb}_2 \]

The brackets represent clauses (which may also contain additional
words, not shown). An event represented by Verb₂ is introduced,
usually in unreduplicated form, either punctual or continuous aspect.
After a pause, prolongation of this event (or situation) is indicated
by a reduplicated (hence also continuous aspect) form of the same
verb with stylistic lengthening of the final syllable. This verb
is followed in the same breath group by /n²a/₂, then with or without
a short pause a new verb (Verb₂) introduces the next event. The
reduplicated verb (which is often pronounced with continuous high
pitch, with pitch falling to low on /n²a/₁) is backgrounded in
discourse terms, in somewhat the same way imperfective clauses are
carried over (as in European languages e.g., Spanish), and the
reduplicated verb plus /n²a/₂ provide a clear discourse frame which
highlights the following new verb (Verb₂). Among many textual exx.
we may mention 13.8.1 (cf. preceding material beginning around
13.7.3) 4.5.3 (where Verb₂ is replaced by a predicative ḳaاكت), and
5.11.3-5.

The schema shown just above is merely intended to be represen-
tative, and there are many syntactic variations on the same basic
principle. Sometimes the repeated Verb₁ is not reduplicated;
sometimes the first occurrence of Verb₁ and/or the occurrence of Verb₂
is lost. Sometimes the stylistic lengthening (\ldots ) before /n²a/ is omitted, or applies to an intervening word (e.g.,
a demonstrative, as in 5.3.5). Frequently, instead of Verb₂, the
word immediately following /n²a/₁ is a demonstrative (pronoun or
adverb, but referring to locations rather than entities), which
is often itself followed by a verb (Verb₂) after a pause. A typical
schema might be this:

\[ \ldots \mid \text{he-kept-going n²a₂} \mid \text{there, he-stopped} \]

In this type of sequence, /n²a/₁ typically has low pitch, the
demonstrative (there) has clause-initial high pitch but may be
uttered with no real pause, and the following verb (he-stopped)
may require a pause just before it. Some textual exx. of this schema
or some variation on it: 16.6.9-10.5.7.3. 16.12.6 (with place name
instead of demonstrative), 5.38.1, and 6.2.2. The measure-of
distance construction with /n²a/₂ with /n²a/₂ /n²a/₁ /n²a/₂ /n²a/₂ /n²a/₂
plus demonstratives is also related (§7.28).

A close parallel to the preceding is the predication of
recognition, of which the following schema is representative:
There are occasions where /n⁶g⁴/ is not necessarily conjunctive. When it follows a demonstrative form (Locative DemAdv or a DemPro), /n⁶g⁴/ does not necessarily conjoin it to a following phrase or clause, but may merely emphasise the demonstrative. I believe that this is the case in 16.20.3/4 with /da-nu/- 'right there [on your head]', although one might argue from inspecting this ex. that the /n⁶/ does involve the transition to the next phrase. In any event, in unrecorded conversation I have heard similar combinations with high pitch falling to fairly low by the final syllable of the demonstrative, then high pitch on the /n⁶/, often with no following material. In view of the virtual absence of clear textual exx., I cannot analyse this pattern in depth. There are other, more common ways of emphasising such demonstratives, e.g., use of suffix /-miri/ (§7.19).

12.5 /wurugu/ 'later'.

This particle has a comparatively straightforward meaning 'later, afterward'. It passes the tests for particle status, including inability to take postpositions and avoidance of NC prefix even in negative contexts (an ex. of /wurugu/ in negative context is in NT 9); another is 48.1.3/4/5.

This particle can combine with other particles. We mentioned /mari wurugu/ and /wurugu n⁶g⁴/ in the previous section (it is likely that /n⁶g⁴ wurugu/ also occurs). We can cite /n⁶g⁴Jan⁶ wurugu/ (cf. next section) 'again later' or 'more later' 21.9.1, 21.10.1, 33.1.2, 43.4 (with preceding /mari/); 43.5, 52.5/2, 163.19/2, 3/4, showing that to be one is 3/4 (with anticipation nuance) 71.2, 4.

Additional exx. of /wurugu/ are 7.6.1/2, 13.13, 37.2 (if not mistranscribed), 49.12.7, 55.9/2, 69.5/1, 71.18.1, 73.5/5, 106.3/1.2, 116.8/2, 143.10.3, 157.7/2, 161.1, 163.1, 163.20/2, 163.30/4, 162.7/5, 162.14/1, 163.14, 165.1.

A competing form (not a particle) is /an-uba-n⁶g⁴- 'la-wala/ 'after that' (§7.8, §7.31).

12.6 /n⁶g⁴Jan⁶/ 'more, again, further'.

This is a rather common particle with a variety of (translation) meanings. Exx. showing lack of NC prefix even in negative context are 21.10.2, 47.9/5, and 58.3/2. It never occurs with postpositions. Overall this particle occurs at a rate of about one token every two pp. of the texts in NNMT (based on the first 19 texts). A few exx. showing contextual meaning: 7.10.5-6 [the stone was not there any more]; 7.18.1 [now I will tell the story of brulga too]; 8.4/1 [the "devil" died; again it got up] (cf. also 8.5/1/3); 10.12.3 [he was cutting his eye; again he was cutting his (other?) eye]; 12.8.1 [having not fully closed their eyes the first time] then they really closed their eyes again; 13.1 [meat ants dig out holes on one side, again on the other side they dig out holes]; 13.7/1 [that's the story of meat ants, (now) again ...]. The Nunggubuyu particle has the general sense of emphasising the additive quality of an event or object. In the case of verbs, it indicates repetition rather than mere continuation.

In 69.8.5-6 we have /n⁶g⁴Jan⁶/ twice in a list; I suspect that it functions here as a filler enabling the speaker to think of the names of additional items.

Of the combinations of particles including /n⁶g⁴Jan⁶/, the one currently one is /n⁶g⁴Jan⁶ wurugu/, mentioned with citations in the preceding section. Other, less common but attested, combinations are these:

/n¹g⁴Jan⁶/ 19.4.3/ 1/9.4Jan⁶ wutata/ 7.18.1, 19.5.1 (cf. §12.3); /n¹g⁴Jan⁶ g⁴/ and /n¹g⁴Jan⁶ m¹ri/ (§12.3) has citations; 
/yin⁶g⁴ n¹g⁴Jan⁶/ 13.28.2 (cf. following section).

One final note on translation of /n⁶g⁴Jan⁶/; while it can have an additive sense when attached (usually preceding) a NP or other constituent (in a list or other sequence), by itself it does not have the sense of increasing a quantity (cf. English more as in Give me some more!). That is, it does not directly correspond to French davantage, for example. Its central meaning is 'again, another time', or in some contexts 'in addition [to the preceding]'. It normally indicates a new, separate repetition of an event or new entity, rather than a continuing, steady increase.

12.7 Anticipatory /yin⁶g⁴/, /araga/ 'suddenly', /giya/ 'look out!'.

In this section we deal with three particles whose exacting value is greater than that of the particles discussed so far.

Particle /yin⁶g⁴/ occurs about 100 times in the texts of NNMT. It never takes affixes, though I cannot cite an ex. in a negative context showing absence of NC prefix (for semantic reasons it is unlikely to occur in negative contexts). The basic meaning involves anticipation/imminence of some event, but it is necessary to go into finer detail; there are many contextual translations into English.

First, we observe that /yin⁶g⁴/ frequently co-occurs with /wurugu/ 'nearby, close', especially when the context involves notion (so that arrival is imminent): 8.3.3, 8.5.1, 17.4.4, 17.5.1, 161.7.1. Similarly, /yin⁶g⁴/ occurs in contexts where the word /waguta/- happens to be absent but where something is approaching or arriving: 1.5.3, 13.9.4, 13.28.2, 13.39.2, 165.1/2, 45.3/2 (birth), 45.3/3 (birth), 45.3/4, 48.1.4, 56.13.5, 161.20.4 (arriving), 163.2/2, and perhaps 45.6/3.

Similarly, /yin⁶g⁴/ is frequently found in juxtaposition to an NAdv or verb indicating time of day. A frequent combination involves a form of /yin⁶g⁴/- in the sense 'to dawn' 4.4.1 (twice), 4.5.4, 9.12.4, 71.2, 1. Others are 4.3.4 and 4.4.4 (late afternoon), 13.18.3 (early morning), 13.19.2 (already cited above, involving late afternoon as well as approaching), 40.12.1 (star), 52.5/5 (mid-morning), 162.3/2 (getting dark), and 65.12.3 (birds singing, i.e., early morning). In these cases, the contribution of /yin⁶g⁴/ is not to indicate that the time of day indicated is imminent, rather that it has arrived (after a wait).

Looking at combinations of /yin⁶g⁴/ with contexts not involving approaching/arriving or time of day, we again find a range of meanings involving either the imminence of a not-yet-realised event (which may in some cases not be realised at all), or the actualisation...
of an event which has been anticipated (and waited for). Under the
category of imminence we include the following:

a) exx. of the type 'was about to' with Juxtaposed Past

For such verbs to which Purpose /-yunguyun g/ is added (§16.5) are
11.7.1 ('he was about to spear it, but...'), 12.2.2 (similar exx.,
b) exx. like the preceding but without /yun gyun g/ on the
Past Pot verb: 7.13.2 ('she was about to hit her'),
c) exx. of the type 'is about to' involving a Future verb:
36.5.4 ('I in turn am about to [swim]', with verb omitted because
obvious in context of story),
d) cases where /yi ngga/ is translated 'nearly, almost' not in
temporal sense but in sense of an event (recognition, bumbling, etc.)
which almost happened but did not: 43.11.5 ('devils nearly heard
them escaping [devils were asleep']), 43.12.4 ('nearly bumped'),
e) exx. where /yi ngga/ plus verb indicates that an attempt is
made to accomplish the event: 13.40.2 ('they nearly [i.e., tried to]
pull themselves out, but no!'),
f) exx. where /yi ngga/ indicates that a location is very near
the boundary of some zone, although motion crossing the zone is not
(necessarily) involved or expected: 21.3.4 ('she was still in
Yirija-moteity territory [but on the edge of the other moiety's
territory]').
g) exx. involving desire for something which is nearly within
one's grasp: 44.3.2 ('buffalo was anxious to find shade'), 44.4.2
('then buffalo saw some [hoped-for] shade'),
h) in conversational contexts, /yi ngga/ may simply express
the speaker's desire for something and may function as an appeal: 40.9.1
('let your daughters go over there', or 'how about having your
daughters over there?'), 40.10.1 ('Mother! Ruru [are you]
good?'),
i) involving a durative event which will soon have a
conclusion: 43.4.2 ('tree was falling, so they flew away'), twice in
43.5.3 ('tree was falling and about to be tied up, so again he ran away'),
j) cases just described, /yi ngga/ is juxtaposed to the
expression (usually a verb) which directly specifies the anticipated
or imminent event. However, there is another usage in which /yi ngga/
is formally juxtaposed to an expression indicating a backgrounded
(e.g., preparatory) event or situation, but appears to look
forward to a more important or dramatic impending event. The discourse
function in these exx. is to build up suspense, providing a
maximally dramatic frame for the later event. (When the later event
itself is expressed, it often involves a verbal root form, see
§12.2, and/or the dramatising particle /araga/ 'suddenly!', treated
in this section, below.)

Exx. clearly or tentatively analysed as involving this look-ahead
imminence are these: 4.5.3/4 ('they slept, they slept [some more],
finally it dawned'), 4.6.1 ('she left, then, he leave him the rope'),
7.13.1 ('she picked up a stick and was going to hit her'), 10.9.5
('they ran through the mud again, then she cut him in half at the
waist'), 13.36.1 ('he hooked spear to woomera, then he was about
to spear it, but suddenly they shouted...'), 13.37.3/4.5 ('[the said]
"Close your eyes!", then one closed her eyes, and the other closed
here, they closed their eyes tight. [then he speared both of them]).
43.3.2, 43.7.2, 43.16.2, 7.13.3 (two), 95.9.5 (two), 119.2.1, 161.2.1, 161.3.2, 161.7.3/5, 161.9.3, 162.9.2, 162.13.1, 162.14.2/3, 162.18.1, 162.24.5, 163.2.1, 163.13.4, 163.15.2, 163.17.1/3, 166.9.4, 166.13.3, 167.12.2, 167.13.1, 167.17.4, 167.18.1. The usage of/narban/ is straightforward and we dispense with further analysis.

To conclude this section, we mention the (interjection-like) particle /giya/, pronounced /giyaː:/ (for the stylistic lengthening and vocalic development cf. rule F-39, Chapter 3). This means ‘watch out!’ or ‘beware!’, and has a reduplicated form /giya-giyaoː!/ as well. There are no textual attestations.

For another (more common) way of expressing warnings, cf. the Evitative verb forms discussed in §8.7.

12.8 Confirmative particles: /yiga/, /n '\ubindi'/.

The prototypical context for using particle /yiga/ is: this; the speaker has previously claimed that some object or phenomenon is present, and is now able to actually point it out. (Cf. English ‘There’; or ‘There! I told you so’.) There is often an implication that the original claim was considered dubious by addressees.

The exx. in NMET are these: 11.6.5 (twice, once with preceding/\i/ and/\a/), 14.6.4 (within narrative perspective), 15.10.3, 18.21.3, 40.1.6 (preceded by/\i/), 40.15.3, 42.5.2, 47.23.2, 50.2.5, 65.15.6, 104.3/4 (preceded by/\a/), 116.12.3, 123.4, 150.11.1, 154.2.6, 157.6.1, 162.6.4. The spatial localisation of something which has come into view is emphasised in some of these exx., but there are a few which involve some other kind of emphasis. It appears that in all instances, the speaker is strongly calling attention to the attention of addressees. Often English imperative ‘look!’ can act as a contextual translation.

Another particle, /n '\ubindi/', is less common and attested only a few times in the texts. The exx. are these: 95.2.6 (‘they-looked and indeed there-it-was,’ where ‘and’ is/\a/), 162.6.3 (‘we-listened, and indeed there-he-was he-whined!’); 167.7.3 (‘he-looked and there-it-was indeed it-faced-us!’); 166.12.3 (‘they-saw-fire:-Indeed they-all-arrived’, where :) marks stylistic lengthening). Particle /n '\ubindi/' is fairly similar to /yiga/, indicating actual arrival or appearance (within the field of vision) of something previously farther away. Three of the four exx. of /n '\ubindi/ involve a verb indicating an attempt to perceive (‘look’, ‘listen’) along with particle /n '\a/ and (cf. §12.4); note that /\a/ is also fairly common with /yiga/ in the exx. cited above.

Since there seems to be little difference between /yiga/ and the less common /n '\ubindi/, it may be that there are differences among speakers regarding whether /n '\ubindi/ is productively used. All the textual exx. of /n '\ubindi/ are from one speaker.

Cf. also postposition /\ibindi/ ‘really’ (§12.23).

12.9 Exhorted particles: /jiri/ , /\il/, /n '\arban/ , /\a/.

Note of these particles occurs in the texts in NMET, though one, /n '\arban/, occurs in one of Hughes’ texts (TNT 7). The meanings, so far as I can determine them from elicitation and observing conversations, are these:

/jiri/: (urging someone to carry out action: ‘go on!’);
/\il/: (urging cooperative activity: ‘let’s!’);
/n '\arban/ (similar to /jiri/; may be used with /\i/);
/\a/ (urging someone to give something: ‘hand it over!’).

The rarity of these particles from texts indicates not only that they are not especially common, but also that they are used in the give-and-take of conversations rather than in narratives.

Concerning /\il/, we note that future 1st person inclusive verbs are normally interpreted as exhortative anyway, so /\il/ is redundant except as an occasional emphatic reinforcer.

Similarly, 2nd person future verb forms, though not always imperative in force, are commonly interpreted as imperatives or at least suggestions (when there is no interrogative marker present).

Both 1st and 2nd person verb forms with exhortative or imperative force can be made emphatic using other devices: 2nd person future verb forms with imperative force can sometimes be made more pressing by using Punctual rather than Continuous inflectional suffix; both 1st and 2nd person forms can be made emphatic by adding a postposition /\i/ (§12.21) ‘really’; andmitigating particles like /\i/ (§13.1) which are often used to soften imperatives and 1st inclusive suggestions may be omitted.

12.10 Concessive /\i\u, Adversative /\a/.

Particle /\i\u/ was noticed in unrecorded materials as a concessive particle similar to English ‘admittedly’. That is, it is concessive of some point, while maintaining another main point which is slightly inconsistent with it. Perhaps a closer approximation to the Nunggubuyu nuance would be ‘It’s quite true that...’, a formula often used in English to frame a background point which is just about to be downplayed (‘it’s true that you’re doing a good job, but we just can’t afford to give you a raise right now’).

The actual textual exx. in NMET are not easy to analyse, since in some cases the implication of tension between backgrounded and main points is not clearly present. In 42.5.2, despite some syntactic fragmentation, there is an opposition present which suggests a translation with ‘although’ (‘although we hunt green turtles, they can see us coming if the water is clear [and thus escape!’). The other exx. are from a single text (166.21.1, 166.26.4, 166.27.1), and all involve /\i\u/ added to an expression meaning ‘many [people]’, apparently a concessive particle similar to English ‘admittedly’. That is, it is used to concede a background point, while maintaining another main point which is slightly inconsistent with it. Perhaps a closer approximation to the Nunggubuyu nuance would be ‘It’s quite true that...’, a formula often used in English to frame a background point which is just about to be downplayed (‘It’s true that you’re doing a good job, but we just can’t afford to give you a raise right now’).

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addressee rather than challenging him/her. Exx. of this or closely related subtype are 15.8.2 ('it’s just us\[InDu\], i.e., 'it's just
when strongly asserting a correction or contradiction rather than merely expressing doubt or suspicion.

A special case of the preceding type involves rephrasing the address, rather than challenging him/her. Exx. of this or closely related subtype are 15.8.2 ('it's just us\[InDu\], i.e., 'it’s just

me here with you', said after other person had expressed alarm), 40.5.3/4 (straying persons talking spirits of dead, 'No, we're not dead [i.e., coming to join you], we just strayed off course!), 163.17.3 ('it's just me').

\[yagu\] may also be used to express self-contradiction (i.e., to contradict something which the speaker has just said). This is not very common (except with /\[wain\]/, see below), mainly because there is another particle /\[sada\]/ §12.19 which is regularly used in self-repairs. However, 19.17.2 may be an ex. of /\[yagu\]/ in self-repair function, since /\[wunyn-n/ 'the sun\[s\] is low' seems to be implicitly retracted (as premature for this point of the story) by the next clause 'but she was just poking around blindly'.

On the other hand, in the specific combination /\[wain\]/\[yagu\] the particle /\[yagu\]/ is very common. This phrase simply functions as a stronger, more emphatically self-critical, variant of /\[wain\]/ 'what's amocallit?'? (§13.10), used when the speaker cannot remember a place name or other expression. Among many exx. in NMET we may mention 11.2.2, 18.6.3, 18.7.8, 18.9.1, 18.15.2/3, 20.1.5, and 20.2.7. The usual pronunciation is /\[wain\]/\[yagu\]/, with /\[yagu\]/ irregularly undergoing Hardening P-18 due to the nasal concluding the preceding word; in other combinations /\[yagu\]/ does not show this treatment. In 20.2.6 we have different word-order: /\[yagu\]-\[a\]-\[wain\]/ (with NC prefix /\[a\]/); in 18.20.5 we have just /\[yagu\]/ with /\[wain\]/ implied.

This still leaves us with a residue of not-yet-explained cases of /\[yagu\]/. Many of the remaining instances involve contexts where something is recognized or makes an appearance. Translation with 'but' is not suitable (in English) since there is no adversative relationship among propositions; perhaps we should suggest that a subject which unexpectedly appeared is thought of by Nunggubuyu as adversatively related to his previous absence or invisibility. (Note that the 'it's us!' and 'it's me!' exx. [paragraph ending on top of this page] are a link between this type and earlier ones.) The exx. I have in mind are these: 28.12.1, 28.16.3, 65.10.2 ('they seem to have done something
didn't go', with /\[yagu\]/, see below), mainly because there is another particle /\[sada\]/ §12.19 which is regularly used in self-repairs. However, 19.17.2 may be an ex. of /\[yagu\]/ in self-repair function, since /\[wunyn-n/ 'the sun\[s\] is low' seems to be implicitly retracted (as premature for this point of the story) by the next clause 'but she was just poking around blindly'.

In 18.6.3 we have just /\[yagu\]/ with /\[wain\]/ implied.

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In 18.6.3 we have just /\[yagu\]/ with /\[wain\]/ implied.
/yaga:/ in both of first two clauses), 47.19.3 ("I will go, early morning around dawn, I will go fishing' with /yaga:/ in time expression), 55.10.4 ("they dispersed [from meeting'", with contrast to their coming together for the meeting''), 100.4.1 ("sometimes they did not want to eat green ants and [so] did not treat them off ['branches and nest'], 113.2.5/6 ("just us men went, we wanted the women with us however, we took them with us'"). 170.1.1 ("[sometimes] there was no orchid [for pigment fixative], they couldn't get any with /yaga/ at the end of the first clause.

As is often the case with Nunggubuyu particles and other forms, there is a certain common thread linking the uses of /yaga/, but the complex of uses as a whole is quite distinct from anything in English and translation is exceptionally difficult.

Among other Nunggubuyu forms whose meaning partially overlaps with that of /yaga/, we will single out the particles /muga/, /'suddenly' (§12.7), self-correcting /malha/ (§12.19), and perhaps /yaga/ (§12.12). In addition, conjunctive /maru/ and /n/a/ (§12.4) may be used to link clauses which have a partly adversative relationship (or to introduce a clause indicating a sudden and dramatic event), as well as other types of clause combination. Finally, negative interjection particle /girjang/ (§8.2 and §15.6) may be used by itself to indicate the failure of an attempt or expectation (e.g., 'He was fishing and not' can mean 'He was fishing but didn't catch anything').

12.11 Dubitatives /a/G, /muga/, /n/a:lhug/.

These three particles, of which /n/a:lhug/ is by far the least common, are used in contexts involving expressions of doubt about the truth of some proposition.

/n/a:lhug/ appears to resemble English interrogative 'Really?', expressing surprise at something just said and perhaps requesting confirmation. It does not occur in my texts but was recorded in Hughes' texts (MT 11, TNT 13 18).

Particle /a/G means 'maybe, perhaps'. The co-occurring (or implicit) proposition is offered as a possibility, and the speaker does not express strong opinions on its likelihood or unlikelihood. Frequently we get a particle-combination /a/G /muga/ in roughly the same sense, though in this case the speaker seems to favour the likelihood or at least plausibility of the proposition. Attested exx. are 7.8.1, 35.5.2, 120.2.5, 162.17.4, 162.20.1 (twice). In addition, /a/G without /muga/ are these: 5.15.5, 7.12.1 ("maybe it's you'"), 10.11.3/4, 13.11.3/4, 13.35.4 (with /yaga/), cf. preceding section), 18.9.5, 18.10.5, 20.16.2, 26.17.1, 62.1.5, 69.14.3 ("How about a fight?", 69.15.1, 71.8.2, 119.1.5 (with elements in languages which require it for non-eyewitness reports; other hand, /a/G is not comparable to high-frequency "evidential" elements in languages which require it for non-eyewitness reports; hence we have only about 25 exx. of /a/G in NMET.

/muga/ is more difficult to interpret than /a/G, mainly because there are differences between its meaning when used alone and its meaning in combination with other particles. We have just mentioned /a/G /muga/ 'maybe' (or 'it could be that...') with textual exx.; here the particle meaning is provided by /a/G 'maybe'. In addition, there is a combination /yagamuga/ indicating mistaken recognition or misleading appearance (hence translatable as 'thinking [incorrectly] that it was a... or 'it seems-[a]-ed (false)ly] that...'); we have mentioned this in §12.7 (the exx. are 13.10.1, 21.2.1, and we may add MT 53 with similar meaning).

The exx. of /muga/ by itself, however, seem to lack this dubitative or false-identification sense. In 163.3.1 ("sounds like the car is coming up") the proposition is less uncertain than my gloss might suggest. In a number of other exx. there does not appear to be any uncertainty at all, and /muga/ may be translated as 'indeed' or 'even', acting as an emphatic particle (often indicating surprise that the event occurred rather than doubt about it). The sense in these exx. is 'dubitative' in the special sense that the event was not expectable in advance; 7.4.1 ("she [surprisingly] concealed the food'", 24.9.1 ("they had that woman as their mother-in-law [taboo relationship, hence they should not have been interacting with her'"), 16.1.4 ("he was going along killing crabs, in an old bark canoe [not a modern wooden canoe], paddling along'", 49.5.4 ("devil was chasing them, they perched in tree, they had put body paint on each other indeed'", 47.16.5 ("[All right, we'll go']"). 47.19.5 ("difficult to interpret, apparently 'indeed' or rather] indeed tomorrow, Wednesday, I'll go'", 161.19.3 ("Box! Did we do a lot of loading'"), 162.4.2 ("Moon stood here indeed, to the west'"). The exx. from Hughes' texts (MT 19 and 21, TNT 1) also seem to express surprise but the syntax is not clear in two of the cases.

There is thus a resemblance to confirmative /yaga/ and /n/ubinta/ (§12.8). However, these two particles tend to be used when the event or object in question is suddenly manifested (usually visually), /muga/ involves a similar forceful assertion but has nothing to do with sudden manifestation.

12.12 /yaga/.

This particle occurs about 35 times in NMET and a handful of times in Hughes' texts (MT 7 and 11, TNT 5 and 7). It is used as an apparently optional adjunct to specifications of identity or location, and to interrogatives (mostly WH rather than yes/no); it also occurs in Similative phrases ('like X', 'similar to X'). It allows no affixes and has the same form in negative contexts (18.6.4, 42.5.2).

The interrogative cases in the texts include some where /yaga/ is used by itself (with final rising intonation), in contexts where the explicit interrogative would be 'where (1a...)?' or 'how far away (is...)?' (1.4.4, 2.3.2, 2.3.4). Other exx. involve an additional /ari/ or /muga/ 
£under if you went his way'"). On the other hand, /a/G is not comparable to high-frequency "evidential" elements in languages which require it for non-eyewitness reports; hence we have only about 25 exx. of /a/G in NMET.

§12.10, §12.11

§12.11, §12.12
69.4.4 ("How about it, do you want a spear?", with yes/no interrogative particle /yaga/) §13.13, 161.2.3 (also /yaga: yaga/ apparently in yes/no question, but passage is broken).

In noninterrogative contexts, /yaga/ accompanies an expression (usually imperative) specifying identity or location (and possible answers to WH-interrogatives). The exx. coded in this fashion are 3.7.7/8 ("you are a thief" with demonstrative; for similar exx. from variants of the same story see 5.18.4, 5.19.2/3, and TNT 7), 13.27.4 ("he heard them say its name, barracuda [though pretending not to]", with particle /araga/ 'suddenly' §12.7), with negation 18.6.4 ("it is not an island, [it is] mainland", with /yaga/ in first part), 18.13.7 ("[it was] people [who shouted]").

20.5.4 ('this is us' with /-waj/ form of pronoun, §6.9, and demonstrative pronoun with /yaga/ between them; for similar exx. with /-waj/, Emphatic pronoun see 20.6.2, 20.10.2, 20.14.2, 20.15.5), 42.5.2 ("there is nothing", somewhat broken segment), 100.4.2 ('this one, long ago they liked it'), and 162.11.1 ("there they all stand"). Some other exx. which could possibly be construed in this way are 11.12.3 ('Crow now has black on his back'), 69.16.3 ("we did [that] to it, we discussed it"), 103.2.1 ("they eat it, it is over that way"), 109.4.5 ("then we went with it", [in the shade we ate it]), and 162.6.4 (with particle /yiga/ 'indeed' §12.8). In some of this last list of exx. I have difficulty construing the sense of /yaga/, and it may be that in some instances it merely reinforces the verb rate rather than focusing attention on the identity of a referential NP and a predicate (including WH-interrogative) or other focal expression. However, this is only an approximation, and it may be that in some instances it merely reinforces the verb.

While it is difficult to identify a clear function for /yaga/ in this list of exx., there are a number of exx. where /yaga/ occurs by itself or occurs finally or initially in the clause. In addition, /yaga/ is optional (i.e., presumably emphatic) in the interrogative, identity/location, and similarity expressions where it occurs, and indeed occurs in much less than half of the total of such expressions in the texts.

Functionally overlapping particles include /yagu/ (§12.10) in some of its uses (recognition/appearance) and /yiga/ (§12.8), though the overlap is minor in each case. For explicitly interrogative particles see §13.1.

12.13 Similative /nu:njju/ 'like, as'. This stem usually occurs with no affixes, but unlike the true particles it sometimes shows morphology characteristic of an adjectival noun (NAdj, §4.2). In NAdj function it is most often reduplicated as /nu:njju: /nu:njju/ and is often in 'progressive form with intransitive nominal prefix, as in /nu-njju: /nu:njju/ 'they are equal' (translatable in context as adverb 'reciprocally, equally') 78.1.7 (cf. 73.3.4, and with compound initial 17.14.5). For other derivatives see the dictionary under /nu:njju/.

On the other hand, /nu:njju/ appears to act as a particle (phrase- or clause-initial) in constructions involving similarity. With noun X, the full similative construction is /nu:njju NC-X-yi:/ with Similative case suffix /-yi:/ added to the noun (which usually has a NC prefix, for nonhuman nouns often in Punctual form, §4.8, 13.13). However, this may be appropriated to /nu:njju NC-Xy:/ or to /NC-X-yi:/, since either /nu:njju/ or /-yi:/ alone is sufficient to indicate the sense. Exx. with /nu:njju NC-X-yi:/ are 10.15.6-7, 13.8.2, 88.1.3, 112.6.2-3, 113.2.1-2 (with demonstrative intervening).

Likewise, with an inflected verb Y (including nominal prefix and inflectional suffix) we can get /nu:njju Y-yi:/ 'just as...', hence /nu:nwara-ga/-na abu /nu:njju ni-/gni wusa/-rung ga-ma-yi/ 'he looked... [i.e., could see] then, like this[place] they-look[can see]'. 10.12.5-6. Exx. of /nu:njju/ without /-yi:/ suffix are 14.1.1 ("[place]", like [place2]) and 113.6.1 ('we ate [roots of] /wu:njju/ plant, like whatchamacallit, [like] potatoes'); here the punctual form of the prefix (in 113.6.1) implies covert presence of case suffix. There are also exx. of /nu:njju/ at the beginning or sometimes the end of a clause, translatable 'so that' or 'just as': 13.26.2 ("...just as they hid [it] from him, he hid [something] from them"), 13.35.3 ("...two keep your eyes shut, while I, i.e., so I can spear it"), 14.9.2 ("...they acted like those kids, da").

A specific subordinate clause which /nu:njju/ may be associated with (aside from verb with /-yi/), is that with Purposive suffix /-yungguyun /nu:njju/ on the predicate (or other constituent); 4.8 ('to take the rope') so that I will know', 69.13.2 ("we taught each other so that we all knew it", though here the full partitive construction is at the end of the latter clause and may mean 'equally' as an alternative to 'so that'), and 89.2.2 ("he will spear the policeman, so that they will not chase him, and give him trouble").

/nunjju/ occurs in the /nu:njju X /nu:njju Y/ construction, literally 'like [from] X [i.e., here] and [over to] Y [i.e., a designated point some distance away]', used in indications of approximate absolute distance; for discussion and exx. see 13.7-8.

/nunjju/ can also be used in the expression /nu:njju: - a-yan/-, literally 'like what?' but used (as a rhetorical question) to mean 'lots of, or a great quantity of [something]', Exx. are 99.5.3, 95.1.3, 97.3.2/-yung/-yungguyun /nu:njju/ (cf. discussion of /yan/-, §13.3). nunjju, in this sense, retains its covert status as NAdj (rather than true particle) occasionally even when used in contexts of similarity or purposed goal. In 65.15.1 we have Purposive case suffix /-yungguyun/ attached to /nu:njju/ itself rather than to the predicative expression which follows (and which indicates the goal): /nu:njju: yungguyun/, /numbunny=nalurbur-bu/- [so that you [PL]] will all be right'. True particles never take case suffixes or other affixes. (However, I can cite no exx. of /nu:njju/ meaning 'like' or 'so that' showing NC prefix or postposition on /nu:njju/.)
12.14 /arbidi/ 'anyway' (noun).

This element is morphologically a noun, specifically an NAdv (§4.3). We discuss it in this chapter since its grammatical function is similar to that of the other true particles, and because there is no other obvious clause to put it in. The gloss 'anyway' is to be taken in a maximally broad sense, and in particular contexts we can translate /arbidi/ as 'any kind', 'in no special way', or 'indiscriminately'. In all cases the point is that some (explicit or implicit) restriction is suspended.

Exx. showing MC prefix /ana-/ in negative or other contexts: 68.1.6 (pos.), 106.4.2 (neg.), 106.5.5 (neg.), 71.16.2 (neg.), 117.6.6 (neg.) In 117.6.6 it might seem that unprefixed /arbidi/ is in a negative clause, but actually it is logically part of a positive clause. /arbidi/ also co-occurs with postposition /-w2ugij/ 'still, only' (§12.21), as in 73.7.3, 87.1.6, 112.3.3, 117.6.6. We have /arbidi-yin\emph{um}/ with Relative case suffix (§4.30) in 68.2.3.

The contexts in which /arbidi/ occurs can be represented schematically as follows (we include the exx. with affixes just mentioned): 10.7.3 ('she poked around in mud indiscriminately [i.e., not directly at the ant']), 57.3.2/3 ('anyone can hear it', or 'they can hear it freely'), 68.1.6 and 68.2.3 ('we do not sing secret ritual songs [in public], but we sing public clan songs freely'), 71.3.2.1 ('we do not die without reason'), 73.7.1/3 ('nowadays young people behave however they like'), 84.1.3 ('they can kill dogs freely [if the dogs do not have ritual names]'), 87.1.6 ('they are called by any name [e.g., nicknames instead of true names]') 106.4.2 and 106.5.5 ('they do not just butcher it any way [there is a special way to do it]'), 112.6.2 and 112.8.2 ('now they butcher it as they wish'), 118.1.3 ('they distribute it to whoever they want'), 117.2.4 ('tree sp.', tree sp.), any kind [of paperbark tree], tree sp.), 117.6.6 ('they didn't cook [NAJ], just ate it as it was [without cooking]'), 119.2.6 ('they just mix them together [not sorting them]'), 134.4.3 ('one type of honey bee] just goes into the [hole in the] ground [i.e., doesn't build nest in tree'], 156.3.5 ('they just spread it out flat, not putting a hole [opening] in it').

Note the variety (and complexity) of English translations in context; the Nunggubuyu term serves as a very general indefinite element. For additional derivations see the dictionary entry.

12.15 Enclitic /yamba/ 'because'.

This is a relatively common particle; I count just over 50 exx. in Nunggubuyu. The meaning is identical to that of English 'because' (with co-occurring clause), or less often 'because of' (with co-occurring noun). The distinction between 'because' and 'because of' is probably syntactically meaningless in Nunggubuyu, since while English 'because of X' is formally an adversative phrase bound to the matrix clause, in Nunggubuyu such an expression (/X yamba/) can always be construed as a separate clause with X as (nonverbal) predicate. Thus in 106.4.2 /yagu gugu yamba/ 'because of the water [gugu]' is syntactically construable as 'because [there is] water'.
Personal pronouns may, however, function as constituents and thus have /yamba/ cliticised to them; the pronoun is clause-initial in this situation but is not necessarily focal. Exx. are 29.13.4 after Imperative pronoun in /-mji/, 79.2.3 after simple pronoun, and 90.2.6 after simple pronoun.

However, our second-position-after-constituent rule for the location of /yamba/ does not always work, even after specifying that (non-negative) particles are not constituents in this sense. There are a certain number of textual exx. where /yamba/ directly follows the verb or other predicative nucleus even when this is noninitial in its clause (and when there is no conspicuous pause before this nucleus); there are some exx. where /yamba/ seems to have been put at the end of the whole clause; and there are one or two other difficult exx.

Position after (noninitial) verb or other predicate: 13.40.4, 15.14.4, 28.6.3. Position at the end of entire clause: 97.22.3, 66.5.2 (here main clause is in English, so there is a reason for keeping /yamba/ separate), 73.6.2, 90.2.5 (despite punctuation).

In 121.3.6, /adaba waru-munu-mana-yin'yu marya-wugija yamba ya-r1 ni mnu-mu-nu-yin'yu/ ('now because we eat [mnu-] food [marya-] of white men [munu-] here [ya-r1]', it could be argued that /yamba/ really is in second position since particle /adaba/ 'now' is not a constituent; this involves taking /waru-munu-mana-yin'yu/ white men as forming a constituent along with the possessed noun /muryu-/ 'food'. However, Relative (including genitive) nouns with /yin'yu/ certainly do not consistently combine with possessed nouns to form close-knit NP constituents, and this particular ex. could be rephrased with, say, the Relative noun following /marya-wugija yamba/, at least in another context where the focus was a little different.

In 98.3.5 ('/jangu:/' they-say because', i.e. 'because they say /jangu:/'), it appears that the direct quotation is disregarded and /yamba/ 'because' is put after the main verb. In 16.6.2 we have the unusual combination of /yamba/ with a WH interrogative /yin'yu/; the sense seems to be 'because you have killed [and eaten] something' with /yin'yu/ having an indefinite rather than directly interrogative function.

There are no high-frequency other elements meaning 'because' or 'because of', However, case suffix /-miradhu/ may mean 'resulting from' (§4.28), and it is occasionally used with verbs as a subordinator (§16.6).

12.16 Emotive exclamations: /aduga/, /ar'jawalayun6/. /aduga/ is an exclamation of pleasure and surprise, used as an affective noun with children. It does not occur in the texts but was observed in actual interactions.

/ar'jawalayun6/ 'poor fellow' is an exclamation of pity (e.g., for someone who has just died) or of fond, nostalgic reminiscence (regarding someone long dead, or seeing someone after a long separation). It was heard frequently, but does not occur in NMET. Hughes' texts have two instances (TNT 9 and 32), transcribed by him as "nangjawalayun6" and "anjjawalayun6" (a "g" should presumably have been added at the end of the second transcription), which would be /an'jawalayun6/ with reflexored /j/. I heard the form as /an'jawalayun6/. This form is used as an exclamation rather than as a regular NP within a clause, and thus lacks nominal affixes (in my data and the textual exx.).

12.17 Terminal particle /wi:ya:/ 'that's all'. The particle /wi:ya:/ is commonly used to indicate the conclusion of a narrative or conversation. It may take the special lengthening and vocalic coloring of ordinary words used as interjections (see phonological rule P-9), and become /wi:ya:/ or /wi:ya:/; this is now regarded by Nunggubuyu as their equivalent of English good-bye.

There are many great exx. of /wi:ya:/ in NMET, since it was often used by narrators to indicate that the story was finished (so that the tape recorder should be turned off). A few exx. show co-occurrence with /adaba/ 'now' (§12.3) or /yin'yu/ and (§12.4), are 2.6.5, 9.13.6 (/wi:ya adaba/), 10.18.5 (11.9.1 /wi:ya /adaba/), 11.12.5 (/wi:ya adaba/), 13.18.2, 14.19.5, 16.23.5, 17.16.5, and 18.23.5 /wi:ya adaba/. For the 'good-bye' sense see 18.16.3-5, 20.14.7, 20.15.8, which are within quotations.

For /wi:ya/ indicating that some activity (other than telling a story) is over, see 9.12.4, 18.22.3, and 41.22.1; these occurrences are within quoted segments.

These are only a few of the many textual exx. which could be cited. It should be noted briefly that some neighboring languages make extensive use of the 'that's all' particle linking paragraph-like discourse chunks in narratives (Dhuwal bili, Mara guda, etc.), often occurring as an unstressed clause-final enclitic or as a clause-initial conjunction. This usage is not found in Nunggubuyu.

12.18 Affirmative particles: /yao:/, /1/. There are two particles which mean 'yes:', either confirming a fact (answering a yes/no question) or indicating acceptance/assentience to a suggestion or imperative. One is /yao:/ or /yo:/, which is always pronounced with the [o] vowel characteristic of interjections ([o] quality of the vowel).

It is debatable whether this is a fully traditional Nunggubuyu form or whether it came in by diffusion. The form is used in a number of local Aboriginal languages and also commonly in the local English creole, where there is another variant /yowey:/ (my feeling is that the form /yo:/ was a regionally widespread form which was used in Nunggubuyu prior to white contact, but I am not certain). A few exx. of /yo:/ or a variant are 11.5.3, 12.4.6, 12.21.5, and 20.7.3. Creole /yowey:/ occurs in 20.18.1. In a text narrated by a Mara-Nunggubuyu bilingual who had lived farther south much of his life.

The other form is /1:/, pronounced with nasalisation (which does not otherwise occur with vowels in Nunggubuyu except perhaps as a
12.19 Self-correcting /gadahl/. This exclamation is used to indicate that the speaker has made a mistake; it is normally followed by a correction. It can thus often be translated as self-correcting ‘I mean...’, but the Munggubuyu form has no syntactic relationship to the correction which follows.

In 12.7.3 we get /gadah: gadah: gadin: showing (occasional, not frequent) repetition of the particle for emphasis. In this particular textual ex., we can translate ‘Oops!’ following an (ostensibly) accidental physical movement. Most textual occurrences, however, involve verbal rather than physical mistakes; a few of the many exx. are 10.14.2, 13.9.2, 13.12.3, 13.5.5, 16.18.1, 16.19.3, 20.2.3, 21.9.5, 25.6, 29.11.4, 29.12.5, 40.6.2, 40.11.1.

A stronger expression indicating that speaker (or anyone else) has erred involves a verb like /gadargi:/ ‘to miss’ or a compound like /mil-gadargi:/ ‘to miss word’, ‘to get word wrong’ (25.12.5). /gadin:/ is quite distinct from /wani/ and variants, ‘whatchama…call’, which is used when the speaker is trying to think of a word or name but can’t find it. See §13.10.

12.20 Exclamations: /gac:/, /way:/, /gay:/, /ga:/, /gagay:/, /gagayl/.

In this section we mention a few interjections used to indicate surprise, danger, etc.

Particle /gac:/, exhibiting [c]-coloured ending (see phonological rule P-39), is used among persons walking together (but some distance apart) in the bush as a recognition signal. One person uses it, and the others (who are not far away but may be out of sight due to vegetation or some obstruction) answer with the same form. Less often the form is just /get/. An ex. is 32.6.4; see also 5.2.1, 5.1.4, and 5.2.5 with vocative kin terms alongside (child lost in bushland vainly calling out to locate parents).

In 14.7.2 we have /way:/ as an exclamation of surprise (and possibly fear) at the instant of suddenly noticing other persons present. It is possible that /way:/ here is a variant of the same element.

Particle /gay:/ occurs in 14.18.2 as lengthened /gair:y:/ as the mother (on shore) desperately tries to call to her daughter (who is being kidnapped by two men in a canoe); it seems to involve both the attention-getting of /gai/ and a note of urgency/danger.

§12.18 to §12.20

Particle /gay!/ occurs in §2.6.4 as a standardised ritual shout; it occurs in 18.9.4 as well with unclear function. There are, of course, a number of other ritual shouts (used to punctuate segments of ritual singing or orating, or for other purposes), and we will omit discussion of them here; see dictionary s.v. /jangu/!, /bygin:/, /byv'/, /byv'/, /byv'/, /byv'/.

In 25.1.1, we have an exclamation /gagal:/ used as a man suddenly realises he is in the presence of his tabooed ‘mothers-in-law.” It may really involve a kind of ingropmtrompt stammering rather than a conventional exclamation here.

Use in §21.9.3 we have three rapidly-repeated instances of /gagay:/, ‘ouch!’, an exclamation of pain.

12.21 Postpositions: /-w2ugij/, /-w2ugij/, /-w2ugij/, /-w2ugij/.

A postposition is a suffix which occurs in final position, following a word which is already fully inflected. It is like an enclitic (cf. discussion of /yamba/, [§12.15]), but differs in that phonological rules may apply at the boundary. Thus /-w2ugij/ and /-w2indiyaw!/ change /w2/ to /b/ after stop or nasal by Hardening P-18, /h/ becomes /h/ by the same rule and /-hain/ and the suffix-initial /n/ of the other postpositions often induces deletion of a preceding nasal like /-n/ by Nasal-Deletion P-30. By contrast, the /y/ of enclitic /yamba/ ‘because’ is not affected by the preceding word.

Postposition /-w2ugij/ ‘still, only, nothing but’ is quite common with both nouns and pronouns, where the meaning is often exclusive ‘only’, and with demonstratives and verbs, where the meaning is ‘still, continuously’. For example, /-w2ugij//yama/ (for personal pronouns §6.13), for demonstratives §7.30. The postposition cannot be added to other particles, except negative /yagi/ (and non-particle negative word /wari/).

/-w2ugij/ is also very common with verbs (not exemplified in previous sections); I count about 35 instances with verbs (not including predicative NAdj) in the first 200 pp. of NMET. A few exx. are 1.5.8 (‘...’ said only’, or perhaps more idiomatically here ‘...’ said just like the other had said”), 1.6.6 (‘he went in the direction of the dirtied water, he was still going along’), 7.10.2 (‘we are not full, we are still hungry’), 7.10.3 (‘it got dark and she was still unaware of what had happened’), 13.4.2 (‘they[ants] always do that’ or ‘they kept doing that’), 13.26.1 (‘he still pretended not to notice them’), 14.4.3 (‘she kept sitting there’), 14.13.5 (‘she kept going along with it’), 14.16.1p. 101 (‘they were still paddling’), 16.20.1 (‘they kept listening’).

Because the sense is often ‘still!’, /-w2ugij/ tends to be added to verbs in Continuous aspect (for Past and Future, which distinguish Continuous from Punctual aspect). However, there are a fair number of cases involving /-w2ugij/ on a punctual verb: 1.10.4 (‘he came out and gave [the boys] back to the people’), 16.14.2 (‘he looked and then he was brushing; he got back up’), 21.7.3 (King-Brown snake [encountering Python] suddenly coiled himself back up and retreated’). If I interpret these exx. correctly, /-w2ugij/ here
indicates return or retreat to a former position (note that there is a similarity to the meaning 'still', the difference being whether or not the position/action is uninterrupted).

/-w2ugij/ is not very common in negative contexts. A form like /wa:='Ei-/ /-w2ugij/ in the sense 'there is none, it is absent' can take /-maga:/ to form /wa:='Ei-w2ugij/ 'there is still none'. /-w2ugij/ can be added to /wa:='Ei/ or /yagi/ as negative elements with other constituents or a predicate in their scope, but the combination is infrequent. In 47.22.7 we have /-w2ugij/ being added to the inflected verb rather than to /wa:='Ei/ ('I regularly did not listen [to myths of other clans than my own]').

In general, it can be said that /-w2ugij/ is added to the verb (or other predicate) when logically encompassing the action or state designated by this predicate. When it is logically associated with a particular constituent (as in 'I eat only vegetables'), it is added to that constituent. It may also be added to two or more words in the same clause (e.g., /-maga:/ attached to noun or demonstrative).

Other elements in the language which have roughly overlapping functions may be briefly mentioned. Continuous aspect in verbs, especially with initial reduplication (rule P-2), is related to the sense 'still, continuously' of /-w2ugij/. For the sense 'back' (reverting to former state or location), cf. Retrospective Persuasive case suffix /-a/wij/ 'back at/through' (§4.23). Cf. also various indications of discourse-anaphoric status in the demonstrative system including Anaph root (§7.1). Concrete suffix /-u/ (§7.6), and Absolute /-yun g/ (§7.7). Relevant lexical items include NAdj /dhagij/ 'same (as before)' and some uses of Pron=NAdj-maga:/ with pronominal prefix (B series as usual with Present Negative). Thus

In 19.9.3 we have two similar exx., though one word with /-maga:/ 'they[meat ants] are not few' (i.e., they are abundant) 13.6.4. Thus

As compared with the 3 cases of predicative NAdj and the 6 cases of Past Potential clauses just mentioned, we have 67 instances of /-maga:/ in what I will call its narrative function. In this (optional) usage, /-maga:/ is added to a verb or other predicate, occasionally to some other constituent, in a clause which is not specifically foregrounded-as discussed earlier and is typically either a repetition (echo) of a preceding clause setting up a subsequent new (foregrounded) predicate, or a clause functioning as one in a series of (usually identical) repeated clauses (with no reference to any following event). This type of echo clause is typically expressed in Nunggubuyu by a verb in Continuous aspect (e.g., 'He sat down[Punctual]. He was sitting...[then] he got [Punctual]'), and often has stylistic lengthening. Accordingly, /-maga:/ in narrative usage correlates very significantly with Continuous aspect, often additionally with reduplication marking prolongation or repetition and often with stylistic lengthening. Indeed, I can find no ex. of narrative /-maga:/ with Punctual verb, as compared with 30 instances with unreduplicated Past Continuous verb and 29 with reduplicated Past Continuous verb (there are also 5 with negative NAdj, which do not mark aspect, and 3 with /-maga:/ attached to noun or demonstrative).

The exx. of /-maga:/ in counterfactuals (§16.7) are these: both protasis and apodosis in 164.3.5 ("if the ground were hard, we would go by truck", with /-maga:/ in the apodosis added to the noun 'truck'); with /-maga:/ in the protasis added to the noun 'hole' ("if they had dug it, the houses would have been big"); with apodosis in 120.6.2 ("if it had gotten into their eyes, they would have been permanently unable to see"); with the apodosis involving a predicative NAdj 'permanent' with /-maga:/ and also /-maga:/ added to Negative particle /-yagi/ 'preventing see'.

Another Past Potential form with /-maga:/ in the same clause in the sense 'should have' (closely associated formally in Nunggubuyu with counterfactual conditionals) is found 168.7.2 ("we should have spoken a different language to you").

While the usage of /-maga:/ with Present Negative of predicative NAdj, and with Past Potential verbs (chiefly in counterfactuals), is grammatically significant, these two types account for only a small fraction of the total number of instances of /-maga:/ in the texts. Compared with the 3 cases of predicative NAdj and the 6 cases of Past Potential clauses just mentioned, we have 67 instances of /-maga:/ in what I will call its narrative function. In this (optional) usage, /-maga:/ is added to a verb or other predicate, occasionally to some other constituent, in a clause which is not specifically foregrounded-as discussed earlier and is typically either a repetition (echo) of a preceding clause setting up a subsequent new (foregrounded) predicate, or a clause functioning as one in a series of (usually identical) repeated clauses (with no reference to any following event). This type of echo clause is typically expressed in Nunggubuyu by a verb in Continuous aspect (e.g., 'He sat down[Punctual]. He was sitting...[then] he got [Punctual]'), and often has stylistic lengthening. Accordingly, /-maga:/ in narrative usage correlates very significantly with Continuous aspect, often additionally with reduplication marking prolongation or repetition and often with stylistic lengthening. Indeed, I can find no ex. of narrative /-maga:/ with Punctual verb, as compared with 30 instances with unreduplicated Past Continuous verb and 29 with reduplicated Past Continuous verb (there are also 5 with negative NAdj, which do not mark aspect, and 3 with /-maga:/ attached to noun or demonstrative).

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Another Past Potential form with /-maga:/ in the same clause in the sense 'should have' (closely associated formally in Nunggubuyu with counterfactual conditionals) is found 168.7.2 ("we should have spoken a different language to you").
repetitions of a Past Continuous verb ('it went in[hole]') indicating rapid repetition of the action, and with an immediately preceding NP repetition /-gara-waj a-gara-waj/ 'in hole, in hole'.

It is obvious that all of these instances of narrative /-maga:/ occur in their association with Continuous aspect (not a single Punctual ex.), and in their association with non-foregrounding of the clause due to status as part of a series or more generally as a backgrounded clause used to set up and frame a following clause immediately (e.g., Future aspect event). In addition, all of these cases of narrative /-maga:/ occur in certain types of texts, and are predominantly associated with certain narrators who use /-maga:/ as a stylistic feature. In NMET texts only 4 out of 67 although they take up only about 42% of the volume (by pages). The remaining 38% of our cases occur in only three of the non-myth texts 46 to 71, namely texts 119, 143, and 157 (I may have missed a handful of other cases but even with allowance for this the distributional pattern is striking). Text 119 has the 5 exx. with predicative NAdj in a single passage involving multiple repetitions of the same clause (indicating actual repetitions), the speaker being a man who made extreme usage of narrative stylistic devices in many of his texts; texts 143 and 157 are two of the four texts contributed by the only female speaker recorded, who spoke rapidly and with great fluency and seems to have been prone to use narrative /-maga:/.

Our next postposition is Evitative /-ma/=. This is typically used with an already Evitative verb form ('lest...'), either being added to the verb or going on some other constituent. Since in evitative sense, the Nonpast-, usually Future Negative) can be used in place of the Evitative verb form, /-ma/ is not always redundant (Nonpast, plus /-ma/ is interpreted as evitative semantically). In addition, /-ma/ could be added to a predicative NAdj or demonstrative pronoun (word classes which have no Evitative inflectional form), and would not be redundant in this case either. For more discussion and exx. see §12.7 (for Evitative inflectional suffixes in verbs see the paradigms in Chapter 11).

Postposition /-w_indi:yun/ 'really' is an emphatic morpheme which appears up and then on verbs or other words. Unlike /-ma/ and Evitative /-ma/ which can be added somewhat arbitrarily to the verb or to any other conveniently available word (in either case having the entire clause as their scope), /-w_indi:yun/ is logically associated with the word it is attached to. /-w_indi:yun/ with verb is found in 12.7.5 (imperative '[This time] really close your eyes!'), i.e., without pecking, 17.7.1 ('He went through all the way'), 69.9.5 ('they really riddled him with spears'), 162.5.1 ('now the dog was really yelping'), and from Hughes' texts two in MT 22 (including one Imperative) and one MT 31. The instances not involving suffixation to a verb are 97.1.2 ('it is] really true', with noun 'truth' perhaps in predicative function, 98.3.6 ('it was] real fat', i.e., deliciously fatty meat), and 161.4.2 ('a real big one [i.e., flight]'). There is no other morpheme meaning 'really, very', emphasising extreme or maximum status. For this reason, the relatively small number of textual exx. of /-w_indi:yun/ may seem surprising. However, there are a number of other devices available for marking this kind of emphasis. First, for a number of key adjectival concepts ('big', 'tall', etc.), there are suppletive stems which automatically emphasise maximum or extreme quality (cf. English huge, gigantic, tiny). Secondly, for verbs (i.e., actions) it is possible to achieve this emphasis by repetition, use of aspectual forms implying completion, use of some particles like /araga/ 'suddenly' (§12.7), or use of a follow-up predication explicitly marking finality ('he went along, he arrived').

The final postposition is /-hanu/ although we might have some reservations about classifying it in the same category as the other postpositions mentioned in this section. This element is an emphatic pluraliser and is sharply restricted morphologically and tends to occur in a small number of fixed expressions. It occurs primarily with nouns, and is discussed in this connection in §12.7. It is also attested (but rare) with demonstratives; see §7.30. We have no exx. of this morpheme with verbs and this combination appears to be ungrammatical; the derivational morpheme used with verbs to emphasise plurality is prefix /-wara/ or one of the other phonologically similar prefixes which we collectively label "Multiple" (§10.4).

In general, it is not possible to have two postpositions in the same word, so the question of relative ordering among postpositions does not (usually) apply. However, this is not absolutely true. We do have one exx. of the combination /-w_ugij/-ma/ 164.3.5 ('if the ground were still hard'), where /-w_ugij/- means 'still' and /-ma/ is used in connection with counterfactual conditional construction. It is likely that a much larger textual corpus would show an occasional similar example in which an "outer" postposition whose grammatical function applies to the whole clause (/-ma/ 'if', /-ma/ 'lest', or /-ma/ in counterfactual or narrative function) is added on top of an "inner" postposition whose logical scope is focused on the particular word in question (/-w_ugij/ perhaps also /-w_indi:yun/ probably also /-hanu/). Again, though, we observe the extreme rarity of such combinations in what is already a rather extensive text collection.
Chapter 13
Interrogatives

13.1 Yes/no particles: /yu:ga/, /aliyungl, /ala/.

Yes/no questions may be formed by adding an uninflectable particle to what is otherwise an ordinary (declarative) clause.

The most common such particle is /yu:ga/. It may precede the queried clause, may follow it (in this case often functioning as a tag question), or may occur by itself as a one-word question when the content of the query is obvious in context (cf. English 'Well, how about it?'). In addition, as we will see in the next section, /yu:ga/ may be added to a clause already containing a WH interrogative word. In general, /yu:ga/ is syntactically peripheral to the clause (if any) which it occurs with, and is often separated from it by a short pause. Occasionally it is best translated not as a direct question, but as an expression of the speaker's uncertainty ('I wonder whether...') or as an appeal ('how about it?).

Some textual exx. (other than those co-occurring with a WH word): 13.27.2, 13.28.1, 13.30.1/2, 13.31.1/3 (all of these so far meaning 'is it X?' with noun X), 16.16.1 and 16.11.3/6 (tags), 18.12.7, 18.14.2/5, 18.18.3, and 18.22.4 (tag-like requests for confirmation), 20.6.2 (difficult ex.), 20.6.5 (confirmation), 20.7.3 (apparently a tag), 20.8.5 ('is that so?'), 20.8.6, 20.10.6, 20.11.4, and 20.15.7 (these exx. unclear), 21.7.1 ('I wonder'), 34.5.3/4 (yes/no, or perhaps 'I wonder whether'), 34.7.4 (tag), 40.5.2 (yes/no), 69.2.4 ('how about it?'), 69.4.4 (yes/no), 161.2.3 ('how about it?).

The sense 'how about it?' (appeal) is not very common; see discussion of /ala/, below. Similarly, /yu:ga/ is not common with imperatives (i.e., future verbs with imperative force), since here also /ala/ is preferred, but Hughes has one ex. of /yu:ga/ with imperative (MT 12).

The particle /aliyung/ is appreciably less common than /yu:ga/, but is attested a number of times. It is similar to /yu:ga/ in meaning, but seems slightly stronger in force. In 11.5.1-3, for example, Crow asks 'Is this (/yu:ga/) a coodamor?', gets a negative answer, then asks 'Is it (/aliyung/) a coodamor?', and finally 'Is it (/aliyung/) a bandicoot?'. The nuance here is that the speaker is...
not merely asking for confirmation of a probably correct statement, as typically with /yu:ga/, but rather is quite unsure of the correctness of the queried statement. This analysis of the difference between /yu:ga/ and /aliyun/ is tentative. The other exx. of /aliyun/ in the texts are 28.6.1, 40.5.3, 143.11.2, 143.15.5, and 163.13.1, including a few which seem to act as tags. However, /aliyun/ does not seem to be used as a reinforcer for a WH word.

The particle /a/ is used after an imperative or a suggestion, requesting confirmation or approval from the addressee, and can be thought of as a pragmatic mitigator. It can be roughly translated as a tag 'all right?', as in 'sit down, all right?' or 'I will go now, all right?'. (More or less equivalent translations such as 'Why don't you sit down?' are also possible.)

This particle is not as common in texts as in ordinary conversations, but we can cite it in 10.4.3 (imperative), 11.6.6 (with 1SG future), and 20.17.6 ('let's sit down, all right?'). In 14.11.2 we find it in an atypical usage as a yes/no tag. Another yes/no tag, /n~/14.11.4, is not really a Nunggubuyu form but is used in some nearby languages such as Ritharrng.

In summary, Nunggubuyu does have some particles roughly with yes/no interrogative force. However, an exact correlation of these forms with English interrogatives is somewhat difficult. Syntactically, and to some extent pragmatically, the closest English parallels are tags (i.e., requests for confirmation, approval, or acquiescence for a statement, imperative, or suggestion). Moreover, /yu:ga/ in some contexts merely means 'I wonder...' and therefore does not always intend to evoke a reply; also, /yu:ga/ is frequently added to an already interrogative clause containing a WH word.

Attention is called to some other particles (Chapter 12) which are not primarily interrogative but have some uses which may involve the status of a proposition /ari/, /mu:ga/, /yi:ngi/, /yu:ga/.

13.2 WH interrogatives: general remarks. In the following sections we deal individually with several stems corresponding to English WH interrogative words (who?, what?, where?, when?, how?, why?).

In this initial section we discuss the status of these WH words, and their cooccurrence with yes/no particles (see above).

First, we make the observation that WH interrogatives are not always strictly interrogative in the sense of intending to elicit a reply. Somewhat roughly, we may interpret individual occurrences of WH words as either interrogative, indefinite, or dubitative. It is not suggested that these have sharp boundaries, or that it is always possible to categorise individual occurrences.

By indefinite, we mean expressions translatable 'something', 'somewhere', etc., indicating an entity, time, or place which is presumed to exist but whose precise identity is not known, and is (perhaps) not very important. By dubitative, we mean instances where the speaker is expressing his or her own ignorance of the identity ('I don't know what', 'I don't know where', etc., or perhaps 'I wonder what', 'I wonder where', etc.). The dubitative may verge on interrogative force, since an expression of speaker's lack of knowledge may imply a request for clarification by the addressee. For 'anything', 'anyone', etc., see /ari/ §12.11.

As a specific example, let us take /hal-n-argu 'when?' (§13.7) with verb /aniny-pa:/ 'he will go'. The simplest combination is: /hal-n-argu an-ya:-ri:/, which would often correspond to the English question 'When will he go?' (interrogative), though it could also be indefinite ('He will go sometime' or 'He might go sometime') or dubitative ('I don't know when he will go').

The status of the queried clause may become somewhat more precise by adding a particle. The particle /ari/ 'maybe' (§12.11) normally points to indefinite or dubitative functions: /ari/ hal-n-argu an-ya:-ri:/ 'He will go sometime' or 'I don't know (I wonder) when he will go'. The dubitative reading is probably best with /ari/ in most instances.

On the other hand, /yu:ga/ (§13.1) plus a WH word is most often (though not exclusively) interrogative in force, so /yu:ga hal-n-argu an-ya:-ri:/ usually means 'When will he go?', asking for a response. We have noted above that /yu:ga/ is not always strictly interrogative, but with a WH word this is usually the best reading.

For textual exx. of /ari/ see §12.11. Textual exx. of /yu:ga/ with a WH word are these: with /yangi/ 'what?' 11.5.1, 12.4.3-5, 27.4.2, 157.6.5, 168.6.1/2; with /yamini/ 'who?' 7.11.2, 20.5.5 with /yangi-mayi/ 'what place?' 20.5.5 (and with relative form of 'what place?': also 168.9.5). With /n-/ and /yangi/ (§13.3) 18.12.3, 20.6.3, 20.7.8, 20.12.5 with /n-/ and /yangi/ (§13.8) 99.12.3. We can also get /yu:ga/ with the interrogative verb /argi/ (§13.10), as in 34.5.2, suggesting that this verb belongs in the general WH word class.

13.3 /yangi/ 'what?'. Actually, the root /yangi/ is used for human 'who?' as well as for nonhuman 'what?', but the human forms have distinct affixes and are treated separately in §13.5. The compound /yangi-mayi/ 'what place?' is not exclusively interrogative in force, but with a WH word this is usually the best reading.

The simple form /yangi/ 'what?' is normally used with nonhuman reference, with allowance for the occasional fuzziness of the line between 'human' and 'nonhuman' (see §4.10). The form /yangi/ with no affixes is regular for subject or object of the predicat. NO prefixes are uncommon (though possible). Because in most contexts it is not certain which noun class the queried referent will turn out to be in, even the verb (which should otherwise mark NO or subject, and for transitive also object) does not usually specify the expected NO of the referent. Instead, /yangi/ is regularly treated as being in AN category, as can be seen most clearly by considering a transitive verb with 'what?' as direct object:

(13.1) yangi ni=na-ya:-argi

'What did he see?'

Here the form of the nominal prefix in the verb, /ni-/, specifies AN/AN direct object (Table 9-1).

(13.1) §13.2, §13.3
Textual exx. of /yan⁵¹/ with nonhuman reference are these:
11.5.1, 13.13.1, 13.13.3, 16.16.1/2 (ANAG concord for second occurrence), 27.4.2, 65.5.1 (ANAG concord), 157.6.5, 168.9.5 (along with /yan⁵¹-mayi/). Another ex. of ANAG concord is TMT 27.

Occasionally, /yan⁵¹/ may be used with human reference when the focus is not on an individual's personal identity, but rather on clan or moiety status or the like (cf. English 'What are you, a Tory or a Laborite?'). This seems to be the case in 168.6.1 'What are you?'. However, specifically human forms are more common (in Nungubuyu) even in such contexts.

Nonzero case forms of /yan⁵¹/ in common use are:

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumental</td>
<td>/yan⁵¹-mirī 'by means of what?'</td>
</tr>
<tr>
<td>Relative</td>
<td>/yan⁵¹-yni 'of/about what?'</td>
</tr>
<tr>
<td>Similative</td>
<td>/yan⁵¹-ylı 'like what?'</td>
</tr>
</tbody>
</table>

Use of NC prefixes with these case forms follows the pattern set by nouns: Instrumental /-mirī/ usually occurs with no NC prefix, while other nonzero case suffixes usually do take a prefix. In these interrogative forms, the NC prefix is the punctual ANA class form /a-/ (§6.7-8).

Other case forms like Locative /-ruj/ may well be possible in principle, but in practice do not seem to be in common use. Although I have no textual exx. of this, in elicitation it was possible to obtain forms of /yan⁵¹/ marked for specific NC category, used when the speaker knows the specific identity of the referent. In this situation, the speaker may use /yan⁵¹/ as an inflectable NAdj (§4.2), with intransitive pronominal prefixes (like those used with verbs, Table 9-1). Thus, for MANA class, the usual form would be /anya-mirī/ 'what?' with a sentient prefix of MANA class:

\[
\begin{align*}
(13.11) & \text{nya}yan⁵¹_l & \text{nia}na-na-n¥ & \text{what did he see?} \\
& \text{[it was] what?} & \text{ creative SA/NA} & \text{MANA} = \text{see-Pa} \text{P1}
\end{align*}
\]

However, if the reference is to past or present negative, or to past potential or future, we would get the B form of the pronominal prefix (see Table 8-3):

\[
(13.11i) \text{ana}yan⁵¹_l & \text{ani}na=na-yl & \text{what will he see?} \\
& \text{[it will be] what?} & \text{ creative SA/NA} & \text{MANA} = \text{see-NomPa2}
\]

This construction is really a double predication (e.g., 'It was what?, he saw it') which translates into English as a single clause; for parallels with predicative demonstrative pronouns see §7.4, and see also §§8.8, below.

Finally, we mention that /yan⁵¹/ occurs in a few idiomatic expressions roughly translatable as 'all kinds' or 'lots (of them)'. One is /n=un/ 'a-yan⁵¹/₁, literally 'like what?' (for particle /n=un/ see §12.12), but having the idiomatic meaning 'lots, many' (very emphatic) see 59.5.3, 95.1.3, 97.3.2/3, 139.11.3.

A similar emphatic expression involves /yan⁵¹/ preceded by the stem /algy/, which elsewhere means 'kinsman'. The whole is /algy-a-yan⁵¹/ with NC prefix before /-yan⁵¹/, or /algy-yan⁵¹/

§13.3 (13.11 - 111)
Other textual exx. of /yan^i/—un^/, some showing WARA concord, are: 7.11.1-5, 15.6.4, 18.13.8, and 20.15.4. Although /yan^i/—un^/ generally occurs without other affixes (for subject or direct object), it is possible to add case suffixes, and when this is done we usually get /wa:/ (WARA class prefix, punctual series) if there is no more specific NC marker. Thus of whom? ('whose?') with relative suffix /-yin^/ has a full form /wa-yan^i—un^—jix/ in. In practise, this form is often reduced to /wa—yan^i—un^/ 'whose?' with no overt case marker, but with the presence of the covert case marker implied by the use of the punctual NC prefix. Other case forms like Allative-Dative /wa—yan^i—un^—gu/ 'to/for whom?' are also possible (though not common in the full form and subject to the same surface loss of case suffix). Unprefixed /yan^i—un^—gu/ is also possible. There is a Dual form /yan^i—um—b/ used when the queried referents are known to be two, as in 'who are you two?'. Exx. are 20.7.7, 20.8.3, 20.11.2, 20.12.4, and 20.14.1 (all from one text). Agreement is normally MDu, if both referents are female, FDu. In nonzero case forms (with or without surface deletion of the nonzero case suffix), WARA prefix /wa:/ is possible, as in /wa—yan^i—un^—um—b:/ 'whose?'.

The P1 form /yan^a—yan^i^/ is used when the referents are known to be three or more in number: exx. are 15.7.7, 18.12.2, and 18.13.6. Concord is 3Pl or perhaps WARA (the two are distinguishable clearly only in demonstrative pronouns). The nonzero case form is /wa—yan^a—yan^i^/ 'whose?'.

In those forms involving suffix /-yin^/—un^/, /yan^i^—un^/, optionally undergoes a minor vocalic assimilation to /yan—un^—un^—/. 13.6 /-n^a^-argu/ 'how much?, how many?'

This stem can apparently function as an ordinary noun, or as a noun root requiring derivational NC prefix (§9,9), or as a NAdj taking intransitive pronounal prefixes and functioning as predicate. We defer until the next section the common compound /lhal—n^a^-argu/ 'when?'.

In 125.16.4 we have the nominal form /ana—n^a^-argu/ 'how many?' with inflectional NC prefix. In this ex. the question seems to be rhetorical, hence effectively 'lots of them' (cf. some uses of /yan^i/ discussed at the end of §13.3). However, in elicitation my informants preferred predicative NAdj forms:

\[
\begin{align*}
(13.v) & \quad nana=n^a^-argu \\
& \quad numa=n^a^-argu \quad \text{bandi=— 'how many do you want?'} \\
& \quad 2Sg—MANA—wan=Nonpa—x want? \quad \text{how many[MANA]} \\
(13.vi) & \quad ana=n^a^-argu \\
& \quad ban=ana=n^a^-argu \quad \text{bandi=— 'how many will you get?'} \\
& \quad 2Sg—MANA—wan=Nonpa—x want? \quad \text{how many[MANA]} \\
\end{align*}
\]

Note that the /n^a^-argu/ form itself shows a form of the intransitive prefix in Present, B form in Future (see Chapter 8). With the (more common) A form of the prefix, there is no surface difference (for the most common nonhuman nouns) between predicative NAdj as just shown and form with NC prefix, e.g., MANA class form /wa—n^a^-argu/ from /maa—n^a^-argu/. This partial ambiguity, along with the virtual absence of /n^a^-argu/ from the texts, makes it difficult to analyse the various formal possibilities adequately.

13.7 /lhal—n^a^-argu/ 'when?'

The temporal interrogative 'when?' is /lhal—n^a^-argu/; the only good textual ex. is 69.15.1 ('when will we[InPl] have a spear fight?'), but the form was often heard in conversation. The compound initial looks at first sight like /lhal—/ 'place, country', but I have difficulty making sense of the combination. Instead, I would think it is really /lhalN/ 'fireplace, firelight' with the initial nasal lost regularly before another nasal (rule F-30). The suggestion is that time of day is associated with the position of the sun.

The compound final is /n^a^-argu/, see preceding section.

13.8 Interrogative-demonstratives.

There is a set of forms (Table 13-1, below) functioning as interrogatives but which have some formal resemblances to the demonstrative pronouns and adverbs described in Chapter 7.

All of the forms involve the sequence /a—x—ga/, where X is some NC marker or Locative adverbial /-ji—/. X may be analysable into more than one morpheme, specifically in MDu /-w—li—/, FDu /-w—ru—/, and Pl /-w—ru—/, all of which involve a nonsingular morpheme /-yin^/—un^— which may be identified with the Nonsingular morpheme /-yin^/—un^— in pronounal prefixes (Chapter 9), cf. also demonstrative pronoun endings (Table 7-1). Some of the adverbial forms in Table 13-1 also have a case morpheme after /-ga—/.

\[
\begin{align*}
\text{TABLE 13-1} \\
\text{Interrogative-Demonstratives} \\
\end{align*}
\]

<table>
<thead>
<tr>
<th>a. pronouns</th>
<th>b. adverbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>M^S/NA</td>
<td>A—jia—ga/</td>
</tr>
<tr>
<td>F^S/F^S/ARA</td>
<td>A—jia—ga/</td>
</tr>
<tr>
<td>MDu</td>
<td>/-w—li—/</td>
</tr>
<tr>
<td>FDu</td>
<td>/-w—ru—/</td>
</tr>
<tr>
<td>Pl</td>
<td>/-w—ru—/</td>
</tr>
<tr>
<td>WARA</td>
<td>/a—w—li—/</td>
</tr>
<tr>
<td>ANA</td>
<td>/a—w—li—/</td>
</tr>
<tr>
<td>MANA</td>
<td>/a—w—li—/</td>
</tr>
<tr>
<td></td>
<td>/a—w—li—/</td>
</tr>
</tbody>
</table>

The compound initial looks at first sight like /lhal—/ 'place, country', but I have difficulty making sense of the combination. Instead, I would think it is really /lhalN/ 'fireplace, firelight' with the initial nasal lost regularly before another nasal (rule F-30). The suggestion is that time of day is associated with the position of the sun.

The compound final is /n^a^-argu/, see preceding section.

With the (more common) A form of the prefix, there is no surface difference (for the most common nonhuman nouns) between predicative NAdj as just shown and form with NC prefix, e.g., MANA class form /wa—n^a^-argu/ from /maa—n^a^-argu/. This partial ambiguity, along with the virtual absence of /n^a^-argu/ from the texts, makes it difficult to analyse the various formal possibilities adequately. 13.7 /lhal—n^a^-argu/ 'when?'.

The temporal interrogative 'when?' is /lhal—n^a^-argu/; the only good textual ex. is 69.15.1 ('when will we[InPl] have a spear fight?'), but the form was often heard in conversation.

The compound initial looks at first sight like /lhal—/ 'place, country', but I have difficulty making sense of the combination. Instead, I would think it is really /lhalN/ 'fireplace, firelight' with the initial nasal lost regularly before another nasal (rule F-30). The suggestion is that time of day is associated with the position of the sun.

The compound final is /n^a^-argu/, see preceding section.

13.8 Interrogative-demonstratives.

There is a set of forms (Table 13-1, below) functioning as interrogatives but which have some formal resemblances to the demonstrative pronouns and adverbs described in Chapter 7.

All of the forms involve the sequence /a—x—ga/, where X is some NC marker or Locative adverbial /-ji—/. X may be analysable into more than one morpheme, specifically in MDu /-w—li—/, FDu /-w—ru—/, and Pl /-w—ru—/, all of which involve a nonsingular morpheme /-yin^/—un^— which may be identified with the Nonsingular morpheme /-yin^/—un^— in pronounal prefixes (Chapter 9), cf. also demonstrative pronoun endings (Table 7-1). Some of the adverbial forms in Table 13-1 also have a case morpheme after /-ga—/.

\[
\begin{align*}
\text{TABLE 13-1} \\
\text{Interrogative-Demonstratives} \\
\end{align*}
\]

<table>
<thead>
<tr>
<th>a. pronouns</th>
<th>b. adverbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>M^S/NA</td>
<td>A—jia—ga/</td>
</tr>
<tr>
<td>F^S/F^S/ARA</td>
<td>A—jia—ga/</td>
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<tr>
<td>MDu</td>
<td>/-w—li—/</td>
</tr>
<tr>
<td>FDu</td>
<td>/-w—ru—/</td>
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<tr>
<td>Pl</td>
<td>/-w—ru—/</td>
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<tr>
<td>WARA</td>
<td>/a—w—li—/</td>
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<tr>
<td>ANA</td>
<td>/a—w—li—/</td>
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<tr>
<td>MANA</td>
<td>/a—w—li—/</td>
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<tr>
<td></td>
<td>/a—w—li—/</td>
</tr>
</tbody>
</table>
One significant formal feature of the forms in Table 13-1 is the usage of /-j/- not only as a Locative adverb marker (cf. demonstrative adverbs /ya:-jl- 'here', /da:-jl- 'there[Im]'), §7.12, but also as the NC marker for both M€g/NA and F€g/FNFA, (Table 7-1).

The basic sense of the interrogative-demonstrative pronouns is 'where in/are X?'. These forms are inherently predicative, and are thus most similar syntactically to predicative demonstrative pronouns (§7.2, §7.4). Unlike demonstrative pronouns, the interrogative-demonstrative pronouns of Table 13-1 do not have nonpredicative variants formed by adding additional NC prefixes.

The textual attestations of the interrogative-demonstrative pronouns in NMET all involve ANA class form /a-nl-ga/ 'where is it?', see 13.33.1, 14.11.2 (seems shortened form for /a-ni-ga-wuy/, cf. below), 15.8.3, 16.9.4, 20.10.6. Just as ANA class demonstrative pronouns can be used in opposition to 1st or 2nd person pronouns (§7.27), /a-nl-ga/ may be used to mean 'where are you?' or 'where am I?'. For 'where are you?' see /a-nl-ga/ in 18.14.4.

We cannot cite other textual exx. in NMET for the remaining interrogative-demonstrative pronouns, but WARA form /a-nl-ga-wuy/ occurs in Hughes' texts (TNT 5, MT 10), as does /a-ji-ga/ with MNW reference (TNT 9).

As with demonstratives, the pronouns in Table 13-1 require present tense positive context, with some allowances for special cases (see §7.4). To ask, 'Where was he?' or 'the like with past tense context, an adverbial form (Locative) is used. This is also the case with future sense, and we have a textual ex. of /a-ji-ga/ 'where' in such a context: 15.6.1.

The variant /a-ji-ga-ruj/ in the table consists of /a-ji-ga/ plus regular nominal Locative case suffix /-ruj/ (§4.25). The extra morphological weight caused by /-ruj/ here is 'next to' or 'just beyond', and is also the case with /-ruj/ added to a demonstrative Locative adverb (/§7.18/).

Ablative /a-ji-ga-/-la/ 'from where?' formally resembles the Centripetal adverbial form of demonstratives (/§7.15/), and has suffix /-ala/ instead of nominal Ablative /-gi/ (§13.10). However, there is no specifically Centripetal sense in /a-ji-ga-/-la/. Exx. are 20.6.2.2, 20.10.4, 20.14.4, 20.15.5, 20.9.1, and 20.12.3. An extended form /a-ji-ga-/-ya:/ with Absolute suffix /-ya:/ (used with demonstratives, see §7.7 and especially §7.9) is found in 26.1.2.3, in association with demonstrative /ya:-ji-/-ya:/ 'along here'. The combination /-ya:/ indicates a partial trajectory rather than just a point of departure.

The other important interrogative-demonstrative adverb is /a-ni-ga-wuy/ 'to where', which is formally similar to the Directional demonstrative adverbs in /-u-wuy/ (§7.14). Both types involve Allative-Dative case suffix /-wuy/ added to an ANA class pronominal form. Exx. of /a-ni-ga-wuy/ are 9.10.1, 14.11.2, 15.2.1, 15.9.7, 16.6.2, 16.8.1, 18.12.3/5, 18.14.1, 18.18.2, 20.4.6, 20.7.4, 20.9.2/7, 20.10.4, 20.11.5, 20.12.5, 20.13.5, 20.15.8, 26.3.2, 41.6.6, 41.19.5, and 41.23.1 (among others).

13.9 Interrogative verb /=yaminggari-/. The verb /=yamin^n/gari-/, variant /=yamin^0/gari-/, is used as an interrogative verb. It is intransitive in form.

There is no single way to translate expressions containing this root, but a gloss 'to do what?' is often appropriate, as in /=yamin^n/gari- 'what will we[Ind] do?' 13.15.3. However, such expressions are also used to elicit approval or confirmation of a suggestion, as in /=yamin^0/gari- 'What about Bickerton [Island]?' 161.13.1 (cf. 161.16.5, 161.17.3). In this ex., the verb has 23g as subject.

In addition to simple /=yamin^0/gari- (intrans.), there is a transitive derivative /=yamin^-gari-ja- 'to do what to [someone, something—direct object]'. This is formally the Causative, but in object-promotion rather than causative sense (§10.7). An ex. occurs in TNT 21.

13.10 /=wain^e/ 'whatchamacallit?'. The 'whatchamacallit?' word, formally a noun, is /=wain^e/ and is used as a filler while the speaker tries to remember a name or other noun. It is very common in the texts, and a grammar of the language is obliged to emphasise this. Since the word in question often turns out to be a basic vocabulary item, we suggest that Nunggubuyu speakers have a somewhat distinct psycholinguistic production strategy than English speakers and permit 'memory loss' more readily. Of course, this is largely possible due to morphological indexing, notably pronominal concord in verbs.

/=wain^e/ quite often takes nonzero case suffixes, and in general its case marking is based on that of the corresponding 'final noun', as a pronominal prefix and an inflectional suffix, with no accompanying constituents inside the clause (unless the subject is expressed by a separate NP as well). For example, /=yaminggari-ja- /§21/ may co-occur, however, with /=yamin^-gari-ja- /§34/.2.

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this is because the speaker may not know even the noun class of the "forgotten" noun; instead, when the speaker does try to anticipate, and puts a NCinfl prefix on the 'what's the name?' word, it turns out that he/she has guessed wrong rather frequently.

Exx. of /(w)a:ng/ can be found on many dozens of pp. in NMET. For example, in the brief text 24, we find it at 24.1.f/5/6, 24.2.3/4, and 24.3.2/6. An ex. with NCinfl prefix is /mana-wa:n/ 1.4.1 (a correct guess this time).

When the speaker really wants to express disgust with himself or herself for being unable to remember a name or noun, a stronger form /wa:n g yagu/, often pronounced /wa:n-g-yagu/ (an irregular extension of Hardening P-18), is used, e.g., §20.4.3, 157.6.5. A form /w)a:n-manamana/ occurred 32.12.1 but its exact meaning is hard to determine.

It is not possible to use /(w)a:n g/ predicatively as NAdj with pronominal prefix. There is also no special Dual or Plural stem form. It is also not possible to combine /(w)a:n/ with kin-term affixation (Chapter 5), or with specific affixes associated with personal pronouns (Chapter 6) or demonstratives (Chapter 7). There is also no verbalised form, say with Inchoative /-ma-/ (§10.8).

One formation which is possible is the use of a NCder prefix, creating a noun-class-specified form like ANA /u-~ang/ or MANA /ma-gan g/ (i.e., /uG-// or //maG-// + /ma//). These forms suggest that the base form is /w)a:n/, incidentally. Exx. of the NCder form are 13.19.4, 53.1.3. (For NCder see §4.7, §4.9.)

The use of /w)a:n/ presupposes the existence of a noun or name which should have been remembered (and is thus "definite" in a sense, though temporarily forgotten). As a result, there is some interchangeability between /w)a:n/ and usage of an Anaph demonstrative pronoun (Chapter 5) or with specific affixes associated with personal pronouns (Chapter 6) or demonstratives (Chapter 7). There is also no verbalised form, say with Inchoative /-ma-/ (§10.8).

There is weak evidence for a mostly covert distinction between derivational prefixes and cpd. initials, but the distinction does not coincide with the repartition between Chapter 10 and this chapter. We will note in §14.3 that in the sense 'to hit, kill', the stem is /=w u-/ with no derivational/cpd. elements preposed, but suppletive /=w adja-/ after cpd. initial. With derivational prefix, we get /=w u-/ directly after Benef /-aG-/, but /=w adja-/ directly after Mult /=w ara-/ suggesting that Benef is 'less' like a cpd. initial than /=w ara-/. (However, Recip /=w i-m ji-/ 'to hit each other' does combine with /=w ara-/.) Although we cannot use this criterion to determine the status of Comit /=w ji-/ or certain other derivational prefixes, there is at least a hint of a formal distinction between a) Benef, b) Mult, and c) cpd. initials, with Mult being intermediate.

We may roughly classify the cpds. to be considered in this chapter along the following dimensions:

- lexical vs. productive
- modifier-nucleus (MN) vs. nucleus-modifier (NM)

Lexical compounds are specialised semantic units which are learned as such rather than being put together spontaneously.
Conversely, productive cpds. are those which can be put together on the spot, with both constituent elements having their own usual semantic values. This distinction is gradient rather than absolute. Although any attempt to account for compounding using conventional "transformational" models will run into difficulties, certain types of productive compound could perhaps be thought of as the result of a copying rule by which the root of a NP with some grammatical function in the clause is copied (as cpd. initial) in the verb (or predicative NAdj). We specify that the rule is a copying rule, rather than an incorporation rule (by which the root of the independent NP is moved into the predicative word), since in these productive compounds (or some types of them) the cpd. initial may co-occur with an independent NP cognate. The copying process is normally optional:

(14.1) ma=bura:-' stone sits'
   it sits MANA-stone
(14.11) ma=nuna-n=a=bura:-' the stone sits'
   stone sits MANA-stone

Actually formalising such a copying rule is difficult, however, for several reasons. First, we do not always have a one-to-one association between independent noun roots and cpd. initials, even if we include suppletive pairs (§14.2). Second, we would have to explain why many nouns have no cpd. initial counterparts. Third, when copying is possible, as in the above exx., we still have to explain when and why the "optional" copying rule applies; for a consideration of discourse factors see §14.8. Fourth, there is no simple rule for which grammatical relations make an independent NP eligible for copying; see §14.6. Accordingly, while it is helpful to keep the copying analysis in mind, actually formalising the rules in transformational terms would be horrendously difficult.

The cpd. /nuna-n=a=bura-/ in (14.11) is also a modifier-nucleus or MN cpd., since the final element /bura-/ 'to sit' is the nucleus of the word as a whole, which has a verbal pronominal prefix and a verbal inflectional suffix and functions in every way as a verb.

Most compounds are of this general type, with a nuclear final (verb or predicative NAdj) and an modifying initial (usually some kind of noun or of indeterminate word-class type). However, there are also some MN (nucleus-modifier) cpds., in which the grammatical function of the whole word is dictated by the initial. Some exx. are those with initial /nuN-/ (Gentilic, §14.11) in any of the other special nuclear initials in §14.12-13.

It should be said here that since cpds. are presented in some quantity in the dictionary (s.v. the modifying component), we will not be giving exhaustive lists of the various types in this grammar. In addition to the cpds. treated in this chapter, numerous other specialised derivational formations are handled in various sections in other chapters: for Nder (derivational noun-class) formations see §4.6; for the morphology of kin terms including Dyadic forms see Chapter 5; all derivatives involving demonstrative roots are dealt with in Chapter 7 (e.g., §7.21, §7.22, §7.23); some derivational prefixes in Chapter 10 (e.g., §10.10) could have been transferred into the present chapter; for interrogatives see §13.4 and §13.7.

14.2 Special cpd. initials.

In the exx. (14.1-11) above, the cpd. initial /nuna-/ 'stone' matched the (cognate) root of the independent NP. While there are many such cognates, there are also many cases of suppletion or phonological irregularity, and cases where some semantic or distributional skewing makes it difficult to identify the cpd. initial as a simple copy of the independent NP root. Table 14-1 presents cases of suppletion or severe phonological reshaping.

See dictionary for detailed information. Some brief remarks will be given here. /-ar-/ '[fresh/salt-]water' is an ex. of a cpd. initial combining two concepts which are distinguished (quite rigorously) as independent NPs: /gu:gu/ 'freshwater' (ANA class) and /lhagayag/ 'sea, saltwater' (MANA). Even in the cpds., the two can be kept apart indirectly since the noun classes are distinct: /wa:-'r=abi-n/-'it[freshwater] rose up', /ma:-'r=abi-n/-'it[saltwater] rose up'.

<table>
<thead>
<tr>
<th>Table 14-1</th>
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<tbody>
<tr>
<td><strong>Special Cpd. Initials</strong></td>
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<tr>
<td><strong>Body part</strong></td>
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<tr>
<td>-bac-</td>
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<tr>
<td>-gi-</td>
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<tr>
<td>-hnaG-</td>
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<td>-hna-</td>
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<td>-nula-</td>
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<td>-hnaN-</td>
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<td>-eG-</td>
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<tr>
<td>-ar-</td>
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<td>-a-</td>
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Table 14-1   §14.1, §14.2
Some cpd. initials do not have a close nominal counterpart; these include /-lhal-/ 'mental disposition' (distinct from /-lhal-/ cpd. initial of /lhal/ 'country, place'), /-gun-/ 'behaviour', /-amburu-/ 'rainbow' (though /marn/ 'snake' is sometimes used as a noun in this sense, cf. the "rainbow serpent" mythology), and /-yali-/ 'mental state'.

Sometimes there is a virtual one-to-one relationship between noun and suppletive cpd. initial: /maga-/ and /-igi-/ 'fire', perhaps /nami/ and /-han-/ 'milk'. But more often there is some skewing, either some nonoverlapping of meaning, or the limitation of the cpd. initial to a handful of lexical cpds. showing the unmodified noun root; see dictionary for details.) There is no fixed pattern in the table, except that the cpd. initial is usually shortened in some way.

Alternations like noun /lhal/ cpd. initial /-lhal-/ 'country, place' with monosyllabic root showing length change are not shown in the table, since they are handled already by phonological rule F-44 (Monosyllable-Lengthening).

Exx. of cpd. initials which are essentially identical to cognate nouns in form and meaning are these (among others): /-lhal-/ 'country', /-lha:n-/ 'word, speech', /-charu-/ 'walk, hike', /-lhod-/ 'power, loudness', /-lha:j-/ 'chopped wood', /-gaga-/ 'hole, burrow', /-vig-/ 'fus', /-naga-/ 'grass', /-nana-/ 'stone', /-minjala-/ 'platform, sitting place in tree', /-ra:nag-/ 'wood, tree', /-riliji-/ 'island', /-minjali-/ 'ground', /-alag-/ 'hollow log, coffin', /-amig-/ 'ashes, embers', /-wur-/ 'raft, nest'. To this we may add many body-part terms (some are ousted by suppletive forms, Table 14-1, but in some instances the suppletive and regular cpd. initial form are both possible). Note that the items just listed, along with those in the table, tend to be either a) body parts; b) abstractions like 'conduct' which must co-occur with a qualifier, and c) "core" items.

<table>
<thead>
<tr>
<th>Table 14-2</th>
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<tbody>
<tr>
<td><strong>Phonologically Irregular Cpd. Initials</strong></td>
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<td>-m:alag-</td>
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<th>Table 14-3</th>
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<tbody>
<tr>
<td><strong>Semantic Shifts</strong></td>
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<tr>
<td><strong>form (as cpd. initial)</strong></td>
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<tr>
<td>-bura-</td>
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<td>-lhal-, -lha:j-</td>
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<td>-wlaEunj-</td>
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<tr>
<td>-w2angl-</td>
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<td>-w2angl-</td>
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In Table 14-3, above, we summarise some further exx. of semantic changes, usually with the cpd. initial having an extended meaning as compared to that of the cognate noun ("usual gloss"). Note in particular the use of body parts.

In §4.9 we mentioned that many nouns are unable to occur in underverned form as inflectable nouns, and must first be combined with a derivational noun-class (NCder) prefix; these are called defective or bound noun roots. In general, defective noun roots can be used also as cpd. initials (there are some exceptions, mainly involving long multisyllabic roots used with NCder prefix as independent nouns but not easily used as compound initials). In this usage, they do not bring a NCder prefix with them into the compound. The typical semantic domain for defective roots is parts or aspects of plants and inanimate objects.

Exx. of defective roots also attested ag cpd. initials (for details see dictionary entries) are: /-hanu-/ 'wind', /-mala-/ 'honey', /-hagala-/ 'surg., saltwater', /-ul/ 'pandanus trunk', /-raga-/ 'fish trap', /-nara-/ 'sand', and /-ambur-/ 'outward appearance, looks'.

In addition, many nondefective nouns (those which can be directly inflected as nouns) which we have listed above as having cognate cpd. initials can also be used with NCder prefixes (e.g., human body part terms which take NCder Prefix when referring to parts of plants or inanimate objects).

By means all nouns have corresponding cpd. initials, whether suppletive or cognate. In particular, specific flora-fauna terms (except 'pandanus', specific manufactured implements (including particular types of spears), and adjectival or adverbial nouns (including gender/age/status terms for humans, except for collective term for 'uncircumcised boys', see /-aragi-/ in dictionary), do not occur as cpd. initials.

It might still be asked whether specific nouns (e.g., flora-fauna species) might co-occur with more general cpd. initials. For example, schematically the-coolibah it-tree-stands with coolibah (a tree) copied in the verb as a more general classifying cpd. initial.
Similarly, we reduced */w uguni/ as */=w warwu-/ cpd.-final form of */=w l /w 2 arwu-/ (also as */=ngu-/ between note also that Initial Reduplication P-2 normally and thus in effect account for different (pre-surface) representa­
tions of stems in the two positions are
tionally to uncompounded and compounded (or derivational) boundaries, and that ngu-Epenthesis P-1 inserts Epenthetic
are p-16 and P-19. §3.20
In addition to this instance of suppletion, there are a number
of verbs which have different forms in uncompounded and compounded
or cpds.
shortening of verb in cpd.-final position is seen in
14.4 Auxiliary compound finals: */=w 2 u-/ and others.
When semantic skewing is not usual in cpd. finals, we can cite a few cases. */=w 2 a/- 'to hit' tends to include the sense 'to eat' in cpds. like */=wuguni=b̪a-/ 'to eat fodder', while */=w 2 u-/ 'to eat' is uncommon as cpd. final except in */=w 2 a=/wu-/ 'to drink' (a possible ex. is */=wuguni=ku-/ 'eat stone' TNT 39, but the form is problematic), */=w 2 ala-/ 'to arrive, to come out [to place]' has an occasional cpd. where it loses /*/alu-/ 'be/ become angry or violent', */=iaguni=ku-/ 'be/ become thief', in both cases with preceding NAdj which supplies the characterisation; perhaps */=ila=ku-/ 'act silly' is similarly based on */=il/ 'silly'.
There are quite a few verb and NAdj roots which appear to occur
only with preceding cpd. initials, sometimes rather frozen ones.
These include those verbs and NAdj which are associated with an
"unmarked" cpd. initial (sometimes Mult */=w ara-/ in a special usage) which is present when no more concrete cpd. initial is used; see §14.10. See also dictionary entries of NAdj */=w=nganngad/, */=wngara/, */=w nganngad/ (to drop'), */=wala=ku-/ 'to eat fodder', while */=ngu-/ (to eat' is uncommon as
classifier, apparently since it looks formally like an auxiliary (Aux) cpd.
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logical rules which
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classifier, apparently since it looks formally like an auxiliary (Aux) cpd.
in that the suppletive stem is not used, but is semantically like a genuine cpd. in that /mwa:/ retains its basic meaning. This exception aside, Aux cpds. with /-we/- (we put the = boundary before the preceding, semantically central morpheme) do not mean 'hit', 'kill', though a few come close. They include a fair number of intransitive cpds. (about one-third of the total attested), but whether transitive or (formally) intransitive they generally indicate a physical (often manual) activity.

Transitive exx. are /=-hadjib-bu-/ 'tie up', /=gali'n-bur-wu-/ 'go past', /=galu-bu-/ 'jump over', /=gili-bu-/ 'swoop down', /=giri-bu-/ 'swoop down', /=haj-bu-/ 'blame', /=hlalm-bu-/ 'burn, cook' (=hlalm- 'flame', defective noun), /=ihan-bu-/ 'restrict', /=ihllhir-wu-/ 'just pick, just graze', /=ihhil-wu-/ 'break', /=ilirli-bu-/ 'tap', /=lilx-gl-wu-/ 'blame, accuse', /=mag-bu-/ 'complete, do well', /=marya-wu-/ 'sting in eye' (cpd. initial /=ba-/ 'eye'), /=mar-bu-/ 'spear (animal)', /=mar-d-bu-/ 'tie', /=uru-bu-/ (cf. also /=muru-/), apparently a cpd. final form 'cook, burn', /=waba:ri-bu-/ 'spill out, tip out', /=w2urter-wu-/ 'paint with red ochre (obscurely related to /jilxalA/ 'red ochre'), /=alyali-wu-/ 'shave in water', /=yinur-wu-/ 'wipe nose of' (cf. /yinur/ 'common cold'), /=yi-wu-/ 'singe, scorch'. We should also mention /=adjii-bu-/ 'strike, hurt' which has a slightly different conjugation (/M2 instead of /M1/, which applies to /=we/- and the other Aux cpds.; Table 11). Aux cpds. are /=hunb-bu-/ 'hit', and the aux f.layers (of rays), /=marya-wu-/ 'be full of food' (/mraya/ 'vegetable food'), /=min-bu-/ 'play trick', /=pana-wu-/ 'yawn', /=waradawu-/ 'eat breakfast', /=warar-bu-/ ['fish'] jump around', /=wargad-bu-/ 'belch' (=argad- 'Fonti' noun), /=yaya-wu-/ 'pock around', /=yi-gi-bu-/ 'fan flames', /=yulubu-/ 'suck honey' (=uluc/ 'honey-eating material'), /=ya:gi-bu-/ 'sneeze', /=ya:li-bu-/ 'cough' (cf. /yalijalig/ 'common cold'). Note the frequency of verbs related to bodily functions ('yawn', 'belch', 'sneeze', 'cough').

As usual /=we:/ becomes /= after stop or nasal. In exx. like /=ji:jii-bu-/ 'conoseal', we assume base form ending in stop archiphoneme /g/, hence /=ji:jii-gu-/, so Hardening F-2 is an applicable rule. There are a handful of combinations involving other cpd. finals which might be considered Aux cpds. in /=jirvi-ma-/ 'play with, take lightly' we may have /=ma/- 'pick up, take' in special Aux function likewise /=-in-/ 'to arrive' in such cpd.s, as /=badjim:ain-/ 'become angry' as another Aux candidate. But only just then do we systematically as an Aux (those and not just those) distinct (suppletive) form in non-Aux cpds. (Historically, many verbs of N class, see Chapter 11, contain *=,ma- 'carry', but this verb no longer exists separately and no synchronous segmentation is viable.)

In the Aux exx. with /=-we/-, frequently the preceding cpd. initial is not otherwise attested in the language. In the few cases where we can identify it synchronically, it is a noun (sometimes a defective noun, §4.9).

14.5 No-NAdj and (rare) No-cpds. The only significant type of cpd. in which both components are formally nouns is the one with a common noun (No) root as initial and NAdj as final.

We noted in §14.2 that only certain nouns can occur as cpd. initials, either unchanged, with phonological changes, or with a suppletive replacement. In general, specific flora-fauna terms, specific to human terms, and NAdj (including most human nouns) are not permitted as cpd. initial. This rule applies as well to No-NAdj cpds., which are therefore rather limited. On the other hand there are no obvious lexical restrictions on which NAdj can appear as cpd. finals in No-NAdj cpds., except that NAdj specifically designating humans or human age/sex categories are apparently excluded. NAdj corresponding to English adjectives (designating size, shape, weight, goodness, and other qualities) are generally allowed as cpd. finals.

Cpds. ending in /=?uri:ig/ or /=?in:yi:/ are treated in §14.23, while those involving /=agj/- are handled in §14.21.

NAdj for which No-NAdj cpds. are mentioned are cross-referenced in dictionary entries are /=gju:/ 'raw, uncooked', /=hanungur/- 'short' (base form really /=hanungur/, cf. P-19, §3.20), /=hardharg/- 'rough, coarse', /=hama:-/- 'ripe, cooked', /=habary/- 'big, important', /=halyzer/- 'dirty', /=malan:/ 'good' (often shortened to /=malan:/ as cpd. final), /=malalg:/ 'ignorant, not knowing', /=maragar:/ 'tie', /=ru-bu/- (cf. also /=wuru:/, apparently a cpd. final form) 'cook, burn', /=matar-bu-/ 'spill out, tip out', /=m2ar-bu-/ 'paint with red ochre (obscurely related to /jilxal:/ 'red ochre'), /=alyali-wu-/ 'shave in water', /=yinur-wu-/ 'wipe nose of' (cf. /yinur/ 'common cold'), /=yi-wu-/ 'singe, scorch'. We should also mention /=adjii-bu-/ 'strike, hurt' which has a slightly different conjugation (/M2 instead of /M1/, which applies to /=we/- and the other Aux cpds.; Table 11). Aux cpds. are /=hunb-bu-/ 'hit', and the aux f.layers (of rays), /=marya-wu-/ 'be full of food' (/mraya/ 'vegetable food'), /=min-bu-/ 'play trick', /=pana-wu-/ 'yawn', /=waradawu-/ 'eat breakfast', /=warar-bu-/ ['fish'] jump around', /=wargad-bu-/ 'belch' (=argad- 'Fonti' noun), /=yaya-wu-/ 'pock around', /=yi-gi-bu-/ 'fan flames', /=yulubu-/ 'suck honey' (=uluc/ 'honey-eating material'), /=ya:gi-bu-/ 'sneeze', /=ya:li-bu-/ 'cough' (cf. /yalijalig/ 'common cold'). Note the frequency of verbs related to bodily functions ('yawn', 'belch', 'sneeze', 'cough').

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In the Aux exx. with /=-we/-, frequently the preceding cpd. initial is not otherwise attested in the language. In the few cases where we can identify it synchronically, it is a noun (sometimes a defective noun, §4.9).
However, in formally nominal instances, or with zero inflectional
affixation (interpreted as nominal, with NC:pref. prefix omitted and
with zero Nominitive case suffix), there is variation as to whether
the (pragmatic) focus is on the noun (with the NAdj as modifier),
or is really on the NAdj (specifying a quality for an already
mentioned noun).

The situation is complicated by the fact that some No-NAdj
compounds are semantically similar to what are sometimes called
bahuvrihi compounds by linguists (the term is from Sanskrit grammar),
c.f. English Blackbeard or black-bearded (i.e., 'having a black
beard'). Here the cpd. itself contains a body-part noun plus an NAdj
but the whole expression is predicated of a person (or other object).
From the previous page we recall 'chest-heavy' = 'pregnant', and
Inch verbalisation 'hand-heavy-COME' = 'have one's hand become
heavy', Other exx. are /n-lhal=mgulag/ '['lit., 'midriff-shine']' /lm-
'[hand, arm'] from mouth [coined]
badly as final] 117.6.3, /-wlagam-bilnginYja-/ 
[tree with boomerang, etc.]', /-mal-i=na-/ 
'[to hit' hand') TNT 13.5.3, 13.2.2 (also TNT 15) 
/-mal-na-/ 
'[to see hole]' MT 17, 
/-n-alba-na-/ 
'[to see pond]' MT 21 and TNT 2rdp, /-w-lj=na-/ 
'[to see [edible thing] TNT 7, 
/-m-ya-/ 
'[to go] we can cite /-m-ya-/ 'sky' to go' TNT 9 
and 
/-m-ya-/ 
'[to go] go to' TNT 15.

Transitive verbs: /w-adja-/ 
'[to hit, kill] in 
/-maEl=na-/ 
'[to hit [him, her]] in [his] back', and 
/-wladji=wadja-/ 
'[to kill freshwater game 
animals]' from /wma= 
'to see' we have /-w-ngala-na-/ ', to see 
billabong (pond)' 13.2.3, 13.2.4.2 (also TNT 13) 
/-yina=ngalngala-/ 'to have one's head shining' 1.8.6, 
and /-yiga:='bi-/ ' [fire] to jump up, give off sparks', and from 
/-w-lj=na-/ 
'[to go] we can cite /-m-ya-/ 'sky' to go' TNT 9 and 
/-m-ya-/ 
'[to go] go to' TNT 15.

There are many similar exx. and we will now turn to a closer
examination of cpd. initials which cannot be analysed as belonging
to these relations. We begin with instances of trans. subject,
which our initial generalisation excludes. There are not many such
exx. because it is quite a few. The best exx. involve an insinuate
agent, including pain or disease, acting on a human or other object;
Usually there is no independent NP corresponding to the agent (though
in some instances this is a possibility): /-an-b=ha- 
'[headache] to inflict (lit., bite) [someone]' /w,a,-/; /-wadja-wa-/ 
'[to strike (e.g., ground)'; /-wana=maEa-/ 
'[knees on head] to inflict (lit., pound) [someone]' .
Note that in English we say ['X'] has a headache', ['X'] has sores on head', etc., with
English patient grammatically the subject.
We now consider locative and allative cpd. initials, specifying
location or terminus of motion. Exx. are /-maL=na-/ 'to go' TNT 15.
/-yina=ngalngala-/ 'to have one's head shining' 1.8.6, 
and TNT 2rdp, /-wlanYja=na-/ 'to 
[following] mark/trail' or 
/-wlanYja=na-/ 'to see hole' MT 17, 
/-n-alba-na-/ 
'[to see pond]' MT 21 and TNT 2rdp, /-w-lj=na-/ 
'[to see [edible thing] TNT 7, 
/-m-ya-/ 
'[to go] we can cite /-m-ya-/ 'sky' to go' TNT 9 and 
/-m-ya-/ 
'[to go] go to' TNT 15.

The generalisation about nominal (No) cpd. initial with following
NAdj final is rather obvious; see §14.5 for some exx. As an ex. of
intrav. verb we take /-n-al-balga-/ 'to shine, be white or bright-
coloured', cpds. /-lhar=an-gula-digula-/ ['entrails'] to shine' 1.6.8,
/-num=an-gula-/ ['person'] to have foot shining' 17.8.2, 
/-yin=an-gula-/ 'to have one's head shining' 1.5.2, and 
/-bagula-gula-/ 'to have eye shining' TNT 13rdp and 24. Likewise,
from /-anbal-/ 'to jump' we get /-an-balva-/ ['water'] to splash' TNT 2
and /-lm=an-bi-/ ['fire'] to jump up, give off sparks', and from
/-w-lj=na-/ 
'[to go] we can cite /-m-ya-/ 'sky' to go' TNT 9 and 
/-m-ya-/ 
'[to go] go to' TNT 15.

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'[to go] we can cite /-m-ya-/ 'sky' to go' TNT 9 and 
/-m-ya-/ 
'[to go] go to' TNT 15.
Purpose/goal is not a common cpd. initial function, but note
/"mi~na-/' [X] to see(examine) [Y] for kids' Mt 28 and 20rdp.
Source of mental state seems to be a reasonable description for
the initial with /"manew-/' /"to give' as final in the sense 'to be
exhausted, tired', as in /hzam=awiy-/ 'to be tired from walking'.
The sense similar to may perhaps be gleaned from an initial, with
the same final, namely /"mabar=mawiy-/' /"to be very hungry',
it. 'to be (on verge of) dying like the dead'.
A more complex grammatical schema is needed for /"harun=hiribi-
/to perseverate[hiribi-]/ at walking', the logical representation
which would seem to require a higher verb ('persist', 'keep on')
and a complement clause, here reduced to a single noun root. Others
with this final are /"baw=hiribi- 'to stare' (i.e., 'to persist with
eyes'), /"salda=yiribi- 'to continue racing', and /"yan=yiribi-
/to keep speaking', lit. 'to persist with voice'.
Another cpd. initial requiring complex logical representations is
/"adu-/, which to an initial approximation can be glossed 'spear'
or 'act of spearing' (it is now sometimes extended to situations
involving shooting, etc.). Exx. of cpds. are /"adu=mawiy-/' to
sit with spear in one's body' from /"mawiy- 'to spear' (162.23.5);
/"adu=mujura-/' [X] to push spear into [Y, dir. obj.]' from
/"mujura- 'to push' (13.39.1); /"adu=mawiy- 'to die from spear
wound' from /"mawiy- 'to die' and /"adu=mawiy- 'to go with spear
in hand' (after being wounded)' with /"mawiy- 'to go' (104.25rdp).
The contribution of /"adu-/' is to specify that the victim is receiving
or has received a spear wound or that the spear is still in his
body; the cpd. final is a verb which may represent an aspect of the
act of spearing the victim ('push in'), or a logically distinct but
concessive state.
While further cpds. could be analysed in this fashion, the
above will have to suffice. It is clear that no simple rule, copying
a noun root from a particular privileged grammatical relation, will
account for the data; not only do we see exx. of various relations
as cpd. initials, but we have some which are difficult to characterise
in terms of independently established grammatical relations or
morphological cases.
One could, however, make the point that except for the small
number of inanimate trans. subject cases, the vast majority of cpd.
initials are somehow associated in some way with intrans. subject or
(semantic) direct object. Not only do we have many cpd. initials
which designate this (absolutive) NP directly, or designate a body
part thereof, we also can discern an absolutive perspective in the
logical representation, i.e., most instrumental, and pronominal
prefixes are mentioned. For example, the location in the 'localitive' instances
refers to the location of the absolutive NP (not the trans. subject
in the transitive exx.). Indeed, some of the trans. subject cpd.
initials ('headache' and 'sores on head' in our exx., above) are, in
effect, parts of the person functioning as direct object.
It is also necessary to point out that the grammatical relations
aspect of cpd. initials is determined at an early derivational layer.
Indeed, our specification that semantic (not necessarily morphological)
direct object or patient is the absolutive NP to which cpd. initials
may refer is designed to account for such instances as

§14.6

-\"mi=gu-/' [X] to give name to [Y] 28.1.4.; /"habawaty-/ '[X] to
give coolamon to [Y], and /"yan=gu-/' [X] to give voice (i.e.,
words, information) to [Y], with various forms of /"yan=gu-/'
to give'.
Here the verb /"yi-/ takes giver X as subject and recipient Y as
morphological object (in pronominal prefix), though the clause-level
case frame would have X as subject (Nomintative), the gift as direct
object (Nomintative), and Y as indirect object (Allative-Dative).
In these compounds, the grammatical relation of the target
initial is 'absolutive' (here, direct object) in conformity with the clause-
level case marking rather than the verbal morphology.
The same point applies to cpds. to which Benef (§10.2) prefix
is added, bumping the underlying direct object out of the
pronominal prefix and replacing it with a semantic indirect object
(or, with intrans., input, adding a semantic indirect object). Thus from /"ma-
/[X] to get [Y], we first form cpd. /"maga=ma-/' [X] to grab [Y]
by [Y]'s arm', then Benef /"maga=ma-/' [X] to grab [Y] away from
[Z, Benef object] by [Y]'s arm' (79.1.1.5). Note that cpd. Initial
/"maga-/' 'arm' is not affected by the Benef overlayer, which
eliminates the pronominal object marker for Y from the verb (though
Y can still occur as independent NP in Nomintative case for direct
object, vs. Allative-Dative for Z). The arm in question is still
Y's, not Z's.
For similar remarks about derivational layering, see also our
analysis of co-occurring derivational prefixes, notably the analysis
of Muti and Pas- in §10.4 and §10.11.
In the case of what we might describe as lexicalised benefactive
verbs like 'to give' (whose morphological object marker always has
indirect object meaning and which therefore does not need the Benef
prefix), there may be some counterexx. to our generalisation in
which a cpd. initial has indirect object perspective, when the cpd.
initial would not make sense otherwise: /"maray-"/[X] to give
[something] to [Y] by hand/[maga-]/ 4.6.3.; /"maray-"/[X] to give
[something] to [Y] as [Y] sleep (i.e., secretly, at night) 40.10.3. In the first of these, 'hand' may refer both to the
giver and the recipient. See entry for /"yi-/ to 'give'.

14.7 Derivational layering (double cpds., etc.).
We have just made the comment (§16.6) that cpd. initials generally
apply prior to Benef derivational overlays. We must now consider
additional combinations involving a cpd. element and a derivational
affix, as well as double cpds.
Consider a Caus derivation (/"sas-/' -head-hurt-Caus- [X] cause
[Y]'s head to hurt' from intrans. input -head-hurt- [Y] to be hurt
in/subject. Because the cpd. initial 'head' regularly refers to
intrans. subject or trans. object (absolutive), in the Caus ex. we
got the same result semantically whether the cpd. initial or the Caus
affix is derivationally prior: -head-hurt-[Caus-] = -head-hurt-Caus-
Similarly, a Recip (/"sas-/' or Recip (/"sas-/' intransive derivation like
-head-hit-Recip- [X] be hit in head' from -head-hit- [Y] hit [X]
in [Y]'s head is hard to analyse, since 'head' can only refer to
absolutive X in the other case: -head-hit-Recip- = -head-hit-Recip-
We can dig for more revealing exx. using the few verb stems
which have irregular meanings in their Caus and Recip derivations:
the promotion-to-object instances of Caus (§10.7) like /ya=mja-ga-
[X] to say "..." to [Y] from /ya=ma-/[X] to say "...", and
the antipassive instances of Refl (§10.5) like /ma=gi-[X] to
tell' from /ma=ga-[X] to tell [Y]. However, the handful of
promotion-to-object Caus forms do not occur in the data with cpd.
initials that tell us much. As for the antipassive (false Refl)
cases, we can perhaps glean something from one such verb, /=w=urama-
[X] to go around [Y]' Refl /=w=urami-[X] to go in circle'.
One cpd. from the trans. input is /=dhaga=-gura-[X] to
surround [Y], and this has Refl form /=dhaga=-gur-[X] to
go around [X] to go in circle' (cf. also Recip form TNT 28). Although it is
hard to tell what /=dhaga=-G- means, it seems to mean the same thing
in both instances, so we assume the derivational layering is
[-Cpd-Verb-Refl].

On the other hand, we can cite /=rin=-gura-ma-[X] '[Brolga] to
go in circle' 7.19.1rdp, having /=riN=/ 'Brolga' as cpd. initial
(this is a "subject-index" initial used in myths, see §14.19).
Since it looks from present data that /=rin=-gura ma-[X] does not
exist either in the (subject-perspective) sense '[Brolga] to go
around [it]' or in the (object-perspective) sense '[X] to go around
[Brolga]', I presume that the layering is -Cpd-[Verb-Refl-]
in this instance.

This contradiction is not unusual, in view of the fact that
Refl derivations appear in some cases to be frozen (lexicalised), in
other cases productive—a distinction which could affect layering.
Double compounding is not particularly productive. However,
naturally some cpds. are partially frozen, and in view of the general
productivity of some cpd. initials it is not too surprising that
some double cpds. occur. Some exx.

/ya=ma=ra/-'throw spear through head/throw[yinag] of
7.3.6 (/-w=ara-/-cpd. of -/ra/-)
/yam=/jali=aw=l=/ 'be tired from speaking' from /ya=m=/
'voice'/,-yal=aw=l=/ 'be tired' (/-=aw=l=/ 'die')
/yam=gu=/(=aw=m=ma-/ 'argue with [him]' (contains /=aw=m=ma-/ 'voice' and
/-w=uri=/ 'chest; emotion', but */-w=urin=ma-/ not separately recorded)
/-aga=ji=/=gur=bra-/ 'imitate [him]' based on /=ar=bra-/ 
'imitate'; /=gug=/ 'hug' /=an=bra-/ 'chase, pursue');
/-bari=ga=/=ar=bra-/ 'nomadic, restless' (/=bari=/ 'walking',
/-yal=/ 'mental state', Nadj /=ar=bra-/ 'spreading',
inner cpd. not recorded)
/-du=mu=gu==/=guda=/ 'water form bay/inlet' (+/-du=/ 'bay
added to' /gu==/=guda=/ 'turn corner')
/-haba=-,/-a=bara=/ 'drop coolamon' from /haba=-/ 'coolamon'
and frozen cpd. /a=2=bara=/ 'drop' (/-w=ara-/-)
TNT 21.

In the analysable cases just shown, the layering is, of course,
from the root outward (to the left). It is possible that 'argue
with' and 'nomadic' are frozen complexes with no internal layering,
but the absence of attested inner cpds. may be accidental.

14.8 Discourse uses of productive cpds.

Of course, lexical cpds. (§14.1) in which the whole cpd. has a
specialised meaning have no particular discourse significance; their
usage is motivated by semantics. However, productive cpds. (§14.1)
in which a cpd. initial has been (optionally) copied into a verb
or predicative Nadj may have discourse as well as semantic motiva-
tions.

Such cpds. are, of course, condensations of more complex
constructions into a single word (whether we think of this literally,
as a "transformational" operation, or in terms of approximate
functional equivalence). When pronominal prefixes, inflectional
suffixes, and perhaps additional derivational elements are taken
into account, a cpd. verb may contain a large quantity of material:

(14.111) n=anambidi=yan=/=ja=/=yan=ma=/=ja=si
they will constantly hear my voice

(14.1) wua=ra=-/=jiga=/=na=na=ji=ni
3 Pl /WARA/=Benef-fire=Refp=see-Recip-Pa
'they found each other by [seeing] each other's fires'
and enable the narrator to alternate new, foregrounded clauses with repeated, hence backgrounded clauses (which then may frame a following clause with new material).

Although such repetitions are impossible to classify rigorously, we may suggest the following as recurrent types: a) clarifying echoes which repeat a clause with additional information to clarify the original clause; b) filler echoes which repeat a clause while the speaker thinks of what to say next, but without a clear lead-in to the eventual next clause; and c) lead-in echoes which are clearly designed to frame a following clause with new information. Lead-in echoes are often characterised by some combination of the following: 

a) reduplication (§8.4); b) monotonic high pitch; c) postposition 

of the following: 

14.1 Transitivity changes accompanying compounding. 

There are a reasonable number of instances where a verb which takes transitive pronominal prefixes in uncompounded form (and usually in most compounds) becomes morphologically intransitive in one or two particular cpds. There is one ex. where the opposite occurs. All cpds. mentioned in this section are lexical (§14.1).

In the list below we present the exx. of transitive verbs becoming intransitive in cpds.:

/-w la=ngul=/ 'stuff meat and fat into intestines' 
/-n u=yaba-/ 'do something' 
/-dha=guama-/ MT 16, 18rdp 'drink' 
/-n aln=jaba-; 'hook spear to woomera (ready to throw spear)' 
/-n al=ngu-/ 'go around [it][him]' (!initial obscure) 
/-n gu-/ 'to eat' 
/-ngu-/ 'to eat' 
/-=ngu-! 'look for, seek' (initial otherwise unattested) 
/-=w1alima-/ 'go get water' 
/-=w1alima-/ 'go around [it/him]' (initial obscure), cf. variant /-dha=guama-/- (Refl), same gloss MT 20 
/-=w1alima-/ 'look for honey up in tree' < /=na-/ 
/-ngu-/ 'to eat' 
/-=w1alima-/ 'look for honey up in tree' < /=na-/ 
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The fact that the cpds. are morphologically intransa. does not mean that a semantic direct object cannot occur as an independent NP juxtaposed to the verb. Thus /-w la=ngul=/ 'drink' may co-occur with a noun like /ana:-gugu;-, 'the water', in zero Nominative case. However, when the verb means 'look for', if the object (i.e., goal) is represented as an independent NP, it is usual to make the verb transitive again by adding Benef prefix (§10.2), as in /-an=galaha=llarma/- 'search for [it][him]' 16.17.1, TNT 5.

The change from intrans. input verb to trans. cpd. is seen in 

/-an=galaha=llarma/- TNT 21 'spread out [fire, dir. obj.] with stick or other poker', cf. /ana/ 'embers', 
/-galaha=llarma/- 'go get water'

Here the cpd. final is semantically rather dissociated from the simplex verb.
As we have briefly mentioned earlier, there are some cpd. finals which either cannot, or seem not to like to, occur in uncompounded formations (leaving aside cases of suppletion). These bound cpd. finals usually require an unmarked (or dummy) cpd. initial which is used when no semantically concrete cpd. initial is present. The dummy cpd. initial depends on the particular cpd. final, and it may be simply a special usage of a root which has a real meaning in other contexts.

The common dummy cpd. initial is /-w ara-/ or variant /-w araG-/, which has already been seen as an important multiple derivational prefix (§10.4), although it is not easy to tell in just which combinations this becomes a dummy cpd. initial, there are some verbs which seem to use it with suspicious frequency, or which have not been recorded without it (except when a distinct cpd. initial is present). In addition, in some cases the combination /-w ara-Verb-/ seems to have been reinterpreted as the verb stem, so that specific cpd. initials are preposed to the entire sequence. The exx. which I tentatively classify as involving /-w ara(G)-/ as unmarked cpd. initial are these:

/-w ara-wagarana-/ 'be constipated' < /garana-
/-w ara-warlha-/ 'be stiff or sore' < /warlha-
/-w ara-zi:igma-/ 'itch'
/-w ara-wadwa-da-/ 'ache, be exhausted physically' < /w ada-/ (bone, etc. break, snap, yield) (w. internal rdp.)
/-w ara-muyla-/ 'be hurt, have a pain' < /muya-/ cf. further cpd. /dan-gaya-/ or /dan-gara-gaya-/ 'have ache in belly or abdomen'
/-w ara-yai:la-/ 'hug, [hlm/lit]
/-w ara-yiririna-/ 'poke, [it high] < /yiririna-/ cf. further cpd.
/-w ara-gara-gari:na-/ 'poke in ear with simplex, [it high] < /w ara-gara-gari:na-/ [Refil] 'poke self in teeth' including /-w ara-

Of course, /-w ara(G)-/ in these exx. may mean 'all over' or indicate multiplicity of intrane, subject or (semantic) direct obj. It is the frequency of usage of /-w ara(G)-/ which leads me to classify it as a dummy in these exx. Note that all exx. involve bodily sensations or physical actions on someone's body.

The other dummy cpd. initials are these:
/-halma-wugag-/ 'big, vast' < /wugag/
/-halma-yiri:wa-/ 'hug'
/-agaga-/ 'bone' (in some derivatives also 'sky');
/-agara-wugag-/ 'big, vast' < /wugag/
/-agara-yiri:wa-/ 'hug' (for ending cf. §4.16)
/-agara-/ (as cpd. initial also ['while'] sleeping);
/-ga:na-mulumulubu-/ 'short (in height)'
/-mukuru-/ 'billa:ng, pond';
/-mukuru-walha/- 'be vast, extend over wide area' (Refil form, cf. /w:na-walha-/)

\[14.10\] Unmarked (dummy) cpd. initials: /-w ara-/; /-halma-/; /-agaga-/; /-ra-ga-/; /-mukuru-/; /-malanG-/

\[4.16\] (ag cpd. initial 'considerably, verb', §14.18):
/-malanG-/ (ag cpd. initial 'considerably, verb', §14.18):
/-malanG-na-mah-/ 'far away, distant' 
/-ma-/ (frozen cpd. initial for 'ground, earth'):
/-ma_-dada-/ 'bulge, protrude, swell' < /w ada-/ (some further cpds. based on this combination)

Note that /-halma-/ and /-agaga-/ occur as alternatives with the same bound cpd. initials; /-agaga-/ is more common.

\[14.11\] Gentilic /nuN-/.

This morpheme is used chiefly in a small number of clan names, but also in /num-mabula/ 'Hunngubu language'. The following exx. show how a root element is often in a noun which does not otherwise occur as cpd. final, so Gentilic forms are best considered a special type of derivative. Exx. of Gentilic clan names (or terms for other regionally bounded groupings of people):

/-num-dhiribala/ (clan n.) < /dhiribala/ 'down' (i.e., at coast)
/-num-barwar/ (clan n.) < /warwar/ 'thick stringybark scrubland'
/-num-garafari/ (clan n.) < /garafari/ (clan n.) < place n. /garafari/ < /num-ganjabar (clan n.) < place n. /num-barwar/ < /num-garaabar/ (clan n.) < place n. /num-garaabar/ < /num-garaabar/ (clan n.)

In another clan name, /numani/ < from /numani/ 'scrub wattle tree', it looks as though /num-/ has been added to a noun which retains a form of the NC prefix, here /-ma-/ It is not clear whether this is an archaic formation, or (as is more likely) a borrowing from a nearby language (the /numani/ originally spoke Ngaridi [Inland subclan] and Warnarang). There are other clan names and the like which may contain /nuN-/ but where the second element is not easily identifiable:
/-numangaga-/ 'Anindilyakwa people', /num-angalbalang/ (clan n.)
/-numangalbalang/ (clan n.) /num-vunjabar/ (clan n.) /num-vunjabar/ (clan n.)

In a more general sense, we find /nuN-/ in /num-ju-nun-/ (rdp. Pl) /num-ju-nun-/ 'bush (inland) people', contrasting with /num-mahalala/ 'beach (coastal) people', from /yu:l/ 'bushland' and /mahalala/ 'beach'.

/-num-/- pops up occasionally in other types of derivative.

From /-garu-/, /'half-grown male dugong' we get human noun /num-garaguru-/ which can be used as a collective (NA NA noun class) for 'uncircumcised boys' or can take human (Sg/Du/Pl) affixes with the same meaning, e.g., /num-garaguru-yi/ (clan n.).

/-gara-/ also shows up in (uncommon) demonstrative derivatives; see §7.23 for details. Similarly, it shows up in one interrogative form, /num-jan-mai-/ ['person'] from what place?', see §13.4.

In general, Gentilic forms may be used in any gender or number form, taking regular nominal prefixes and suffixes to express them. Some clan names like /numunun/ and /numal/ do not involve /nuN-/ It is also not used with nobility terms /numara/ and /yirrija/ or with most 'tribal' names (except 'Anindilyakwa') and it is never used as cpd. initial with verb as final.
14.12 Special nuclear initials: /bala/ 'side', /mal/ 'time', /galahal/ 'season', /lhal/ 'country, place'.

These are specialised forms used as cpd. initials; only /lhal/ 'country, place' is also used as an ordinary noun. In the constructions in question, these elements are used as nuclear cpd. initials and are followed by a nominal final (Nc, NAdj), with /lhal/ also a kin term which modifies the initial. The overall cpd. is thus NM type (§14.1). The elements used as finals in these constructions are often not elsewhere used as cpd. finals, so it is necessary to identify these finals in /balajagu/, one of two words for 'left-handed', (§14.1). The elements used as finals in these constructions are productive in some neighbouring languages (Ritharngu, Ngandi). It can be identified in /balajagu/ is also found in Mara.

It is used with /lhal/ 'country, place' can be used with a following kin term, as in /mal-garawindil/ 'many times' from /garawindil/ 'many' and several other combinations, but is also found in /mal-galapa/ 'somewhat later' (/ajagala/ 'in ruins'). (/an-n-/mal-ga-a-bu-du/- at another time' (/an-ba/- 'other', Locative case suffix /-ruj/), and with more general meaning in /mal-jilama(4)-dut/- 'these days' (/yilba/- 'today, nowadays', Loc /-ruj/). All cpds. are NAdv (§4.3).

14.13 /wanda/- 'craving', /anj/- 'being with' as cpd. initials. A special cpd. initial /wanda/-, underlying form //wanda/- (see P-9), occurs with following noun X meaning craving X, 'obsessed with (trying to get) X'. Exx. are /wanda-mawgungu/- 'lecherous, lustful for women', /awa-mayiya/- 'gluttonous, craving food', and /wanda-wu-ari/- 'violent, liking fights'. A more problematical case is /andha-wu-wugunugun/ is attested Mt 8 with /wu-wugunugun/ 'for good, permanently' (NAdj). Most of the attested finals do not otherwise occur in cpds.
Note also that with /=-ylga-/ the derivational suffix does not have its full form /-yJga-/ but combines with the final /-ylga-/ to give /=-yljga-/ 'to be raised', cpd. initial /-yljga-/ 'be weak'. Perhaps we could recognise the suffix allomorphic here as /-/j/, with an instance of the morphologically restricted rule V-Fronting P-50.

It is possible that the Proscriptive suffix /-yj/ or /-j/ should be compared with Ngadic /-yJ/ or /-j/ (also /-yJ/) used with kin terms (§15.6). A comparison with nominalising /-yj/ (seen with various functions in §14.15-16, below) is less appealing.

14.15 No or NAdj nominaliser /-j/ (with or without reduplication).

There are a number of synchronically transparent deverbative nominalisations, functioning either as NAdj or No (common noun), involving a final vowel before /-yj/. There are a number of instances of these changes:

- Variant initial /-yj/ (also /-yJ/ and /-yJ/) used with kin terms (§15.6). A comparison with nominalising /-yj/ (seen with various functions in §14.15-16, below) is less appealing.

Phonologically, the issue is the treatment of the root-final vowel before /-j/. There are a number of instances of these changes:

- /a/ → /u/ → /a/ → /j/
- /j/ → /j/

However, there are also cases of /a/ being unaffected by the derivation.

The phonological treatment of the vowel appears to be irregular and lexicalised. We have provided for the /a/ → /j/ exx. in our formulation of V-Fronting P-50, part (j). In the case of /V//~a//, I am uncertain whether we should regard this as a case of V-Aliaus P-39. In most instances the root is reduplicated by P-2. A direct connection with the less common Proscriptive construction just discussed (§14.14) is unlikely because of differences in semantics, word-class of input, and phonological form of suffix.

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The last of these looks like a "bahuvrihi" No-NAdj compound (§14.5) meaning 'having a light-coloured back', cf. /gulbu-/ 'back, backbone'. For other indications of an unproductive nominalisation give /=fulul-/ 'be variegated'. It is possible that the shifting of the root-final vowel to /u/ in the derived form with /-j/ is not clearly segmentable in the input.

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Note in the last ex. that the /-/a/- vowel of the /NAdj as well as the /NAdj class is used in the /-/ derivations, though in verbal inflection the two classes are almost exactly opposites in permitting the augment in various suffixal formations.

There are some other, (even) less easily analyzable instances which are probably of similar structure etymologically, e.g., /ambuguyuwuruyu/ 'grass sp. [Sporobolus]', which looks like */an-/* plus rd. /-/ deriv. root */=wurug-/ (not attested). There are a couple of additional cases of /-/ deriv. forming part of larger constructions or otherwise problematic:

The forms.

/ambu(-j)/-galag/ 'modest, ashamed', where rd. plus /-/ deriv. of */ambula-/ 'be modest' is cpd. initial, followed by /-/alag/ final.

/mbu(=w)/ 'sweat' with /-/urla/- 'chest', final perhaps a /-/ deriv. of */=wuraga-/ (attested in /-y=wiwa/- 'have grim expression on face')

/NCder/ (w./a)jan'anji/ 'barbs, hooks', surface forms like ANA class form /(-a)jan'alag/ (surface /-/ by F-8 or F-18 depending on setting of underlying form); ending looks like rdp. /-/ deriv. but NC derlvatlves needed.

Another possible case of /-/ is the bound (defective) noun root /-/haja/-, as in ANA class form /(-a)haj'alag/ < /(-a)haj'alag/; a meaning 'chopped wood, firewood'. This would seem to be related to /-haja/- 'to chop, [wood]', though perhaps the synchronic association is weak due to the brevity of the forms.

For other cases of /-/ see next section; for /-/j/- with rare variant /-/j/- in Proprietive constructions see §14.14.

14.16 Abstractive nominalisations: /-/j/, /-/w/.

A tiny handful of exx. are attested of /-/j/- or /-/w/- in what appears to be an abstractive nominalisation from a verb. A complete list of attested forms follows (all are ANA class nouns):

/waruru'ay-ay- 'pity' from /=-awur=ay- 'to pity' (/n=a-wa=)/n=a- 'death' from /=-aw=al-/ 'to die' 45.4.6

/-urla/=gdula/- 'thirst' from cpd. /-/urla=/gulda/- 'to be thirsty' (root */=wulda-/ 45.4.6

/n=ama/- 'laughter' from /n=ama/- 'to laugh'.

This formation is rare, and none of these forms has productive syntactic uses (e.g., 'complement' clause form). Note that only two textual citations can be given from the entire corpus. Efforts to elicit this form from other verbs failed.

There are a number of other nouns which have similar abstractive meaning (referring to actions or activities) but which are not morphologically related to any simple verb roots; see §4.33.

For a handful of bare-root noun forms related to verbs, in some cases looking like abstractive semantically, see §14.16.

14.17 Special replications of /an/-ba/- 'other, different'.

From NAdj /an/-ba/- 'other, different', regular NCinfl forms for ANA class are punctual /an/-m/-ba/-, continuous /an/-n/-ba/-.

This unique type of replication is attested with this stem, sometimes including the NCinfl prefix. The exx. are:

/arn/-ba(/j)/-yan/-ba/- 'many kinds, all sorts' 13.30.4, 93.1.5, TNT 23[with Relative /-yin/-un/]

/an/-n/-ba/-ganYbaj/- 'many kinds, all sorts' 59.7.2, 29.8.4, 69.11.2/3, 69.12.5, 108.4.4.

The second form clearly includes NCinfl prefix /ana/- in the reduplication. The first form seems to be based on the simple root /an/-ba/-, though arguably it might be based on /a/-/n/-ba/- with surface leveling of vowel length. To judge by our exx., if the prefix /ana/- is present it must be part of the reduplication. Ordinary nominal reduplication (§4.14) does not apply to NCinfl prefixes.

14.18 Cpd. initial /malan/-a/- 'considerably, very'.

This is a cpd. initial (or perhaps we could say a derivational prefix) which intensifies the following NAdj or verb; the translation may be 'very' or a slightly less emphatic 'considerably, quite a bit'.

In the combination /malan/-a/-nany-, /far away/, /-malan/-a/- functions as an unmarked cpd. initial (§14.10) and thus has no specific meaning. In other combinations it has intensive meaning. There do not seem to be too many lexical restrictions on which stems it can combine with, which is one reason for thinking of it as similar to derivational prefixes (Chapter 10). Attestations:

/malan/-a-dhahar-/ 'quite important' 16.7.6 < /hahabahar-

/malan/-a-duragai/ 'quite big' 16.7.3, TNT 11 < /guragai-

/malan/-a-gadhar-/ 'quite far behind' < /adhardhari-

/malan/-a-gadharwara/- 'rather far, rather little' < /adhara-

/malan/-a-gadharwara/- 'rather late in afternoon' TNT 26 (transcription emended) < /adharwara-

/malan/-a-ganYbaj/- 'quite different' < /anYbaj/

/malan/-a-bagubaj/- 'quite close by' TNT 3pred < /w=agubaj-

/malan/-a-bulmulhur/- 'quite a bit earlier' < /w=ilmulhur-

/malan/-a-bulbulwa/- 'be quite swollen' TNT 5 < /w=bulwa-

/malan/-a-gurugurij/- 'quite slow, soft' < /w=urugurij-

/malan/-a-jabai/- 'be on verge of going in' 162.4.3, < /y=jabai/-

/malan/-a-jagaha/- /'slip past, get away 27.7.4, < /yalda/-

It is not always easy to pin down the nuance, but it does seem that the initial is productive with some kind of intensifying function at least for NAdj and (trans)verbs. We have no textual exx. involving transitive verbs.

A stronger intensifier is Postposition /-w yindi/ /y=liyun/- (§12.21, cf. §5.32, §7.30). Verbal root forms (§12.2) also have a kind of intensifying usage. However, /-malan/-a/- is the most explicit, intensifier with quantitative (scalar) contexts, and is thus most common with NAdj which describe gradient qualities.

14.19 Actor-indexing cpd. initials for myth characters.

There are a couple of cpd. initials which have no lexical meaning, but rather are used exclusively in reported speech ascribed to particular myth characters. These initials thus serve as stylised indices for the speech of the characters, just as special phoneme substitutions characterise the "speech" of Coyote or other figures in some Amerindian languages.
For Brolga the prefix is /-mN-/, or in some instances more specifically /-mN-/. Attestations (excluding song words) are: /-mN=dabu=mabula-/ 'Brolga come out' from /mNabula/- with internal duplication (§19.7); /-mN=mugardhali-/ [Brolga] go [i.e., fly] around' from /mNugardhali-/ (§19.10). For Emu, who occurs opposite Brolga as a protagonist in one important myth, the prefix is /-mir-/ or /-mirN-/ or /-mirN=/. It most commonly in the expression /-mir=mugardhali-/ or /-mirN=mugardhali-/ [Emu] be finder', with a verb in which we have only observed in accounts of a myth in which Emu kidnaps and adopts a human boy (§8.4, 3, TNT 7 [with /-mir/]). Other exx.: /mN=galga1/ or /mN=galga1/ 'apart, distinct [of Emu]' from /mN,galga1/ (TNT 9 pred, 10pred) /mN-bigwiri/-/alone [of Emu]'/ from /mN,igwiri/ [TNT 9].

All of these exx. involve either NAdj or intransitive verbs (/=mugardhali/- is formally intrans.). We have no exx. of these indexical elements with transitive verbs. Formally, we might take /-mN-/ and /-mir-/ (and variants) as suppletive noun roots, used in NC-NAdj or NC-Verb compounds. However, we must emphasise that, unlike other suppletive cpl. initials (and other nominal initials), these elements are used only in the speech (reported in myths) of the characters in question, apparently with self-reference.

14.20 Special Pl/Collective initials with verbs and NAdj; /-man-/; /-mandag-/-; /-mulung-/-.

In our chapter on noun morphology we mentioned (§4.16) some lexically restricted Pl elements. Some of these, /-man-/ and /-mulung-/ are also relevant to the present section, which deals mainly with verbs. /-man/- occurs as a Pl marker with a number of verbs; some of the combinations are rather common, though I do not think important myth, the prefix is /-mN=/.

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14.21 Root nouns (participial, agentive); Negative final /-aEi/

There are a few instances in which we find a noun which looks like a bare root from which a semantically associated verb is formed, though not by productive derivational processes. The noun roots thus resemble verbal "root forms" (§12.2), but differ in that the nouns may take nominal morphology and are not pronounced as interjections.

The root nouns are semantically diverse:

- /w travelled/ 'wide' [NAdj], cf. /-w$_2$aladha-/ 'be stretched out', etc. (discussion §14.24)
- /w$_1$ulgulug/ 'cut off, severed' [NAdj], cf. /w$_1$ulguldhana-/ 'to cut off', /w$_1$uldhana-/ 'to cut'
- /w$_3$albun/ 'attested in 6Pd. /biga-war/ 'having sore rear end' (biga/ 'anus, rear end'), cf. /albun/ and /w$_3$arbarlha-/ 'be stiff, sore'
- /anarg/ [act/sound of] 'snoring', cf. /m$_2$andara-/ 'to snore'
- /m$_2$argal/ 'forearm-painting' (action or product), cf. /m$_2$albu-/ 'to paint [him] on forearm'
- /wunala/ 'body-painting' (action or product), cf. /w$_2$mala-bu-/ 'to paint [him] on body, torso'

The last three are, or at least can be, semantically verbal nouns (abstractions), compare §4.33 and §14.16. The first three are adjectival nouns (NAdj), and can be thought of loosely as participial in meaning, though they designate qualities (properties) rather than processes which produced the properties. The NAdj and verbal noun exx. have no special syntactic properties, and except for /w$_2$albun/ none of them is especially common.

In the first four instances, the related verb is formally characterised by presence of a new frozen augment *-sha- ('originally *-shu-'), forming verbs of A$_1$ inflectional class (Table 11-1). In the last two cases, the related verb is an "auxiliary" cpd. involving /-aEi/ (§14.4). It must be emphasized that root nouns, like verbal root forms, are an unproductive, archaic formation.

We now consider a set of lexicalised nouns (NAdj) with agentive sense. When no further derivational elements are present, they not only specify a type of activity, but indicate that the referent does (or in a given instance has done) the activity successfully or well. The exx. are:

- /lamabu/ 'good singer'
- /maba/ 'expert, master'
- /mirab/ 'expert, master'
- /namir/ 'expert, master'
- /w$_2$adhar/ 'expert harpooner' (as NcMANA also means 'harpoon')
- /albal/ 'expert, master'
- /w$_2$adhe/ 'expert food-gatherer'
- /w$_2$alilj/ 'expert hunter'

Of the more general forms meaning 'expert, master', /albal/ is most common. It is possible that /albal/, /maba/, and /mirab/ have the same root (cf. also verb /-mab-bu-/ 'to do [it] well'). All of the forms are used to praise someone for a successful performance (and need not imply habitual expertise).

The existence of such lexical "agentives" compensates for the absence of any productive agentive derivation from verbs. The only mechanism available for creating "agentives" from verbs is usage of the regular Relative suffix /-yung/[§16.4], but this is formally a clausal subordinator rather than a lexical derivation.

The opposite of "good/expert VERB-er" can be expressed in some cases by adding /-aEi/ as cpd. final to the lexical agentive:

- /aat/aEi/ 'poor hunter'
- /aat/aEi/ 'poor food-gatherer'

However, this formation is not attested with the others. In the case of /lamabu/, a comparable sense is expressed by adding /aladi/ 'bad' as cpd. final: /lamabu-waladi/ 'bad singer' (here we may recognize /-aladi/ as the cpd. final form). Of course, /aladi/ 'bad' by itself can be used predicatively ("he is bad", etc.) to indicate lack of expertise (or success) in an unspecified activity.

Another "agentive" form is /wun/ganEi/ 'good dancer', based on /wun/gan/ 'dancing' (semantically an abstractive verbal noun) with cpd. final /-aEi/, found in a few NAdj cpds. The corresponding expression "poor dancer" is formed by replacing this final by /aladi/ 'bad', hence /wun/ganEi/.

The cpd. final /-aEi/ illustrated above can be identified as an NAdj meaning '[be] absent' or 'not exist', which is always predicative in form (i.e., with intrans. pronominal prefix), except in these agentive compounds. In its regular sense it occasionally takes a cpd. initial: /-w$_3$ar/ganEi-/ 'absent, nonexistent' can be used with reference to foods (see Table 14-1, bottom right) but can also be used loosely as an equivalent to /-aEi/ in general, and we can cite /-lw$_2$ar/ganEi/- 'having no power' (§7.2.2), cf. /-lw$_2$ardung/ 'having no power' (§7.2.2). As a negator of NAdj (the latter being a cpd. initial), /-aEi/ is usually limited to the lexical agentives just mentioned, but we can also cite /amala/ 'elegant, splendid' vs. /albal-ganEi/ 'indigent, lacking nice possessions'.

It is possible that /alba$/Ei$/ is present at least historically in some other (now frozen) combinations: /ana-marya/ 'There is/was no food' (§14.14 and refs. there). However, clearly /-aEi/ is restricted as cpd. final to a tiny number of combinations. Generally what might be a simple privative expression in other languages is represented in Nunggubuyu by a separate clause like /-w$_3$mala$/Ei$/ 'There is/was no food' (with /-aEi/ as predicate).

14.22 /-w$_2$alilj/ 'pair of'.

In addition to the regular Dual (Du) suffix /-w$_2$/ (§4.15) with nouns, /-w$_2$iyung/ 'with some kin terms (§5.3), and other Du markers with personal pronouns (Chap. 6) and demonstratives (Chap. 7), and
other semantically similar elements (such as Dyadic forms of kin terms, §5.6), there is a special ending /-w alij/ 'pair of'. It is possible to regard this as a general nominal formation which is functionally similar to Dyadic forms (-yij/, -j/, etc.) used with kin terms, and there may even be a partial historical identity. Another possible relative is the root in Dyadic alij 'husband and wife' (with Dyadic ending), Pl /miJ-galJ-/j/, though here the root is either /al0-/ or /w,al0-/j/, in any case not //w 2 // with the same //w 2 // as in /-w alij/. (I suspect that /-w alij/ has been historically reshaped under the influence of Dual /-w 2 //.)

The exx. of /-w alij/ are:
/manbha:yum-balij/ 'pair of members of /manbha:yum/ moiety' 14.9.3
/sand-iri:j-balij/ 'pair of /girija/ moiety' 14.9.3
/suru-wurnun-un-balij/ 'pair of /surunun/ clan' 20.11.4, 20.15.7 (Pl reduplication)
/dhudi:badi-n-um-balij/ 'pair of white men' (elicited)

In the three textual exx. listed above, the stem itself is Pl in form. I am therefore not sure of the correctness of the fourth, elicited ex., which involves /-w alij/ added to Sg stem form.

The exx. suggest that /-w alij/ is not common, and is effectively restricted to terms designating broad social categories (clans, moieties, races), though other combinations would probably be acceptable (at least marginally).

14.23 Diminutives (compounded or by consonantal "symbolism").

The NAdj /-w irig/ and /-w in1g/ (and their Pl counterparts /-w ura:yum/ and /-w um-pa:yum/, §4.14), both meaning 'small', can be used as finals in Nc-NAdj cpds. of the type described in §14.5. (They can also be used as un compounded NAdj.)

I can give no textual exx. of cpd. final /-w in1g/ or Pl /-w um-pa:yum/.

/wum-ari:jg/ 'small group' 52.4.3pred (quadreg., §14.20)
/dhalamer-irig/ 'having small hind leg'
/ya:ni-iri:jg/ 'having small (low) voice' TNT 26rdp (/ya:n/)
/wama-iri:jg/ 'small boat/canoe' 161.5.3, 167.21.1 (Table 14-1)
/wam-wa:ri:jg/ (Pl of preceding) 112.5.1

/wum-ura:yum/ 'small grass(es)' 142.6.5
/asal-'la-wa:ri:jg/ 'small rivers' 110.1.3 (rdp. Pl, §4.14)

Irregularly and problematically, shows that /giri:/ is (cryptotypically) plural in Nunggubuyu though (same) singular in English, although plurality is not marked by regular inflections for nonhuman nouns in Nunggubuyu.

Note that the second and third items in the list at 110.1.3 ('bahuvrihi' cpds. translatable as 'having [adjective][noun]' (§14.5)).

While a few textual exx. can thus be cited of this formation, it is not a high-frequence one (indeed is strikingly uncommon in comparison with diminutives in many other languages), and has a strictly literal sense (not, e.g., being used merely for endearment or to mitigate requests).

The comparison of the two NAdj for 'small', /w irig/ and /w in1g/, suggests the possibility of this representing a minor instance of consonantal symbolism. Indeed, of the two, /w in1g/ is more emphatically diminutive, being generally used for very small objects and very young children.

There are two other possible instances of such consonantal symbolism. First, we have /murunun/ 'elder sibling' vs. /murunun/ 'younger sibling' (Figure 5-1), though the two terms are not always used strictly with reference to age.

Second, there is a curious alternation of two words (NAdj) meaning 'slowly' (also in some contexts 'softly'): /w uruguli/ and the less common /w un-uguli/. Unfortunately, the latter is not attested in texts (the former is attested many times; in addition to citations in dictionary entry add MT 3, 5, 10, 13, 23 and TNT 24). The form /w un-uguli/ seems more emphatic about the slowness/softness and this is compatible with diminution. (Etymologically, /w irig/ and /w in1g/ may represent a partial convergence of two unrelated elements, cf. Ngandit diminutive cpd. finals /-girikirin/ and /-mara/, respectively.)

14.24 Irregular and problematic sets.

In this section we mention briefly some irregular and otherwise difficult sets of items which seem to be related to each other derivationally in some obscure way. Some of these relationships may turn out to be historically revealing.

a) /w2albalg/ 'wide' [NAdj]; /w2alda/- 'be stretched out, extend out'; /wagamalhdi/- 'hammock shark' (perhaps /waran/ 'ear' plus /w2aldu/ 'jutting out')

b) /w2al/- 'stem, trunk' (bound noun root); /w2albalma/- 'to climb tree'; no clear semantic link to (5) but phonologically similar

c) /langgalu/ 'freshwater fish (rising from mud at first rains)'; /langala/- '[freshwater fish] to rise from mud'

d) /nalngala/- 'be white, bright'; NAdj /ngal-ngalalu-j/ 'be white, bright'; /wilal-gil-/- 'go in front, lead'; /(Eaga-)ragig/ 'first [to be out]

(e) /munung/ 'jump into water' -
(f) /w2albalg/ 'wide' [NAdj]; /w2alalma/- 'be stretched out, extend out'; /w2alaldhu/- 'jutting out'
i) /hagaram/ 'speech, talking'; /=hagaram/ 'to be noisy'.
ii) /hunwarga/ [bound noun root] 'sickness'; /=hunwanga/ 'be sick'.
iii) /bilagwa/ or /bhiragwa/ 'weak, unsteady, shifting'; /bilwila/ 'sway, bepliant'; /=biluya/ 'till'.
iv) /wbarliha/ 'be stiff, sore'; /=wbarliha/ 'be stiff, sore'.

Concerning the noun /yam/, which is a bound noun root, we can note a few recurrent patterns:

- /anYja:-/ 'speech, talking'; /=anYja:-/ 'to be dark'.
- /=a:gamba-/ 'to roast in oven'.
- /=muda-/ 'get dark'.
- /=amuda-/ 'get dark'.

The three stems based on 'two' have a further syntactic peculiarity in that they seem to prefer to occur in predicative NAdj form. Thus instead of saying 'Two [men] went', in Nunggubuyu it is more idiomatic (though not obligatory) to say 'They were two, they went'.

The three numerals beginning with 'two' lose the //w // after ANA and MANA noun classes:

- /=muda-/ 'get dark'.
- /=amuda-/ 'get dark'.
- /=a:gamba-/ 'to roast in oven'.

Further numerals are expressed chiefly by juxtaposing two or more of these, thus '5 2' can mean '5'. One can use /anYja:-/ 'hand-two' for '10', but it is more usual to just repeat '5'. For numerals from 11 to 20 it is possible to use similar expressions referring to the feet (i.e., toes).

It is not clear whether the extended form /wula-/ seen in the word for '4' is an archaic form of /wu ula-/ 'two', or is a borrowing (cf. Ritharrngu /bulal-/ 'two').

From /anYja:-/ we can get a form with at least two and often three initial reduplicative segments, meaning 'one by one one at a time, singly': /anYja:- anYja:- anYja:/; /anYja:- anYja:- anYja:/ see dictionary entries, especially s.v. /anYja:-/ for citations.

The basic forms are:

/arnJa:bugij/ 'one' (Human Sing /arnJa:bugij/), cf. also /arnJa:bugij/ 'together'.

/arnWula-/ 'two', including Du suffix /-wai/; /wulan/ 'three', frozen combination of 'two' plus /=anYja:/ 'other'.

Further numerals are expressed chiefly by juxtaposing two or more of these, thus '5 2' can mean '7'. One can use /anYja:-/ 'hand-two' for '10', but it is more usual to just repeat '5'. For numerals from 11 to 20 it is possible to use similar expressions referring to the feet (i.e., toes).

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Chapter 15
Syntax: "phrase" and "clause" level

15.1 General.

In this and the following chapter we deal with a number of basic syntactic issues. In the present chapter we consider phrase- and clause-level phenomena, and complex (multi-clausal) phenomena in Chapter 16.

Unfortunately, this is a language in which even the identification of such units as phrase and clause is highly problematic (see next sections, below). Therefore the division into Chapters 15 and 16 may, ultimately, be unmotivated or merely partially motivated.

A rather different perspective, moreover, can be obtained in Chapter 17, which looks at selected aspects of morphosyntax in terms of their functional interactions in discourse, with reference to a text (given schematically in "English" transposition for readers' convenience). As that chapter indicates, a great deal of Nunggubuyu morphology is discourse-sensitive, and a compartmentalisation of morphology vs. syntax may result in serious misunderstanding.

The same remarks about morphology and syntax should be kept in mind in the present chapter. Its apparent brevity is substantially compensated for by the injection of discourse and syntactic frames of reference into the earlier morphology chapters, and Chapter 17 on functional discourse analysis.

Some sections in earlier chapters which are relevant to the understanding of material in Chapters 15-17 are these:
- pronouns: §5.3, §6.8, §6.10
- demonstratives: §7.4, §7.7, §7.11
- verbs: Chapter 10 (especially §10.11)
- particles: §12.1, §12.2, §12.4, §12.10
- postpositions: §12.21 (also §4.32, §6.13, §7.30)
- interrogatives: §13.2, §13.8

15.2 Status of "NP."

Although the notion word in Nunggubuyu is comparatively straightforward, this is not true of noun phrase (NP), a bread-and-butter...
§4.2), we might begin by hypothesizing that instead of a phrase surface-structure independence of coreferential words in a "clause," phrasal unit in more familiar languages. Because of the general such as a (referential) noun and a modifying NAdj (adjectival noun, NP) we have independent positional words which intervening constituents. The alternative is to try to save the structure having NPs, and surface structure allowing demonstrating its validity in any empirical fashion. In addition, the effective absence of coreferential-NP deletion (Equi), see §16.2, eliminates a possible source of direct evidence for NP as a unit. In this section we will describe basic patterns of surface-structure distribution and whatever syntactic facts we can dig up which are relevant to the NP issue. Although readers are encouraged to make up their own minds after considering the data, my own view is that strong forms of the appositional and NP analyses are misleading and that we have both constructions (in surface structure) with an inherently fuzzy boundary. Hence I adopt a fuzzy-NP analysis.

First, we want to factor out sequences which might look like multi-word NPs but which are in fact divisible into subject and predicate (comment). This is fairly obvious in the case of (morphologically) predicative NAdj—i.e., with intransitive (verbal) pronominal prefix (Table 9-1) rather than regular NCIN prefix (§4.7). However, nonadjectival (common) nouns (§4.2) have no morphological form for predicative use, and NAdj arcs are only optionally put in semi-verbalised form when used as predicatives. Exx. where we recognise a subject/predicate structure include these:

(15.1) nə'layura ana: 'n1 nə'la-ha-n1 nə'la-na-n1 bee sp.[Fred] this[Subj] I chopped it I saw it 'This is a beehive, I have seen it and cut it down' (143.2.3 with verbs added for clarification)

(15.11) rawind1 ana-laGu

This is a beehive, I have seen it and cut it down' (143.11.6)

Actually, distinguishing subject/predicate constructions from NP-like sequences (functioning as arguments in a larger proposition) is itself difficult, and we will see (§15.5, below) that some words may have debatable (or intrinsically fuzzy) status in this respect, but for now we will factor out obviously predicative constructions. In this pattern aside, we now turn to instances of fairly obvious appositional structure involving two (or more) nouns with the same reference (though possibly slightly different sense):

(15.11) nuru-warga=warga-n-di-maga, gabi, arulg, cheeky-one we got lots bee bee stinging 'We got lots of bees, young bees, stinging ones' (143.3.4; /arulg/ means young /gabi/ bee)

(15.1) wuru-yumun=gu1-ni-maga, wara-landhur wara-babab [dogs] sniffed [dogs] 'We cooked it to whatchaamacallit? to fire' (143.16.2 cf. §13.10 for 'whatchaamacallit?')

(15.vi) wara-min'-n'ambara, wara-olorde-old-men elders old men (143.16.7)

In (15.iv) and (15.vi) the appositional nouns are identical or nearly so in meaning; in (15.11) the term /arulg/ is more precise than /gabi/ but the two do not here denote separate (conjoined) entities. Note that appositional nouns typically have similar inflectional morphology, including case markers (15.v), and that they may correspond to a subject- or object-marker in the pronominal prefix of a verb (15.iv).

From the perspective of English, we might incline to recognise apposition as a separate construction when both words are (common) nouns (Nc), but suggest a NP analysis when one is adjectival (i.e., a nuclear Nc and a modifying NAdj). However, this is hard to justify in Nunggubuyu. In (15.11) we have two Nc followed by an (English) NAdj, and there is no obvious difference in status between the Nc's and the NAdj. Moreover, essentially all human nouns (except kin terms and names) are formally NAdj; this applies to 'elders' in (15.vi) and presumably to the appositional English loanword with it.

A good case could be made for sequences containing a Nc and a NAdj as forming a NP if we could adduce idiomatic or other fairly standardised NAdj-Nc (or Nc-NAdj) units. English, for ex., has many such units in flora-fauna and many other domains (white oak, white birch; old man; double-play). Unfortunately, Nunggubuyu lacks such standardised expressions, except for some frozen or otherwise (partially?) fixed compounds (§14.5), which are arguably outside the scope of the present problem.

Of course, we do sometimes find a NAdj directly adjacent to a (semantically) referential noun with no pause between them, so that we have what looks like a NP structure. However, obviously appositional nouns may also be run together like this (15.iv, 15.v), and when descriptive NAdj and referential noun are tightly juxtaposed either order is possible:

(15.vi) wuru-warga=warga-n-di-maga, gabi, arulg, cheeky-one they saw [honey] there[Distant] wara-'rawind1 wara-narangur big-mob many women many 'Many women saw (found) honey over there' (143.2.5-6)
Note that /Wt/ jarmwindi/ precedes the nuclear noun in (15.vii) but follows it in (15.viii), and also that (15.vii) has a second word (big-mob, from creole English) apparently functioning as another descriptive adjective on the other side of the nuclear noun.

A similar flanking structure occurs in another ex. where the item in the middle happens to be a demonstrative pronoun:

(15.1x)

ana-ma/-'jim/yu an-uma-mi ana-umu/'gal-in/yu

'fatty one that [Anaph], big one'

Here /man/-a/ is NAdj (unlike its common No usage with regular MANA noun-class marker), and both flanking NAdj take Relative suffix /-yn/yu/ in its redundant, adjective-reinforcing usage rather than in genitive or 'about, concerning' sense ($§4.30$).

In general, inspection of a large number of exx. suggests that combinations of a (semantically) descriptive NAdj and a nuclear (referential) noun (which may be formally No, kin term, or human NadJ) do not differ in surface structure from appositional sequences like

(15.xi)

'As for them, they went and [stopped] there, those two women' (17.2.1-3, initial mention of women)

These and many other exx. show that a) a Nominaive pronoun or a Contrastive form with /-yun/yu/ ($§6.3$, $§6.8$) may be directly juxtaposed to a coreferential noun, as in (15.x), twice in (15.xi), and 'as for us' in (15.xiv), but b) the pronoun may also be separated from the coreferential noun as in (15.xi), twice in (15.xiii), and 'they' (whites) in (15.xiv). Moreover, when the pronoun is directly juxtaposed it may precede the noun as in most of the cases above, or may follow it as in (15.xi). The formal evidence is thus not very different from that for adjectival or Relative modifiers plus noun, discussed above, though overall the pronouns show somewhat more of a tendency to be tightly attached to the noun.

Another point which should be made here is that independent pronouns generally carry out specific discourse functions which set them off from nouns. Contrastive pronouns in /-yun/yu/ ($§6.8$), a common and important type, involve an explicit contrast with another referent, usually an NP of some kind in an adjoined clause. Even simple Nominaive pronouns usually have at least an attenuated discourse function of this general type. This is an additional factor favouring an appositional analysis of the pronoun-noun combinations shown above. See also $§17.6$, below.

Probably the best case for an approximation to surface NP status is the combination of a demonstrative pronoun (DemPro) with a nuclear referential noun. There are quite a few exx. where a DemPro seems quite closely linked with a noun, though once again we can make no hard generalizations about relative orderings:

(15.xv)    wu-gu-ru "net" wirima=maya-nya wa:-dhurabada

they call it white people

'As for us Aboriginals we call it "net," the white people, [but] we Aboriginals call it "marja."' (64.4.1-2)

These and many other exx. show that a) a Nominaive pronoun or a Contrastive form with /-ayungj/ ($§6.3$, $§6.8$) may be directly juxtaposed to a coreferential noun, as in (15.x) twice in (15.xi), and 'as for us' in (15.xiv), and b) the pronoun may also be separated from the coreferential noun as in (15.xi), twice in (15.xiii), and 'they' (whites) in (15.xiv). Moreover, when the pronoun is directly juxtaposed it may precede the noun as in most of the cases above, or may follow it as in (15.xi). The formal evidence is thus not very different from that for adjectival or Relative modifiers plus noun, discussed above, though overall the pronouns show somewhat more of a tendency to be tightly attached to the noun.

Another point which should be made here is that independent pronouns generally carry out specific discourse functions which set them off from nouns. Contrastive pronouns in /-ayungj/ ($§6.8$), a common and important type, involve an explicit contrast with another referent, usually an NP of some kind in an adjoined clause. Even simple Nominaive pronouns usually have at least an attenuated discourse function of this general type. This is an additional factor favouring an appositional analysis of the pronoun-noun combinations shown above. See also $§17.6$, below.

500

$§15.2$

(15.vii-x)
Thus, DemPro are (semantically) appropriate as modifiers of specific formal marking of status as prenominal modifier, in that Absolute referents (i.e., "NP"s), while most independent personal pronouns have discourse functions which operate at "clause"-level or higher. Nouns.

suffix /-yung/ is dropped more often when the DemPro directly precedes a coreferential noun (with no pause or sharp intonational boundary) than when it is more autonomous (or postnominal). This is only a trend (§7.7), and unfortunately textual statistics might be misleading since transcription may have tended to give full, context-independent pronunciations of each word).

Oblique form, §6.5), to say something like 'X is the man's' ('X belongs to the man') it is necessary to juxtapose the noun 'man' to a coreferential personal pronoun:

When coreferential pronoun, DemPro, and (referential) noun are when modifying nouns in such spatial cases. Rather, this use of DemAdv seems to be consistent with the general tendency of Nunggubuyu speech to give spatial parameters to virtually all narrated events. But however we analyse this use of DemAdv, the sequences just illustrated are sufficiently recurrent to warrant recognition as NP-like units on the same order as sequences of DemPro and noun. However, DemAdv ironically seem to be closely connected with NP-like units on the same order as sequences of DemPro and noun. However, DemAdv seem more amenable to forming a tight surface unit with nouns than do personal pronouns is presumably that DemPro have their form and sense determined at the level of individual referents (i.e., "NP"s), while most independent personal pronouns have discourse functions which operate at "clause"-level or higher. Thus, DemPro are (semantically) appropriate as modifiers of specific nouns.

Moreover, in the case of DemPro there does seem to be a partial formal marking of status as prenominal modifier, in that Absolute suffix /-yung/ is dropped more often when the DemPro directly precedes a coreferential noun (with no pause or sharp intonational boundary) than when it is more autonomous (or postnominal). This is only a trend (§7.7), and unfortunately textual statistics might be misleading since /-yung/ is sometimes hard to hear in rapid speech (my transcriptions may have missed /-yung/ in some places, and may have falsely restored it elsewhere since informants helping with the transcription may have tended to give full, context-independent pronunciations of each word).

When coreferential pronoun, DemPro, and (referential) noun are all present, the most common sequence is (personal) pronoun, DemPro, noun, as in (15.xv), above. This again suggests a closer relationship between DemPro and noun than between pronoun and noun. We now briefly mention possible multi-word NP units involving special forms of DemPros or pronouns. First, since the only specifically predicate-genitive forms are a type of personal pronoun (the unsuffixed Oblique form, §6.5), to say something like 'X is the man's' ('X belongs to the man') it is necessary to juxtapose the noun 'man' to a coreferential personal pronoun:

Another morphological form which can be combined with a noun is the special Type derivative of demonstratives (§7.25) meaning 'this kind', 'that kind':

However, the most significant combination for our purposes is the sequence of what is formally a demonstrative adverb (DemAdv) plus noun. By their very nature, adverbs like 'here', 'to here', or 'from here' would not be thought of as being potential modifiers

§15.2

of a (referential) noun, forming a tightly-knit NP unit with the noun. However, DemAdv ironically seem to be closely connected with nouns in many textual passages, and the overall indication is that this sequence has as much right to be considered a surface NP as any other. Basically, what is happening here is that an expected zero case form of a DemPro ('at that X', 'to that X', 'from that X') is usually replaced by an appropriate DemAdv. Since the noun ('X') takes its own case suffix, the sequence is of the type 'to-there[DemAdv] to-X'. Exx:

(15.xx) buri:~guru:~ warabar-guy
to there[Anaph] place n.~Allative 'that way to Warabarag' (14.12.4)

(15.xxi) yu-guni, ri~ladj-wuy, a-trouble-wuy
to there[Dist] bad[thing]~Allative trouble-Allative 'to that bad [business], to [that] trouble'

Such DemAdv may also be used to accompany the use of Allative-Dative case for grammatical direct or indirect object, and/or the use of Allative for grammatical subject (§4.22):

(15.xxii) n'ari~gama:ji~g n'ara~wayin,
she stole from her Emu
yu-guni, yir:egur:ga~wuy
to there[Dist] Brolga~Allative-Dative
'Emu stole [it] from that Brolga' (6.2.2-3)

It is probably erroneous to assume that such DemAdv are transformationally derived from "underlying" DemPro ('that', 'this') when modifying nouns in such spatial cases. Rather, this use of DemAdv seems to be consistent with the general tendency of Nunggubuyu speech to give spatial parameters to virtually all narrated events. But however we analyse this use of DemAdv, the sequences just illustrated are sufficiently recurrent to warrant recognition as NP-like units on the same order as sequences of DemPro and noun. However, DemAdv seem more amenable to forming a tight surface unit with nouns than do personal pronouns is presumably that DemPro have their form and sense determined at the level of individual referents (i.e., "NP"s), while most independent personal pronouns have discourse functions which operate at "clause"-level or higher. Thus, DemPro are (semantically) appropriate as modifiers of specific nouns.

Moreover, in the case of DemPro there does seem to be a partial formal marking of status as prenominal modifier, in that Absolute suffix /-yung/ is dropped more often when the DemPro directly precedes a coreferential noun (with no pause or sharp intonational boundary) than when it is more autonomous (or postnominal). This is only a trend (§7.7), and unfortunately textual statistics might be misleading since /-yung/ is sometimes hard to hear in rapid speech (my transcriptions may have missed /-yung/ in some places, and may have falsely restored it elsewhere since informants helping with the transcription may have tended to give full, context-independent pronunciations of each word).

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However, the most significant combination for our purposes is the sequence of what is formally a demonstrative adverb (DemAdv) plus noun. By their very nature, adverbs like 'here', 'to here', or 'from here' would not be thought of as being potential modifiers
in various languages, and since there are at least some clear exx. of aposition in Nungubuyu as in (15.iii–vi), above, we will need grammatical mechanisms anyway to handle affix duplication. Since the same mechanisms are formally capable of handling concord within NP-like units, like the use of MDu in the pronoun and DemPro of (15.xv), above, there is no compelling argument from NC or case concord ruling out appositional (or fuzzy-NC) analyses.

Indeed, one might be tempted to take the opposite tack, and suggest that a grammatically appropriate NC and/or case affix might not always be stated (obligatorily) in every word in a closely-bound NP. That is, we might look for a tendency to drop some affixes on, say, a DemPro which is juxtaposed to a coreferential noun—or perhaps keeping affixes on the DemPro but dropping them on the noun. If we can establish that case marking of DemPro (or other word) differs in an interesting way, depending on whether it is clearly autonomous or bound up in a larger NP, this would be possible evidence in favour of recognising NP as a syntactic category.

There might be something to this, notably with reference to DemPro, and one can cite some exx. like the following:

(15.xiii) yi:-ba-gi yi:-nala•li•gi-ruj
that[Anaph] turtle-Locative
'at that turtle' (i.e., 'where the turtle was')
(14.10.2)

Additional exx. of this type and variations on it were mentioned in §7.4. The exx. generally involve omission of a case affix in one of the two juxtaposed words, as with the omission of Locative suffix /-ruj/ in the DemPro here.

However, there are difficulties in interpreting what is going on here. In yi:-ba-gi/- in this exx., the use of Functual form of the (NA class) NCinfl prefix implies the covert presence of a spatial case category, rather than true zero (Nomina•ve) case (§4.8). Thus we might call (15.xiii) an ex. of partial case concord, as well as (full) NC concord. Unfortunately, this omission of nonzero case affix which is hinted at by usage of Functual form of NCinfl prefix is by no means limited to elements in multi-word NP-like structures; it happens also, rather frequently, to isolated individual words (nouns, DemPro, etc.), as noted in §4.6.

This is not the only problem in interpreting (15.xiii). To begin with, some "case" suffixes turn out to have special, skewed meanings when added to DemPro (or DemAdv), see §7.18-20. Second, we have already mentioned that DemAdv rather than DemPro are often used as adjuncts to "coreferential" nouns in spatial (nomero) case categories, as in (15.xx-xxi), above. There are thus specific factors applying to DemPro in such combinations which make it hard to interpret the dynamics behind dropping of case marker as in (15.xiii).

Moreover, it is difficult to analyse combinations of personal pronoun plus noun in connection with omission of case marking, since some of the most important uses of such pronouns require or strongly favour usage of a non-case-marked pronoun form (regardless of case of coreferential NP); this is true of the important Contra•tive form in /-ayun/ and of the Nominative Form (§6.3, §6.6).

As for dropping of NCinfl prefix with DemPro or personal pronoun when part of a multi-word NP-like unit, this is impossible with personal pronouns (which do not use NCinfl prefixes), and when it happens with DemPro it is usually a device for making the DemPro predicative (?7.3-4).

To top it off, dropping of case suffix is also possible in obviously appositional combinations:

(15.xxiv) marí ama-•gay•water ama-•han•kada•waj
and [around] sea and [around] coastal jungle
'and along the sea, along the coastal jungle...'
(14.12.1, with Pervasive case, §6.23)

On the whole, then, concord patterns do not resolve the choice between NP and appositional analyses. However, there is one situation where a NP unit in a different sense may be motivated by concord data. This is conjuction of two or more NP-like units (each of which may be single-word or multi-word, or indeed covert) into a larger entity which may be cross-referenced (in the verb or by a DemPro or other modifier referring collectively) by a single NC category. We discuss this matter in our more general analysis of conjunction below, §15.7.

Another section, below, of possible relevance to the present issue is our discussion of "possession," actually a number of quite distinct constructions (§15.8). In addition to obvious combinations of possessed noun plus Relative noun or pronoun (in genitive function), we mention in that section a) kin terms with a partial indexing of "possessor" (propositus) via special prefixes, and b) terms for parts of named objects (plants, artefacts, etc.) which show whole-to-part harmony via use of derivational (inner) noun-class prefixes on the part terms. Such indexing mechanisms, and the possibility of juxtaposing the "possessor" (propositus; plant or artefact term), suggest a NP-like structure. However, even there we can argue for a kind of appositional structure, and in any event any conclusions about those limited types of "NP" based on their specific features would not help us with the more general analysis of "NP."

My general conclusion is that, while it is meaningful to group coreferential words together in some way, being associated in each "clause" with a particular grammatical relation (§15.9, below), these words can nonetheless occur in surface structure either separated by pauses (or intonational breaks) or by intervening constituents.

Personal pronouns may be juxtaposed to coreferential nouns and have a rather different discourse status (as well as different morphology) in the most important constructions. DemPro and some types of DemAdv (the latter showing no noun-class concord) are more consistently bound closely to coreferential nouns, but ordering is not fixed and even demonstratives may be separated from coreferential nouns.

Personal pronouns, demonstratives, "adjectives" (NAdj), and Relative modifiers (including genitive usage), may all occur independently as one-word units; when they do occur in the main "clause" as a (nuclear) noun, it is possible to regard the combinations as appositional rather than phrasal, but a fuzzy NP unit might be recognised in cases where the sequence is pronounced rapidly and...
without pauses or intonational boundaries. Aside from a fairly restricted compounding pattern (§14.5) forming single stems, there are no lexicalised or idiomatic multi-word NP-like units.

15.3 Status of “VP.”

Because of the flexible word order of the language, frequent pauses between component words in a “clause,” and the comparative freedom with which words in general, it is difficult to imagine any reason for recognising verb phrase (VP) as a syntactic unit in the sense of a verb plus adjacent elements (NPs, etc.).

In English syntax, VP is ordinarily recognised as a major division of a clause, excluding the subject NP (but including objects and other constituents). However, in Nunggubuyu, there are no consistent distinctions between independent nouns (or “NPs”) acting as grammatical subjects and those acting as direct objects—both regularly have zero (Nominalive) case, show Continuous NC-inf prefix or omission of prefix, and have no systematic differences in word order. To be sure, subject and object are distinguished by concord in the verb (since transitive pronominal prefixes mark both subject and object categories), and there are optional formal differences in the nouns which can be invoked to clear up a referential ambiguity (§6.22), but overall we have no real evidence from surface patterning that a VP unit excluding the subject NP has any grammatical status in the language.

It is perhaps possible to argue, citing certain respects in which transitive subjects behave differently from intrans. subjects and direct objects (absolutive), that trans. subjects have a special status, being more peripheral from the clause nucleus. For example, trans. subject is generally not indexed by compound initials or Multiple derivational prefixes in the verb; see §15.9, below, for more on grammatical relations. But this argument, would, at best, succeed in lumping trans. subject with other non-nuclear grammatical relations like instrumental, and does not establish that trans. subject is uniquely outside the main body of the clause. There is even less evidence that intrans. and trans. subject as a unit has such a unique, non-core status. We could mention that Contrastive personal pronouns (§6.8) in /-ayun g/, which are usually clause-initial and are arguably outside of the clause nucleus. For example, subject is generally not indexed by compound initials or Multiple derivational prefixes in the verb; see §15.9, below, for more on grammatical relations. But this argument, would, at best, succeed in lumping trans. subject with other non-nuclear grammatical relations like instrumental, and does not establish that trans. subject is uniquely outside the main body of the clause.

There is even less evidence that intrans. and trans. subject as a unit has such a unique, non-core status. We could mention that Contrastive personal pronouns (§6.8) in /-ayun g/, which are usually clause-initial and are arguably outside of the nucleus of the clause (see also §17.6, below), are predominantly associated with intrans. or trans. subjects, but aside from exceptions involving other relations there is good reason to regard this as a special status of discourse-sensitive pronouns rather than of complete (subject) NPs, as pointed out again in §15.2, above.

While VP in the usual sense therefore seems even less well motivated than NP, we perhaps should mention that apparent formal verb sequences are not uncommon. One type of this is the sequence of a semantically “empty” verb (“to do” or “to do thus”) plus a normal verb:

(15.xxv) 

\[ \text{n^i=yama-} \quad \text{n^i=yimur} \quad \text{gi-} \quad \text{n} \]

It did thus it sniffed 'It sniffed around (like this)' (143.13.6)

This sequence is repeated later in the same text (with different subject), see 143.16.3.

Repetitions of identical, synonymous, or nearly synonymous verbs are common in Nunggubuyu texts and serve a variety of functions. The type with verb /-/yama-/ ‘to do thus’ plus descriptive verb is not unlike the “NP” sequence of a Dempro and a coreferential noun, since /-/yama-/ is a kind of “deictic” verb semantically, taking a juxtaposed quotation or an accompanying gesture or onomatopoeia. Other types of verb sequence include a discourse pattern where a new event or activity (especially of motion or other.

verbs), so that “subject” and/or “object” may show up as a one-word clause, a juxtaposition like (15.xxv) can be analysed as a sequence of two clauses which happens to be pronounced with no pauses or sharp intonational boundaries, a pattern which is also possible with longer strings with two or more verbs each having subject NPs and other constituents next to it.

Since there is also no special Capping rule applying specifically to a VP-type unit (of any kind), I conclude that there is no formal syntactic evidence for VP, even a “fuzzy VP” like the “fuzzy NP” structure hesitantly recognised in §15.2, above.

15.4 Basic word order patterns within breath/intonation groups.

The question of even statistically dominant word order in “clauses” is quite difficult to analyse in this language. We have just seen that a “NP” may show up in the form of two or more surface words, separated from each other by pauses or other constituents (such as verbs), so that “subject” and/or “object” may show up in discontinuous form. As we will see in our textual analysis in Chapter 17 (especially §17.7), breath/intonation groups typically do not correspond to syntactically “logical” clausal or phrase divisions; often a noun or “NP” is uttered in isolation either as an introduction to a new episode unit (in which case the noun may or may not have a specific grammatical relation in an ensuing predication), or as an “afterthought” unit added to an already complete “clause” (with terminal intonation) for clarification or just as a filler.

In the present section we will disregard clearly set off preposed or postposed (afterthought) chunks and look at sequences of words pronounced more or less as a single breath/intonation unit (or string in the sense of Chapter 17), roughly corresponding to a sequence of words not broken up by commas in NNET. (This notion is not rigorously operationalisable since it is based on a combination of terminal intonation patterns and pauses, but is perhaps of some use anyway.)

§15.3, §15.4
words. This matter is dealt with in the respective morphology which they specifically negate. This applies to negative words word usually represents the topical subject), and cannot apply to another word (i.e., cannot occur as first word in a string. They usually, but not always, follow the first word in the string if this applies to interrogatives like 'what?' and 'when?'. Interrogative ordering rule does not necessarily apply to /wa:/ 'it is absent') and particle /yagi/ (§15.6). See below for an /yamba/ 'because' (§12.15, see discussion of surface word specifically negated is normally an immediately /yu:ga/ (§12.10). This applies to interrogatives like 'what?' and 'when?'. Interrogative particle /yunga/ (§13.1) may precede or follow the WH word. the above generalisations are essentially rigorous (except for any word-order inversions in the first case). Other generalisations are possible but indicate predominant rather than rigorous patterns. Moreover, such "syntactic" ordering rules as we may be able to glean (as statistical patterns) may well turn out to be underlying discourse-based rules. Moreover, exceptions to the rules can be thought of as representing on-line production idiosyncrasies reflecting the idiosyncratic Nunggubuyu management of "memory" (i.e., the tolerance of presuposed and afterthought chunks and frequent usage of "whatchaamacallit?" filteres, [§13.10]. Therefore a gross statistical display of, say, V3O vs. VSO and other ordering possibilities would have to be taken with salt and could well involve questionable coding procedures. We consider instances where a verb (/4/) or nonverbal predicate (Fred) co-occurs in a string with /S(subject) and/or /O(object), the latter defined as "clause"-level direct object (usually but not always cross-referenced by pronominal prefix in the verb), as our input we consider Text 16 (presented as "Text A" in Chapter 17), along with Texts 143 and 161, all from NMBT. I count 12 exx. of [Fred S] where Fred is a (formally) predicative NADJ, a noun (No or NADj) not in predicative form with pronominal but functioning as predicate, an Empathic pronoun (§6.9) in predicative function, or an unprefixed (predicative) demonstrative pronoun (§7.2, §7.4). I count only one ex. of [S Fred], and one flanking construction of the type [Fred S Prev]. Exx. are:

(15.xxvi) *\thefish\,\aneously*, aba wu-gaman

Multi-good now *its[ANA] beehive*

'Then the (inner) hive (honey/wax) was good' (163.1.4) [Fred S]

(15.xxvii) yar-wi yigaj ana-habara

[it-was-l]this indeed coolamon

'The coolamon was here' (163.6.1-2) [Fred S]

(15.xxviii) warn-garramintarminy an ba::-wi-yuji honey bee sp. [it-was-l]there-farther-on

'Honey bees (of this sp.) were beyond there' (163.12.2) [S Fred]

(15.xxix) wu:jaidug anamission-area wu:jaidug

it was finished

'the mission was completed [built]' (163.31.3-4) [Fred S Prev]

See also #112 and #139 in Text A (Chap. 17).

I generally interpret flanking structures as based on a primary sequence type XV with an extra X added. Thus (15.xxix) is an occasional expansion of the [Fred S] type seen in (15.xxvi-xxvii). The one counterexample, in this small data base, (15.xxviii) with S preceding Fred, is perhaps not significant, since it is preceded by another honey bee sp. term, so the term beginning (15.xxvi) may be functioning in part as the final element in a list of app. with the following predication then run into it as an expansion.

On the basis of these data, and informal analysis of the rest of the texts, I conclude that nonverbal predicates regularly precede subjects if the two co-occur in the same string, but that some exceptions occur. The probable discourse motivation for this is that such predicates represent "new information" and are therefore highlighted, while subjects in such constructions are normally at least partially presupposed by the general context. If we suggest that initial position in this language correlates with highlighting, we can combine our result for nonverbal predicates with the earlier observation that WH interrogatives are initial, since WH interrogatives (whether formally predicative, see §13.5, or just arguments in a larger proposition) are inherently highlighted.

We now consider relative order of V and O when co-occurring in a single string (not separated by pauses). We omit WH interrogative object. In order to give a fuller idea of the type of exx, we will show all exx. from the three texts considered, in simplified "English" representations preserving Nunggubuyu order (hyphenated strings represent single Nunggubuyu words). Adjoins strings are shown in some cases. The underlined segment is the O.

a) OV order:

Text A, #114: ...he-fished, huge-ones now he-fished

he-hooked-them,....

(15.xxvi - xxix) §15.4

§15.4

508

509
With respect to on-line "memory" factors, note in particular that 'whatchamacallit?' representing O is postponed to the verb in (161.17.1), with correct noun following after a pause; this is the regular pattern in the texts for 'whatchamacallit?' constructions. By extrapolation, we may suspect that even when there is no 'whatchamacallit?' substitute, postponing of O may reflect a kind of secondary status. Although we will use the term "afterthought" to refer to added chunks following a clear pause or intonational boundary (§17.7), some cases of VO order seem to have approximately similar bases. It is also that some cases of VO order involve O nouns which are virtually redundant, as in 'we-peeled-it its-shell', 'it-smelled-its-liquid honey' (word glossed 'liquid' refers usually to honey or similar thick, viscous liquid), 'they-got-lots fat-one', 'it-unloaded-it load'. By contrast, OV word order correlates at least roughly with nonredundant, new, focal elements.

Difficulties in assigning OV vs. VO labels can be seen in such exx. as '....he-fished, huge-ones now he-fished he-hooked-them', where we assign OV order on the basis of ordering within a breath/intonational group (so that we disregard the segment before the comma). Of course, in a sense the string after the comma is just an expanded repetition of the material before the comma; since the O is "new" while the (repeated) verb is not, it is not surprising that O precedes the (repeated) verb.

In (161.22.4, ‘...for-it’ is an ex. of a Contrastive pronoun (§6.8). It is usual for such elements to occur prior to verbs with which they are associated, except that they may occur postponed to verbs (especially) when anticipating a contract with a noun in a following clause. Although we cannot account for local choices of OV and VO order in any mechanical fashion, we may conclude that both orders are reasonable common, and there is a tendency for OV to be associated with new, focussed O while VO is perhaps a bit less common and is associated with more redundant O; low-level "memory" problems also favour VO, especially when 'whatchamacallit?' word is present.

We now consider order of subject vs. verb, VO as opposed to SV. Preliminary analysis of exx. in the three texts in question shows no reliable differences between trans. and intrans. subject with regard to ordering, so we combine them here.

a) SV order:

143.5.3: he-kept-killing-them crabs.
143.10.4: as-for-it residential-area I-located-it [It-ls=]this.

Text A, #245: wife her-belly-burst.
Text A, #264: as-for-her wife other her-belly-burst.

b) VO order:

161.1.2-3: I-went-down canoe-seat I-chopped-it [-out].
161.3.5: we-ate-it, dugong we-ate-it.
161.10.4: we-will-go truck if[truck]=will-proceed.

161.6.1: he Wurajulu's-father they[MBl]-quarrelled-together.
(i.e., W's father and someone else quarreled).

Text A, #187: they-searched-for-him, islands[Collective] they-did-to-them[islands]...

With respect to the exx. of the form 'whatchamacallit?' we may conclude that both orders are reasonable common, and there is a tendency for OV to be associated with new, focussed O while VO is perhaps a bit less common and is associated with more redundant O; low-level "memory" problems also favour VO, especially when 'whatchamacallit?' word is present.

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(i.e., W's father and someone else quarreled).

Text A, #187: they-searched-for-him, islands[Collective] they-did-to-them[islands]...
I spoke, bishop he-arrived.

161.2, 3: I spoke, Mr. Montgomery he-arrived.

161.2, 5: I spoke, [at-]Dharrari.

161.16, 4: now it was-something-for-me.

161.24, 1: he now Dick-Harris we[ExPl]-met-together here.

(i.e., and D.H. met)

161.27: now [at-]Nusabbar saw-assav it-sat.

161.35: multi[man's n.] and in-English he-will-tell

he-will-tell-him I it-is-this Nunggubuyu-only

I took-it.

('it-is-this' possibly appositional to 'I')

161.35, 4: as-for-him in-English multi; it-is-he[Emph]

he-will-take-it.

(i.e., he will translate it into English)

VS order:

Text A, #159: he-farted suddenly they[flies]-swarmed

they-smelled-his-excrement flies.

Text A, #250: he-jumped-out that-one the-one-whom-he-eate.

143.3, 2: it-filled[Ref] hillvean, and coolamon.

143.16: it-smelled dog.

161.5, 4-5: he-wanted-you Dick-Harris.

161.20-4-5: itCora, a boat-arrived [with-load] Cora.

161.27: now it-arrived Cora.

161.28: now there he-arrived whatchamacallit?, Mr.-Hughes.

161.28: now he-arrived Mr.-Hughes, he-reached-us

161.31: in-the-bush they-who-sat people.

(i.e., the people who were staying in the bushland)

161.33: it-arrived sickness.

flanking SVS:

Text A, #72: as-for-them place-n. they-sat babies and wives.

161.12: mission-of-Numburar it-stands this.

161.22: at-[for-]Cora, a boat-arrived (with-load) Cora.

161.27: now it-arrived Cora.

161.28: now there he-arrived whatchamacallit?, Mr.-Hughes.

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Text A, #159: he-farted suddenly they[flies]-swarmed

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161.28: now he-arrived Mr.-Hughes, he-reached-us

161.31: in-the-bush they-who-sat people.

(i.e., the people who were staying in the bushland)

161.33: it-arrived sickness.
§17.9, how such particles as /adaba/ 'now', /mari/ 'and', and
/araqa/ 'suddenly' normally precede the chunks they modify, and how
/n-a/ 'and' occurs either at the end of the first or at the beginning
of the second of two closely linked strings.

For order of elements within multi-word "NPs", see §15.2, above.
Although the prevailing structure is (arguably) appositional rather
than phrasal, so that the individual words can occur independently
of each other and do not have fixed ordering when they occur, we
discuss in this section that Contrastive and Repetitive pronouns
usually precede a coreferential noun, and demonstrative pronouns
more often precede than follow a coreferential noun.

The question of stylistic inversion of word order from one
string to a repetition thereof is our final topic in this section.
Because the basic word order is so flexible anyway, identifying
instances of inversion as stylistically motivated is problematic
even when we do have variant order in a repetition.

In general, we do not seem to get stylistic inversion in those
repetitions which indicate real repetition (or continuation) of
an action described by the first string. We will see in our analysis
of Text A in Chapter 17 a number of narrative sequences of exactly
identical strings.

On the other hand, inversion does seem to be a possibility when
the repetition is not an expression of actual repeating. We can see
this best in occasional exx. involving a negative word like /wa/='r/, where
the obligatory proverbal position is reversed in repetitions:

(15.xxx)
wa='r n'au=na-ni, n'au=na-ni wa='r
not I saw him I saw him not
'I didn't see him, I didn't see him' (5.15.4-5)

There are not too many exx. exactly like this in the texts, but I
noticed this pattern in unrecorded materials as well and regard
this ex. as representative of a real type of inversion. It is likely
that occasionally textual exx. involving elements other than a negative
word can be accounted for by similar deliberate variation in order
of constituents, but since such inversion does not apply to
encilical particles and probably cannot apply to WH interrogatives,
the exx. involving words other than a negative word will be exx.
with a verb and adjoining nouns or pronouns, which therefore have
a somewhat indeterminate ordering pattern anyway.

15.5 Status of "clause": double-predicate constructions.

Like "NP," the syntactic unit "clause" has a fundamentally problem-
atic status in this language. We will not always bother to put
quotation marks around it, but readers should understand that it
may not be a well-defined syntactic unit. We discuss a number of
types of "subordinated" clauses in Chapter 16 (Relative, Purposive,
and several of roughly gerundial status), none of which is sharply
reduced to a purely formal and which therefore all have many characteristics
of independent main clauses. In those constructions we can usually
for having clearcut clausal boundaries in principle, since
nouns and adverbs may be logically linked only to one or another
of the main predicative nuclei (main vs. subordinated verb), though

§14 §15.4, §15.5 (15.xxx)
even in those constructions there may be some nouns, for example,
which have ambiguous (or ambivalent) clause assignment. Much the
same point can be made about conditional constructions (§16.7).

In the present section we are concerned mainly about identifying
clause boundaries in the more usual sequences of expressions which
lack formal subordination markers. Since subordination in the strict
sense has low text frequency (only conditionals and Relative clauses
have respectable numbers of occurrences in our texts), the problems
raised in the present section apply to most Manggu bagu speech.

There are really two problems arising from the Identification
of clause boundaries: a) identifying clause nuclei (hence also the
number of clauses in a given stretch of speech); and b) assigning
peripheral constituents, mainly nouns and pronouns, to particular
clauses.

Since it is improper to equate clause nucleus solely with a
particular word class (i.e., verb), our first task is to enumerate
types of words which can serve as predicative nuclei. It turns out
that while inflected verbs are prototypical nuclei in this sense,
other types of words can also function in this way in simple
sequences which have every appearance of corresponding to clauses
in more familiar languages. In the following exx. we show a verb,
an uninfixed (predicative) demonstrative pronoun (§7.2, §7.4), an
Emphatic personal pronoun (§6.9), a formally predicative NADj
with intranslative coronal prefix (§4.2), another NADj functioning
predicatively but without this formal change, and finally a common
noun (No, §4.2) as predicative nuclei:

(15.xxxi) wu-gu-rai='yun wai-nu=gumu-ga-tarf adaba
as for them uncircumcised boys now
ba-gu-wugla wu=bu=ri=gi
there[Anaph]-still they-say
'So for their part, they stayed there' (55.7.1) [verb]

(15.xxxii) ba-ma='la mana-ngu
[its is]-that Centripetal
The floodwaters [were] coming there' (cf. §7.5)
(21.4.5) [predicative DehPro]

(15.xxxiii) n'aya-waj ana=-ni
[Emph] this[ANA]
'It's me!' (5.6.2) [Emph pronoun]

(15.xxxiv) na-lmanbilbig
ndharnangur
Didjeridu[Drums-pipe] it is short
'The didjeridu is short' (66.2.9) [predic. NADj]

(15.xxxv) wuruyurji nuu-'ba-gi='yun
na-ndi=ndhu
slow[soft] that[Anaph] its force[noise]
'That sound [of didjeridu] is soft' (66.1.6) [ordinary NADj]

(15.xxxvi) yuqa anan
yes/no? Yamstick
'Is [that] a yamstick?' (13.29.1) [No]
Other words which can function as predicates are unsuffixed Oblique pronouns (used as predicate genitives, §6.5, §15.5, with optional adjoining coreferential noun, see §15.2, ex. §15.5.xviii), and WH interrogatives including (in principle) all simple interrogative-demonstratives (§13.8) and some others (like ‘who?’ in ‘Who is that?’, §13.3).

All of these items are predicative in the sense that they can be used in meaningful propositions which are “about” some referent, with no obvious ellipsis of some other predicative constituent (i.e., an underlying verb which gets dropped). The exx. given above are perfectly ordinary Nunggubuyu constructions (without the addition of another verb), and in some cases there is no verb which can be added without changing the meaning. There is, for example, no copula (verb) which can be used in such exx., though one could add a harmless verb like ‘to sit’ (meaning also ‘to stay’, ‘to be in ’Who is that?’, §13.3).

When we move away from simple, isolated expressions like these to running text, we find that serious problems emerge in our identification of predicative nuclei. To begin with, there is no reliable connection between breath/intonation units of any kind and individual predications. As will become clear in Chapter 17, where we analyse a text (Text A), strings (breath/intonational units) usually do not correspond to intuitive ‘Clause’ units; an intuitive clause may show up as two or three strings, but some strings contain two or more verbs or other predicative nuclei. These are not merely occasional divergences of strings from clauses, rather they are a persistent, regular pattern.

In applying the notion of predicative nucleus (hence clause) to such strings, we can only fall back on an essentially intuitive analysis, taking the various predicative nuclei as shown above as potential nuclei in their textual occurrences and playing each ex. by ear. In addition, such words as predicative NAdj (with inner, pronominal prefix) and predicative (unprefixed) DemPro are recognised as predicative nuclei even when (to an English speaker) this violates the intuitive construal. It should be frankly recognised that there is a circular element in any procedure for identifying predicative nuclei, and that this notion (and hence that of clause) may thus be an intrinsically ‘fuzzy’ one.

In analysing specific textual fragments, we notice in particular the frequent occurrence of two (arguable) predicative nuclei in a Nunggubuyu combination which would come out in English as a single clause. We call this the double-predicate construction, without necessarily committing ourselves thereby to any particular analysis (e.g., as ultimately one or two syntactic units), and without sharply distinguishing it from juxtapositions of clauses. The most typical subtype is that containing both a verb (or perhaps predicative NAdj) and an unprefixed (predicative) DemPro:

(15.xxxvii) ni:bu=bu=buri-yi,
   ni:ti=ti=pigi-wugij,
   he was sitting he-[was]-alone-still
   'He remained (there) alone' (29.1.3, cf. 163.14.3)

This type of construction is highly typical of certain NAdj, notably those meaning ‘fast’, ‘slow’, ‘alone’, and ‘left alone’. Again, this use of the predicative NAdj requires that it be true as an independent proposition; thus, negation of the overall proposition (‘He did not go there fast[NAdj], etc.) would require replacement of the predicative NAdj form by a nonpredicative form (nonpredicative) DemAdv, especially when the deictic category is (still) valid in the here-and-now of the speech event (as in the last ex. above, despite past tense in the verb), or when the deictic category is from the perspective of a protagonist within the narrative, as in (15.xxxviii). The DemPro must have a valid referent, and is therefore not used in negative counterparts of such exx. (which would have Locative DemAdv, §7.12). For narrative perspective see §7.26. Semantic restrictions are discussed §7.12.

Some exx. can be multiplied. They show a general tendency in Nunggubuyu to make use of predicative (unprefixed) DemPro rather than (nonpredicative) DemAdv, especially when the deictic category is (still) valid in the here-and-now of the speech event (as in the last ex. above, despite past tense in the verb), or when the deictic category is from the perspective of a protagonist within the narrative, as in (15.xxxviii). The DemPro must have a valid referent, and is therefore not used in negative counterparts of such exx. (which would have Locative DemAdv, §7.12). For narrative perspective see §7.26. Semantic restrictions are discussed §7.12.

As in the exx. shown, the DemPro in this construction most often precedes the inflected verb. One can thus consider the exx. to have begun with a simple predicate of location, with a following (often clarificatory) extension centred on the inflected verb. The location and sense of the DemPro seems to be about the same as in simple deictic predications, as in (15.xxxvii), above, and there does not seem to be any reason not to consider the DemPro in the last three exx. above as predicable to the same extent.

In addition to DemPro (which are vulnerable to the objection that they have no verb-like inflection), there are similar double-predicate constructions involving adjectival nouns (NAdj). Again, often a single English clause corresponds to a Nunggubuyu sequence with two predicative nuclei (an inflected verb and a predicative NAdj with inner, pronominal prefix):
predictive use and since truth conditions apply to them (as well as to the inflected verb). This leads inexorably to the uncomfortable suggestion that nouns and pronouns, which lack special predicative force, have "predicative" in some sense in many textual occurrences (e.g., when focused in some way), even when cross-referenced in a neighbouring verb. The lack of special case marking for subjects and (usually) for objects means that nouns/pronouns in these grammatical categories cannot be reliably distinguished on formal grounds from clearly predicative forms, as in (15.xxxvi) and (15.xxxvi), above. In view of the fragmented, chunky structure of much Nunggubuyu discourse (with pauses inserted more or less at will), and in view of the occurrence of nouns as isolation forms with no obvious grammatical relation in any nearby verbal predication ($15.9, below), we may have to recognise a certain tendency toward autonomous status for nouns (other than those marked for numero case category), making rigorous identification of predicative instances treacherous.

We should also mention briefly the possibility that some sequences of two inflected verbs might be thought of as a close-knit combination or even as a syntactic unit. We mentioned in $15.3,$ above (cf. 15.xxxv), that close-knit sequences of essentially appositional verbs are not uncommon (e.g., 'it-did-thus it-sniffed' meaning 'it sniffed around like this'). It is reasonable to consider these to be double-predicate constructions on the same order as those involving a verb and a different predicative element in the previous exx.

The status of specifically subordinated clauses is dealt with in the appropriate sections of Chapter 16. There is, however, one other syntactic test which could potentially be used to identify clause boundaries. This is due to the fact that negative words /wa:='!.i/ and /yagi/ ($8.1-2) define a domain ("negative context") within which each noun (including NAdj and NAdv) and verb (or predicative NAdj) must have certain inflectional features. We can thus determine the domain (scope) of the negation by examining the morphological possibilities for nouns and verbs. As we will see in our discussion below ($15.6,$ this test does not permit us to salvage the notion of "clause" as a rigorous syntactic unit; instead, the scope of a single negative word turns out to be variable, ranging from a single constituent to a sequence containing two or three inflected verbs. (However, the syntax of negation is consistent with the view that at least subordinated clauses are separable from the respective main clauses.)

Having discussed the question of how to identify predicative nuclei, and the use of negation to identify a type of syntactic unit (which in some cases coincides with our intuitions about clauses), let us conclude this section by discussing difficulties in assigning "loose" nouns (and other referential words) to predications even when we think we know what the predicative nuclei are.

(Using schematic "English" transpositions (preserving Nunggubuyu word order, with hyphenated strings corresponding to single Nunggubuyu words), consider the syntactic status of the underlined noun, pronoun, or DepPro in the following:

\[
\begin{align*}
\text{a)} & \text{ it-did-thus it smoke it went. (132.3.1)} \\
\text{b)} & \text{ now they-pounded-it now they-soaked-it that[Anaph] lily -root they-soaked-it. (132.2.1-2)} \\
\text{c)} & \text{ we-soaked-it[cypress shavings], now we-doused-ourselves, that[Imm] cypress, true-medicine. (131.1.2-3)} \\
\end{align*}
\]

('cypress' can also mean 'liquid medicine made from cypress shavings', so underlined NP could be covert direct object of 'doused'/poured', or subject of following 'it-was-true-medicine')

\[
\begin{align*}
\text{d)} & \text{ now they-hit-each-other fight[noun]. (6.3.1)} \\
\text{e)} & \text{ it[fly]-man-up, fly, he-smashed-it. (8.2.2-3)} \\
\text{f)} & \text{ they-went this-way they-went now country and they-made-it country. (9.5.2-3)} \\
\end{align*}
\]

In general, these exx. are problematic either because there is no obvious verb which they function as an argument of, as in (d), or because there are two neighbouring verbs and we cannot easily tell to which of them [nouns/pronouns] belong. In the latter situation we usually have no real problem of construal, since the noun/pronoun designates a referent who does play grammatical roles in both predications; the only problem is assigning surface "clause" boundaries, and this is more of a problem for the analyst than for speakers and addressees. Even in cases like (d) with a loose noun which does not play a grammatical role in a verb-based predication, there is usually no real construal problem for nouns to be dealt with in our section on grammatical relations, $15.9,$ below.

15.6 Negation, "negative context," and aspectual skewing.

The basic negative elements are these:

\[
\begin{align*}
\text{a)} & \text{ /girjag!, negative particle acting as one-word unit;} \\
\text{b)} & \text{ /yagi/, particle negating overt or covert proposition with potential meaning (including Future, Past Potential, and Evitative; note that imperative is subsumed under Future);} \\
\text{c)} & \text{ /arg/, requiring intrans. pronominal prefix, predicative NAdj negating existence or presence (in a place);} \\
\text{d)} & \text{ /wa:='!.i/ or /yagi/, formally (c) with dummy AMA class prefix, the most general negative word, negating a nonverbal constituent or an overt or covert proposition with active (nonpotential) meaning (including Past Actual and Present).} \\
\end{align*}
\]

Of these, /girjag/ is syntactically the simplest, since it does not negate a specific clause or other phrase in the fashion of /yagi/ or /wa:='!.i/, and it does not permit a subject NP, as with /arg/). Of course, semantically /girjag/ must negate something, but what it negates is generally a preceding statement by another speaker, or an expectation, hope, or goal implied by the narrative context. More specific subtypes are: negative answer to question (11.5.1-2, 12.4.4, 12.5.4); refusal to obey imperative (14.17.4); retention of suggested action (13.25.1-2, 161.13.2/3; possibly 18.18.4); contraction of challenge to addressee's claim (4.2.5, 5.9.1, 13.37.1, 14.12.4); realisation after addressee's challenge (like French
g'1) 5.9.2: failure of attempt or absence of favourable outcome
7.2.1 ('they-uprooted-sedges, and nori she-wanted-more-food', i.e., didn't get enough sedge-root food), 13.40.3 ('they-pulled-putselves-out and nori'), 16.2.2/5/3 and passim in Text 16 ('he-fished and nori, fish-was-little'), 40.16.3 ('they-came-behind and nori, they-gave-up [search]'), 43.16.4 ('hit-killed-him, nori'). 59.3/4 ('hit-killed-him, ran and nori, fire'), i.e., kangaroo could not escape because it was ringed with fires), 163.1.5 ('we-pulled-it and nori!'); absence (or delay of) expected event 43.1.4 ('fly-fly-fly-fly! [verbal root forms] and nori, further-on...', i.e., went further instead of stopping), 61.6.1 ('and later nori, he-throw-d spear-ready', i.e., he did not throw it just yet), 70.2.2 ('they-fought nori, not [wa='ri] they-were-hit', i.e., the spear missed). There is one apparent ex. of prohibition of criminal act in progress (36.5.2), but such prohibitions are usually expressed by /yagi/ instead, even when reduced to a single word.

In the 'failure-of-attempt' instances, note that there is usually a preceding verb indicating the (intended/attempted) action, with no indication until /girjag!/ (glossed 'nor') above, that the effort failed. There is often another expression following /girjag/ in this construction, clarifying why the action failed or the outcome was unsuccessful; note that this clarifying predicate is not negated unless another negative word is present in it. Another way to translate the failure-of-attempt constructions is with 'could not' or 'cannot' (hence 'it could not kill him' as an alternative to 'it tried to kill him [and failed]') in the absence of a verb meaning 'to try' and in the absence of a nodal element (verb or other word-type) for ability/potentiality. However, to indicate a 'just-missed' kind of failure (i.e., 'it could not quite kill him'), it is also possible to use other constructions involving Past Potential verb (§8.6) and/or particle /yin'ga/ ($12.7). For 'cannot' see also /yagi/ below.

In some of the above-mentioned cases, girjag/ occurs in repetitious strings girjag! girjag! girjag! or the like. We consider /yagi/ which negates potential predications (including future, imperative, etc.) For Past Potential Negative the verb has A-series pronominal prefixes and Past-3 inflectional suffix (Chapter 8), a form which is also used for Past Potential Positive when /yagi/ is not present. For Future Negative (including prohibitive) the verb has Nonpast, inflectional suffix and A-series pronominal prefix. In the rare Evitative Negative the verb is the Evitative suffixal form (with the option of using Nonpast) with A-series pronominal prefix (Chapter 8). There are also some special uses of the 'Past Potential Negative' form with /yagi/ which are best dealt with in other sections; for negative purposive clause see 89.2.3 and discussion 16.5, for negated clauses in hypothetical (as opposed to counterfactual) conditionals see ex. in 62.1.2/3 and discussion 16.7, and for gerundial 'while not VERB-ing' in sense 'before VERB' see ex. 47.19.3 and discussion 16.6.

Most textual exx. of /wa='ri/ have a co-occurring inflected verb, the overall construction being Past (Actual) Negative or Present Negative (Chapter 8). The Past Tense in NMET are 2.8.2, 5.15.4/5, 7.6.2/3, 14.18.3, 15.11.2, 17.13.5, 19.9.2, 21.10.2, 28.10.4, 41.7.3/4, 47.1.5, 47.4.5/6, 47.5.4 (two), 47.6.2/3, 47.7.3/4 (three), 47.9.1, 47.11.2/3, 47.13.2, 47.17.6, 47.22/3, 51.1.3, 69.5.7, 69.14.1/3, 70.10.2, 71.6.3, 73.4.1, 73.6.1 (if transcription correct), 100.4.1 (two), 117.3.3, 117.7.2, 117.9.2, 117.9.5, 129.4/5, 129.3.2, 124.1.2, 125.5.1/3, 157.15.1, 161.5.2, 161.26.1, 161.27.1, 161.28.1, 162.24.6, 163.2.2/3, 166.10.2/4, 166.22.2 (two), 167.1.2, 170.1.1. There is, in addition, an intriguing example of Past (Actual) Negative, negative in the sense of indicating a factual event which would not happen, i.e., the father could not see); contrast 'impossibility' exx. of /yagi/, top of this page.

(15.x111) $15.6 $15.6 $521
The occurrence of /wa='rt/ in Present Negative clauses is also well attested in the texts: 7.9.1, 47.10.6/3, 47.23.6, 48.1.4, 62.1.6, 71.30.1, 71.32.1/3/4, 71.33.1, 82.1.6, 91.1.1, 100.7.3/4 (three), 106.4/1/2, 106.5.3, 109.3.3, 110.4.3, 112.1.1, 112.4.5, 121.1.1, 121.2.1, 121.3.5/7/8, 121.5.5/1, 122.1.1, 126.2/4/5, 156.3.5. The usage of Present Negative is slightly circumscribed by the usage of Future Negative for some contexts (inability, negation of morally/legally improper behaviour, etc.), commented on in connection with /yagi/, above.

There are also instances where /wa='r/ occurs by itself as a kind of abbreviated negative clause, with the full pragmatic force based on the context. We should warn immediately that there is some danger of confusion of isolation forms of /wa='rt/ (implying a covert clausal accompaniment), and predicative use of /wa='r/ 'to be absent or nonexistent' (see below) when the subject happens to be in the ANA noun class. Exx. of isolation /wa='r/ along with my attempt to reconstruct the fuller clause which could have been used, are 13.23.4 ('You saw the billabong in our country. No [, you may not use it.] It is reserved for us.'); 40.5.3 ('No [, I have not come here because I have died.] I just stayed off course. '); 69.16.4 ('We spoke [about fighting], but no [, we didn't fight], they were lying. '); 71.2.4 ('They saw us [looking for a murderer], no [, they didn't find him then.] Later they recognised him.'); 143.9.2 ('They [Nunggubuyu] lived to 143.9.2 ('They [Nunggubuyu] lived to

It remains to discuss the following matters: a) negation of nonverbal predicates; b) negation of nonpredicative constituents; c) negative harmony affecting nouns/verbs in negative contexts; d) extension of harmony over two predications and e) its blocking at boundaries with subordinate clauses; f) negative harmony with omission of the implied negative word; g) word order, especially stylistic inversions in repetitions; h) existential/local negative with predicative NAAdj /yagi/ and the relationship between this and /wa='r/; i) identification and analysis of lexical verbs and nouns (including cycs.) with intrinsic "negative" sense; j) the relationship between conditionals and negatives.

First, negation of predicative NAAdj (see Table 15-1, below). Recall that a NAAdj like /guNgal/ 'big' can be used with nominal morphology, either by itself or in apposition to a coreferential element such as a noun (§8.4, §15.3), but can also be used (using the common noun, No) in specifically predicative form, with pronominal prefix (Chapter 9). An ex. of the latter is /guNgal/ 'it is was big' and variant for Future (or Past Potential) /guNgal/ 'it will be big', 'it would have been big'. Note that the choice between A and B prefix series (§8.2) enables predicative NAAdj to have at least a reduced expression of verbal inflectional categories. There is also the possibility of putting /guNgal/ in the Inchoative form with derivational suffix /-maga/ (§10.8), in which case we not only have pronominal prefixes (A vs. B) but also a full set of verbal inflectional suffixes after /-maga/. In general, simple predicative /guNgal/ 'it is was big' has stative sense, while fully verbalised Inchoative /guNgal-ma-ma/ 'it became big' indicates the process of changing state (though sometimes with perfective nuance).

In the ANA noun class, the distinction between simple predicative (unsuffixed) and Inchoative NAAdj is partially neutralised. As the table below shows, negative predicative NAAdj even in stative sense (middle column) must have the appropriate form of the Inchoative suffix (compare rightmost column), as well as /yagi/ or /wa='r/ (which are used as they verbs). The exception is the Present Negative, where postposition /-maga/ (§12.21) is obligatorily added to the NAAdj in place of a form of /-maga/; Thus, in the Present Negative, a formal distinction could be made between the true Inchoative type /wa='r/ an/guNgal-ma-ma/ 'it does not get big' and the

<table>
<thead>
<tr>
<th>Table 15-1</th>
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<tbody>
<tr>
<td><strong>Negation of Predicative NAAdj</strong></td>
</tr>
<tr>
<td><strong>positive</strong></td>
</tr>
<tr>
<td>NAAdj</td>
</tr>
<tr>
<td>Inchoative</td>
</tr>
<tr>
<td><strong>suffix form</strong></td>
</tr>
<tr>
<td><strong>Actual:</strong></td>
</tr>
<tr>
<td>Past</td>
</tr>
<tr>
<td>/-maga/</td>
</tr>
<tr>
<td><strong>Potential:</strong></td>
</tr>
<tr>
<td>Past</td>
</tr>
<tr>
<td>/-maga/</td>
</tr>
</tbody>
</table>

Note: pronominal prefix in exx. is of ANA noun class; NAAdj represents any adjectival noun.
and the regular (stative) type /wa:='ri/ plus noun (without postposition /-maga/), with a covert larger proposition implied by context, usually due to contrasting the negated noun with another noun in a parallel clause. Therefore, these exx. could all be analysed as involving omission of an implied verb (which would presumably have been syntactically within the scope of the negation if it [the verb] had occurred overtly). Consider these exx.:

(15.xliv) ana:-'-ni wa:='£i ana-wun=gu, yu wurangulyu, gada!

'(Meat ants are not few [in number]' (13.6.3)

Here the NAdj is /adhara/, with B form of N6ARA intransitive prefix /'ang/-

Consider now this ex. with nonadjectival (common) noun:

(15.xlv) ana:-'-ni wa:='£i an-in=n'arala-maga; this not deceptive words

'This is no lie' (i.e., 'no kidding') (41.4.4)

In a number of these instances, a verb (not in negative form) occurs near the negated noun and we are tempted to recognise a covert larger proposition implied by context, usually due to contrasting the negated noun with another noun in a parallel clause. Therefore, these exx. could all be analysed as involving omission of an implied verb (which would presumably have been syntactically within the scope of the negation if it [the verb] had occurred overtly). Consider these exx.:

(15.xlvi) wa:='£i ana-wun=gu, yu wurangulyu, gada!

They saw what Whatahmacallit? mainland

wa:='£i yaga; ana-qilji wurgulu not [§12.12] island mainland

'They saw Whatahmacallit?, the mainland--not an island, the mainland' (18.6.3-4)

(15.xlvii) wini=na-n Y 'wuru'=gu, yu wurangulyu, gada;

they did thus and place n. oops!

wa:='£i ana-wun=gu wurig wini=ga-bali-n not place n. they came out

'They did this[went] and [arrived at] Wurangulyu--oops, not Wurangulyu. They came out...

(20.2.3-4)

Other similar exx. are 47.23.4, 53.1.1, 71.16.4/5, 108.1.2, 116.12.2, 138.1.4 (focusing on compass-point NAdv). In the following ex. with NAdj, the fact that nominal rather than verbal inflection is used shows that this construction is not predicative:

(15.xlx) wini=jba:='j-bi-ni:::

they wove it small[one]

wa:='£i ana-wun=gu

not big[one]

They wove it, a small one--not a big one

(108.2.4)

In a number of these instances, a verb (not in negative form) occurs near the negated noun and we are tempted to recognise a specific type of constituent negation applying within a clause, schematically something like A in Figure 15-1, below. However, the exx. in Figure 15-1 are 524 §15.6 (15.xlxi - xlv)

\[
\text{Verb NP 1 (Verb) NP 2}
\]

\[
\text{Pred NP Arg}
\]

\[
\text{Pred Arg Neg NP Verb NP 1 (Verb) NP 2}
\]

Abbreviations: Pred[icate], Arg[ument].

Fig. 15-1; (15.xnlx-xlx). §15.6
because this type of constituent negation normally occurs in connection with a juxtaposed (positive) clause with another noun (NP) contrasting with the negated noun (NP₂). I believe that all of the exx. are consistent with the view that the verbs in question are not really within the same "clause" (here: logical proposition) as the negative word, and I favour an analysis (B in Figure 15-1) in which the negated noun is what is left of a fuller (negative) clause with the verb omitted by an optional pruning rule (similar to Capping but not restricted to any particular word- or phrase-type). The order of elements and clausal and predicative words (NP, NPs) confirms this interpretation. Any verb or noun (as well as demonstratives) within the scope of the negation, i.e., in a negative context, has its own morphology affected, as follows:

a) verbs: For Past Negative (Actual or Potential) must have Past₂ suffix and B prefix (i.e., have same form as Past Potential Positive); for Present Negative must have Nonpast suffix and B prefix (i.e., form also used as Future Positive Punctual); for Future Negative must have Nonpast₃ suffix (unique to this function) and A prefix; for the rare Evitative Negative, no change (via-a-vis Evidential Positive verb form).

b) nouns and demonstrative pronouns: inflectional noun-class prefix (NCl₃) is obligatorily present regardless of case and discourse status (focal, etc.); moreover, for nonhuman noun classes, NC₃ infixed must be the Continuous rather than Punctual form. The basic structure of verbs in negative contexts has already been presented in Chapter 8, which gives more information about the usage of the inflectional-suffix categories and the A and B pronominal prefix series. Concerning NC₃ infixed (with nouns and demonstratives), see §4.7-8.

It is possible, but very tricky, to speculate on specific motivations for these adjustments. In the case of verbs, the use of Past₂ could be viewed as aspectual neutralisation, in the sense that Past₂ forming the Punctual and Past the Continuous. However, going from Past (Actual) Positive to Past Negative also involves changing a prefix to B prefix, so we might want to explain these formal identity with Past Potential (i.e., a general irrealis) rather than emphasising the aspectual association. In the Present Negative, the use of what is elsewhere a Future Punctual verb form is quite bizarre—the use of Future form is compatible with our observation that Past Negative = Past Potential in form (the Future is the Potential category in the nonpast system), but the choice of the Punctual aspect form is anomalous. Finally, the Future Negative has a special inflectional form of its own, making it impossible to determine external aspectual associations. As for the NC₃ infixed prefixes with nouns and demonstratives, scans our terms "Punctual" and "Continuous" for the two (nonhuman) series, the distinction between them (as well as the principles for presence/absence of prefix) seems to depend on several interacting factors in nonnegative contexts, including case category and definiteness/givenness, so it is difficult to determine which such factor "motivates" the neutralisation in negative contexts.

Regardless of whether we can make sense out of the specific morphological associations between Positive and Negative inflected forms, the rule of negative harmony is very interesting and very important, for the simple reason that it does apply within a specific syntactic domain (its scope). We can therefore examine textual exx. to see if, for example, we can salvage the notion of "clause" by showing that the scope of a negative word coincides with our intuitive idea of this unit. With regard to the functions of the negative harmony system, we can show that without it, the present tense would have great difficulty interpreting discourse chunks including any Negative words. Frequently, the boundary of application of negative harmony does indeed correspond to a clause-like unit. As noted above in §15.5, such a unit (i.e., a sequence with a verb or other predicate and perhaps one or more NPs and particles) frequently does not correspond to an intonational unit, so the operation of negative harmony even to constituents separated from the negative word by a pause suggests (at first sight) that this syntactic rule gives us a valid operational definition (and empirical vindication) of the notion "clause." Some exx.:

(15.1) yagi ana:-'ji ng=bara=n=1-g
'with suit, I will sit' (Nonpast)
not ANAc-­here I will sit[Nonpast]
'I will not stay here' (28.13.4)

(15.11) ana:-'mu:-'a=yagi ni:nid=uma=1-g
ANA=-this way not you[Nonpast] ANAC-­this way not you[Nonpast]
'Don't come this way' (40.1.2)

(15.111) ana:-an=yinba j=wa:-'a ng=bara=ni=1-g
'Now we don't eat it' (119.8.3)

(15.1111) wa:-'1 ng=bara=n=1-g
ana-=-'a-ambar=g=gu=na=1-g
not more ANAc-­here it neared them[Past₃]
ana-n=1-ura
ANA-­life

The fire didn't get close to them' (120.3.3-4)

The use of Continuous ANAc prefix (ANA-­) is particularly striking with adverbial nouns (NAdv), as in all four of these exx., since in positive contexts NAdv are usually prefixless. Indeed, observing the behaviour of normally unfixed stative verbs when they occur
in negative contexts is the best test for distinguishing NAdv from genuinely uninflectable particles. Place names, which have important affinities to NAdv, are likewise usually unprefixed, but require Continuous prefix (almost always /a-/ ) in negative contexts, as in our earlier ex. (15.xlvii). In the case of negative harmony is less noticeable, since Continuous NCinf prefixes are common (though far from obligatory) with subject and object categories in positive utterances; negative harmony is, however, very noticeable with Instrumental case, which elsewhere usually has prefixless noun (§4.27), and with nonzero spatial cases like Locative (§4.25) and Ablative (§4.21) which elsewhere strongly favour the Punctual NCinf prefixes.

In the entire corpus, I have found no clearcut violations of the negative harmony rule. A possible instance is the rather broken and disorganised sequence at 168.6.3, where /bihasu anysha/ (language different) without NCinf prefixes seems to have been interposed between /wa='ri/ on the left and the verb /ambu:yanbli-n/ ('they spoke') (form showing negative agreement, i.e., B prefix and Past2 ending), but the interposed segment can be interpreted as a parenthetical insertion outside the (semantic) scope of the negative.

In many other exx., the apparent direct juxtaposition of a negative word and a noun or verb which does not show negative harmony is not a violation of the rule, rather a reflection of the fact that the noun or verb is not semantically within the scope of the negative. For ex., looking back at (15.xlviii), in the quoted segment the final verb /wini=£abali-n Y / ('they came out') (Past Punctual Positive form) is logically a distinct predication, and despite the absence of a pause between them it has nothing to do with the negated place name just before it. Similarly, in the exx. of 'isolation forms' of /wa='ri/ given earlier in this section, the fact that /wa='ri/ is an isolation form (i.e., having no adjoining overt words in its scope) is reflected by the absence of negative harmony in neighbouring clauses--if it were not for negative harmony, most such constructions would be chaotically ambiguous. Further exx. could easily be cited.

While the data given so far seem to vindicate the notion of "clause" as the syntactic unit which negative contexts are defined in terms of, further analysis shows this to be doubly true, while it seems to be true that negative words /wa='ri/ and /yagi/ have scopes which minimally contain (or imply) a predicable nucleus and any nouns functioning as arguments in it, negative harmony is not confined to such "clausal" units. Instead, negative harmony due to a single negative word often applies to two or more  neighbours (and their Adjuncts, if present). We exx. involve verbs (occasionally another predicative word) which, in context, designate actions or situations which are identical (as in simple verb repetitions), overlapping, or otherwise closely associated, so that this extended negative context is not totally arbitrary (open-ended). An example:

(15.lv)

wa='ri n'=a=naadugumbli:-n1 n'=a=n'=ama:-n
not I fished I did thus 'I didn't fish like that' (162.18.4)

Here the two verbs both have B prefix; compare positive counterpart /n'=a=ya=yama:-ni/ (Continuant) or /n'=a=ya=yama:-n/ (Punctual) 'I did thus' for the second verb. The other exx. involving /wa='ri/ plus two predicative nuclei are these, in schematic shorthand:

<table>
<thead>
<tr>
<th>clause</th>
<th>negative harmony</th>
<th>negative word</th>
<th>prefix</th>
<th>NCinf</th>
<th>Bprefix</th>
<th>occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>?6.3</td>
<td>later not she-thought[Eng. borrowing]</td>
<td>she-thought-about-it</td>
<td>B prefix</td>
<td>NCinf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.9.1</td>
<td>(not that they-did-thus they-wanted-11)</td>
<td>they-wanted-11</td>
<td>B prefix</td>
<td>NCinf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.11.2</td>
<td>(not again it was crooked)</td>
<td>it was crooked</td>
<td>B prefix</td>
<td>NCinf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.30.1</td>
<td>(not they-sit like-you[Pl])</td>
<td>like-you[Pl]</td>
<td>B prefix</td>
<td>NCinf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.33.1</td>
<td>(not they-cook-it, they-cut-it-up)</td>
<td>they-cut-it-up</td>
<td>B prefix</td>
<td>NCinf</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The last two verbs (though not the Relative clause, on which see below) show negative harmony (B prefix, etc.) and are thus within the scope of the initial negation. However, with regard to the first three words, /wa='ri/ can also be interpreted as the ANA subject form of predicative NAdj =/ar/ 'to be absent', not exist, with /wu=ar/ 'fight[noun] as an subject (i.e., 'so that there would be no fight'). When we get to /anbili:-=dharma-n/ we see that /wu=ar/ is (also) the Benefactive (indirect) object, and if we assure that the speaker planned the whole sequence we can take /wu=ar/ as simply a nominal argument of this verb.

The extended (multi-clause) negative domains also occur with the other negative word, /yagi/:

(15.lvi)

yagi an-u-guni
wu=rumi-£
ana-'=rijbila
not ANA-to there they will go ANA-[place n.]
[wu=wurdi[.]-'£]
they will be buried
'They will not [are not allowed to] go to Arijbila and be buried [there]' (54.1.1-2)

Similar exx. with /yagi/ are 71.14.4 [imperative] (not you-tell-him many[people] you-tell-them), 75.1.3 (not she-will-go that[woman] they[Pl]-will-see-each-other that son-in-law [1.e., she should not go near son-in-law so that they come into close visual contact], 77.2.1 (not that brother he-will-go there nearby older, the whole all), and 86.1.2 (now not that[Plg] they-will-name-her they-will-call-her ritual name).

(15.lvi - lvi) $§15.6$ $§29$
While reading the schematic glosses for the passages just cited, keep in mind that the negation ('not') has the underlined verbs within its scope in both the /wa='Ei/ and /yagi/ lists. In the main clause, it forgets, and associated the negation on the first verb, misinterpretation will result. Of course, this is another way of saying that the final changes expressing negative harmony serve as an index (sometimes a fairly long-distance one) which Nunggubuyu addressees need in order to decode such complex speech. Because a single negation may apply to sequences containing two (or even three) predicative nuclei, our earlier point about the functional significance of negative harmony (in connection with 'isolation' cases of /wa='Ei/) deserves reinforcement. When we know we have left the negative context behind, which Nunggubuyu addressees need in order to decode such complex verbs within its scope in both the first verb, misinterpretation will result.

However, while negative contexts may spread to include two or more predicates (if synonymous or otherwise closely associated), Full negative harmony is blocked by the boundary between an ordinary clause and a subordinated Clause (Relative, etc.), and at the boundary between the two parts of a conditional construction. We just saw, in (15.1v), a Relative clause in positive form, with a series pronoun prefix on the verb, in the middle of an encompassing negative context affecting the final two verbs. Regardless of whether we interpret the Relative as meaning 'they who speared each other' or as attached to the preceding noun 'fight' (i.e., 'fight in which they speared each other'), the syntactic point to be made is that a verb in a Relative clause is not affected by an 'upstairs' negation regardless of its surface location.

Further exx. of upstairs or main-clause negation not affecting the form of verbs/predicates in a Relative clause are 47.4.5/6 (but not they who had had-voices, but not they who could-it-up), with Relatives functioning as subjects in an implied upstairs predication negated by /wa='Ei/ and 166.22.2 (not they who-stayed here, they did not go). Negative harmony therefore does not apply across such boundaries, demonstratives and nouns (including most "adverbs") which occur in such exx., within the Relative clause do appear to require overt NC prefixes, and for nonhuman clauses the Continuous form. In 166.22.2, just cited, 'here' has Continuous prefix, as does a demonstrative 'that' referring to 'voice' in 47.4.5, also just cited. For partial negative harmony, see §16.4.

Of course, subordinated clauses may have their own internal negation, since they are basically like main clauses in form (with an additional suffix or particle). Internal negation in Relative clause is found in 47.6.2-3 (they who did not want each other's words, they did not go) with separate main-clause negation; possibly 47.10.2-3 (secret) words go to [make] trouble, to women who do not [should not] listen) if my construal is correct; also 54.5.1-2 (they who will have no law [traditional customs], they will not go) here, they did not go). Negative harmony therefore does not apply across such boundaries, demonstratives and nouns (including most "adverbs") which occur in such exx., within the Relative clause do appear to require overt NC prefixes, and for nonhuman clauses the Continuous form. In 166.22.2, just cited, 'here' has Continuous prefix, as does a demonstrative 'that' referring to 'voice' in 47.4.5, also just cited. For partial negative harmony, see §16.4.

Internal negation with /yagi/ and Persongrative suffix (as subordinator) added to verb is used to express [before verb], as in 47.19.3 (but not it-will-dawn-Persongrative, i.e., 'before it dawns'), see §16.6.

Turning now to word order, we repeat from §15.4, above, the basic principle that the negative word /wa='Ei/ or /yagi/ must precede the negated predicative nucleus (usually verb), the exceptions being cases of stylistic inversion in repetitions (see below). If the "clause" contains other constituents preceding the verb, the negative word may occur just before the verb (after the others), or it may occur earlier (often initially). A few representative exx.:

(15.1v11) /yagi ma-da-gu- / mirfum=i='i:/ not that[man] you[FDu] will eat him 'Don't you[FDu] eat that man.' (17.9.6)
has both verbs within its clause. The common postposition /-w 2 ugij/ 'still, only, nothing but' that in some cases the precise location of the negative word may reflecting a stylistic factor favouring slight variations in some hypothetical conditional postposition /-maji:/ can be added to /yagi-magi but does occur now and then, and seems to be the only grammatical 89.1.6, also 89.1.2 but subordinator /-waj/ is added to the following verb in 47.19.1 some flexibility in their location.

There is, however, an analytical question here. I am inclined to take exx. like (15.xxx) in which the second /wa:='ri/ (or /yagi/) is pronounced in an intonational group with the repeated verb as reflecting a stylistic factor favouring slight variations in some types of "clause" repetitions. However, it is possible to analyse these exx. in a different way--arguing that the first negative word has both verbs within its scope, and that the second negative word is a redundant, optional repetition of the negation.

In support of this, note the second /wa:='ri/ (added after a pause) closing the negative context initiated by the first /wa:='ri/ in this ex., which contains only one predicative nucleus:

For further exx. and slight variations on ordering see our earlier exx. of /yagi/ and /wa:='ri/ in this section, such as (15.xlix), (15.xlvi), (15.xlvi), and (15.1-1). It is possible that in some cases the precise location of the negative word may indicate a shade of focusing (the negation itself focusing mainly, say, on the immediately following word), but I cannot find any consistent patterning. I suspect that there are two conflicting principles at work, one favouring clause-initial position so that addressees immediately realise that a negative context is beginning, and another favouring immediate preverbal position (on the grounds that clause negation has a "naturally" close relationship to the predicative nucleus).

Both /yagi/ and /wa:='ri/ may be followed by postpositions or (other) subordinators whose semantic application is to the whole clause. The common postposition /-awu/ /-yagi/ is relatively, nothing but does not seem to do this (it would usually show up on the following verb), but Evitative /-magi/ is added to /yagi/ rather than to the (already Evitative) verb form in the Evitative Negative type

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Stylistic inversion was mentioned at the end of §15.4 with an ex. (15.xxx) showing repetition of a /wa:='ri/ Verb sequence with the order reversed. This particular pattern is not terribly common but does occur now and then, and seems to be the only grammatical pattern in which a negative word follows a predicative nucleus within its own scope.

Although 1st or 2nd person forms could be produced, such as isg /na:='ri/ (A) or /na:argi/ (B), these do not seem to be used; existential negation is logically anomalous with these pronominals, and locative negation would usually involve a negated verb like 'to sit' (/wa:='ri/). I have also not noted double negations like /wa:='ri na:='ri=maga/: 'It[NANA] is not absent', though it would not be difficult to produce such a form (for the framework see Table 5-1, above).

Some textual exx.,

(15.1xii) wa:='ri 1-argi

there[PDJ] saw him and he was absent

Thus, it seems he disappeared (from view).

(15.13-1-2)

(15.1xii) an=ga:='ri

It will be absent word[s]

'There must be no words'

(76.2.2)
The type (15.1xii) indicating disappearance from the view of another observer is common. This can also be expressed by an overtly verbalised Inchoative derivative (§10.8) /ya=gi-ma-/, but the Inchoative (attested 139.2.4) is less common than the simple form /wa:='ri/.

The other textual ex. of /ya=gi/ are 3MEg or NA /ni:='ri/ 13.15.2, 15.9.7, 43.8.3, 43.14.2, 65.6.3, 65.12.8, 117.4.5, 170.1.1 (NA); MANA /wa:='ri/ 118.4.6, 161.26.3; PL or WARA /wu:='ri/ 71.25.2; ANA /wa:='ri/ 7.10.5, 17.2.7, 28.10.7, 42.4.1, 42.5.2, 72.25.2, 93.1.4, 93.1.2, 117.4.7, 120.1.1.6, 161.26.3, 161.26.2 (with subordinator /-wa:='ri/).

Because the form /wa:='ri/ is also the basic clausal negative for Past/Modern Actual, there is the question whether to take the two cases of /wa:='ri/ as really identical. A lumping analysis would regard them as identical syntactically, while a splitting analysis would regard them as (synonymically) distinct. In the latter, the existential/locative /ya=gi/ is set up from the start as a predicative NAdj, while /wa:='ri/ (and /ya=gi/) are nonpredicative negative elements associated with clauses. The lumping analysis requires more thought, but is not entirely outlandish, and has the advantage that it might account for the form of /wa:='ri/, which is presumably not explained by a splitting analysis. The essentials of a possible lumping analysis ("underlying" representations plus a sketch of applicable rules) are given in Figure 15-2, below.

The idea would be that clausal negation is a predicative of nonexistence of lower proposition (Predicate plus Argument); the lower proposition is itself thus an Argument (Arg) in the higher predication. We represent /ya=gi/ as 'absent' (NAdj). In order for this analysis to work, the lower proposition must be treated as a NP of ANA class (regardless of the class[es] of NPs within the lower clause). It is also necessary to separate /ya=gi/ clausal.

\[ \text{FIGURE 15-2} \]

**Lumping Approach to Clausal and Existential Negatives**

- **a) clausal negation**
  - Pred Mood [Tense] Arg
  - NAdj Mood [Aspect] NP
  - absent Actual NP

- **b) existential/locative negation**
  - Pred Mood [Tense] Arg
  - NAdj Mood [Aspect] NP
  - absent NP

Rules: NP treated as ANA class; Mood and Tense-Aspect along with concord from NP go on Pred.

---

negation from that with /wa:='ri/, since /ya=gi/ has no predicative forms and has no NAdj properties. Therefore "Mood" is specified as Actual in (a) in the figure, while this category is open-ended in (b) and thus may be Actual or Potential (or, for that matter, Evitative, whose negation is also with /ya=gi/). (In the figure we take "Future" to be the Potential form in the Nonpast tense, so "Tense" is Past or Nonpast.)

It is up to readers to decide how reasonable it is to set up a different structural representation of /ya=gi/ negation (whatever this representation may be, not shown in the figure, might be). However, the use of ANA class concord for a predicative argument (after copy-raising) can be supported by other direct evidence. First, ANA (specifically, ANA-yu subclass) is the regular noun class for Abstractive nouns designating activities such as /wu-wanYja:='ri/ 'fight, fighting, war' (see §4.13, §4.33), as well as form most adverbial nouns (§4.3). ANA (ANA-yu subclass) is also the unmarked concord category of /ya=gi/.

Further evidence for the lumping analysis could consist of a demonstration that a single instance of /wa:='ri/ could have a scope containing both a "NP" whose existence/presence is denied and a distinct predicative nucleus. Looking back at (15.1v), and distinguishing the relative clause in /wu-wanYja:='ri/ 'right[ing]', note that one way to interpret it is with the initial /wu-wanYja:='ri/ (with Purposive subordinator) negating the existence of the noun /ana-wu:='ri/ 'right[ing]' and also the subsequent verbs ("they chase [enemies] for it[right], they do thus"). If so, we could represent the whole construction as a conjunction of (b) and (a), the latter itself complex with two verbs rather than one, from Figure 15-2, with a single negative NAdj ('absent') applying to the whole sequence. However, since /ana-wu:='ri/ also has a grammatical relation (Benefactive object) in the verb glossed 'chase', it is not clear in (15.1v) that /ana-wu:='ri/ is the subject of a separate existential predication. Consider, however, this example:

\[ (15.1xvi) \]

\[ /wu-wanYja:='ri/ \]

Here we start with /ya=gi/ as existential negator, with cpl. initial (Table 14-1, bottom right) specifying the subject as some kind of food (the demonstrative 'that' also refers to food). This is followed by a transitive verb with "food" as direct object, with negative sense and showing negative harmony (Present Negative form with B prefix and Nonpast suffix). Although the form of /wu-wanYja:='ri/ seems to have been determined in the initial existential predication (the cpl. initial would not have been used in a simple clausal negation), it seems to carry its negative force...
over into the verbal clause. An advocate of the lumping analysis could take this to show that /wa:='ri:/ (or a cpd. thereof) can jointly dominate a NP whose existence it denies, and a clause which it negates. An advocate of the splitting analysis would emphasize that the form of /wa:='ri:/ (presence of cpd. initial, choice of noun class, A vs. B prefix form) depends on whether it is functioning as (predicative) existential/locative negation or (nonpredicative) clausal negation, so that /wa:='ri:/ in (15.lxv) must have originated specifically within the initial existential clause, and would develop a possibly ad hoc interpretation of the absence of a second negative word in that example. I see some merit in both approaches, and feel that both have some psychological reality to Nunggubuyu.

Another indication that the existential/locative negation and clausal negation are not totally distinct structures is the virtual interchangeability of forms with predicative /=ara:/ and of sequences with /wa:='ri:/ and a negated verb, usually 'to sit' (/=bura-'/), with essentially existential/locative force:

(15.lxv)  n1='g1  ana:-'ji
"he is absent"  ANA- here
'He is not here'

(15.lxvi)  wa:='g1  ana:='bura-n'=a=n2  ana:-'ji
not he sits
'He is not (sitting/living) here'

Although in (15.lxv) the predicative NAdj /=ara:/ takes concord from the (otherwise covert) MSg subject, while this does not happen in (15.lxvi), the meaning is not very different, since the literal meaning 'sit' is downplayed in most uses of the type (15.lxvi).

It may be that the first pattern is favoured by a) a temporary absence and/or b) nonhuman status, the second by c) a more permanent or enduring absence and/or d) human status (especially for 1st/2nd person pronoun), but there is a clear functional overlap. Indeed, we find textual exx. where an existential/locative negation is begun with /wa:='ri:/ and then self-repaired by switching to an appropriate form of /=ara/ with different prefix (117.4.7/8 with NC change, 166.15.1 with NC change and cpd. initial, 71.25.2 with NC change, perhaps 59.4.1 with switch from A to B prefix, 120.1.7 with added cpd. initial—for the addition of a cpd. initial in a repetition see also §14.8).

There are some other combinations involving /=ara/ of an essentially derivational nature which we will just mention here: in existential/locative sense only it is possible to add a body-part cpd. initial indicating an absent body part or trace (/=mum-=ara/ 'lacking hair, bald'; /=mun-=ara/ 'having one's foot[print] absent' MT 21predj; /=hun-=ara/ 'lacking paper [in voice]' 67.2.2. cf. Causative of this 66.3.4./ /=w1,an'=a=/ 'food' to be absent' is sometimes used without specific reference to food, as in 97.8.1 and 166.15.1[rope]; redupl. /=ara/ is used in some kinship contexts (99.1.xv) and may underlie /=niga=ara/ 'real manager' [SIBaSo]; /=ara/ as cpd. final means 'bad, unsuccessful' with some lexical agentive NAdj (§14.21). See also dictionary s.v. /=ara/.

We now turn to some possible syntactic affinities between obviously negative constructions and others with a possible covert "negative" nature. We will use negative harmony, identified above as indexing the presence of a negative element, as a way of testing for cryptotypic "negation" in other constructions.

First, we observe that Nunggubuyu, like most languages, has a number of verbs (and NAdj which can function as predicates) which have (arguably) a negative component in their semantic representation. Actually, it is difficult to determine how far we should push this analysis—in cases of polar antonyms like 'long'/short' and 'good'/bad', should we take one pole as covertly positive and the other as covertly negative ('not long' = 'short'?) For present purposes we will confine our attention to some of the more obvious exx., shown in Table 15-2, below.

To begin with, the stems shown (all of which, including the two NAdj at the beginning, are used chiefly if not exclusively as predicative nuclei) do not themselves show any trace of negative harmony—the verbs take regular tense-aspect inflection, the NAdj take regular (predictive) affixation including A form of intrans. prefixes, and all of them can themselves be overtly negated in the same way as other predicative nuclei.

The textual exx. of /ambadh1/ and the better-attested /mala:aradi/ are at least consistent with the view that clause-mate nouns take Continuous (=aEa:/) prefixes, the other marker of negative harmony. However, this is hard to interpret since it is usually also true of the positive antonym /marbuy/ 'knowing', and therefore could simply be because the thing known or not known is clearly presupposed (definite), which itself is a sufficient reason for using Continuous prefix.

In the case of /=awa=ba:/ we do not have enough textual exx. to tell what is going on, but with /=ari/ 'to not see, to overlook, to miss [visually]', we may have counterexx.: (15.lxvii)  a:-'y-wala arwar yuwa:-gu  m=a:='ba:/
"from nest above there[Dist] he did not see her"
'He did not see her there up in the nest!' (20.6.1, cf. similar ex. TNT 15)

<table>
<thead>
<tr>
<th>Lexicalised Negatives</th>
<th>positive counterpart (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ambadh1 &quot;unaware&quot;</td>
<td>marbuy 'knowing'</td>
</tr>
</tbody>
</table>
| mala:aradi "ignorant" | }
| =ari/ 'to not see' | =a-/ "to see" |
| =awa=ba/ 'to dislike' | =ni:='ba:/ "to love, like" |

536

537
Here the three preceding words all lack Continuous NC infl prefixes; /na-wa/ and /yuwa-gi/ are prefixless, and /a:-'y-wala/ has Punctual form of NC infl prefix (unless the form is really prefixless /a:-y-wala/, which would be homophonous with the Punctual). However, exx. of this type are again hard to analyse, since it could be argued that (15.lxvii) is really two distinct clauses, one meaning '[she was] up there in the nest' and the other meaning 'he did not see her', so that negative harmony would not apply away. (Indeed, following the segment quoted as (15.lxvii) there is a verb 'she was perched'.)

If we reanalyse (15.lxvii) in this way so that this type is not recognised as a counterex., we can say that our evidence supports at least a predominant usage of Continuous NC infl prefix with nouns clearly within the scope of the predicative nuclei in Table 15-2, though this pattern may reflect the fact that these nuclei rarely or never take nouns in the nonsens case categories which otherwise favour Punctual prefix or lack of prefix, and the fact that the nouns which do occur with them tend to be already definite in context. Favouring Continuous prefix independently of the negative component in the sense of the predication.

In roughly the same way, the protasis of a hypothetical (future) conditional, and both protasis and apodosis ('if... then...') of a counterfactual conditional, have a kind of irrealis meaning built into them (cf. English some/any in 'I had some money', 'I did not have any money', and 'if I had some money', 'I did not have any money', though some is also possible in the last ex.).

We discuss conditionals in detail in §16.7. Without presenting the data here, we can say that these conditional contexts display a clear preference for usage of Continuous NC infl prefix even in positive cases. There is thus at least an approximate syntactic affinity between these conditionals and negatives. Moreover, in the counterfactual conditionals the verbs in both clauses are in the Past Potential form (5 pronominal prefix, Past infl inflectional suffix), which is also the form used in the Past Negative (Actual and Potential) along with /wa:='gi/. Postposition /-maga/ ([§12.21] is also often added to counterfactual conditional clauses; we have seen this as a negative marker (with NAdj.) in Table 15-1, above.

In addition to the direct effects of negative harmony, such as requirement of Continuous NC infl prefix for nouns and demonstrative pronouns, there may also be some indirect effects involving change of word class (vis-à-vis positive counterpart). This applies both to demonstrative demonstrative pronouns (§7.6) and certain NAdj which also have NAdv usages (§6.2-3). In both cases, the negative context triggers shift from a form (predicative DemPro, predicative NAdj) which shows pronominal prefix indexing a particular referent, to a NAdv or DemAdv (Locative) form with nonreferential ANA - prefix (ANA being the regular noun class of adverbs). Instead of treating this as a syntactic transformation, it is probably preferable to regard it as a semantically motivated alternative structure.

In the case of predicative DemPro, a form like /ya:-gi/ 'he is here' is really just a predicative usage of the demonstrative

'his[Msg]', so the English gloss 'he is here' with copula and a demonstrative adverb is syntactically misleading. To say 'he is not here' it does not suffice to add a negative element to /ya:-gi/, since this would mean '[he is] not this' or the like, which would be illogical since 'this' would have no valid referent. Therefore, the negative counterpart to /ya:-gi/ 'he is here' has to be a different construction with predicative nucleus either /=ang/ 'be absent' or some verb like 'to sit' in basically existential usage, with Locative DemAdv (not DemPro) added to specify the zone in which absence is predicated:

(15.lxvii) /ya:-gi/ 'he is not here' ANA - here

(15.lxix) /wa:='gi/ ANA - here

If the DemPro like /ya:-gi/ 'he is here' is part of the close-knit double-predicate construction (§15.5), so that it does not function as a totally independent predication, the negation of the other predication nucleus will permit direct replacement of /ya:-gi/ by /ana:-'ji/, 'here' without the additional negated predicative nucleus shown in the two exx. above. Thus (15.lxix) has as its negated equivalent (15.lxxi):

(15.lxxi) /ni=ngulungulug/ ANA - here

As for the ambiguous NAdj/NAdv stems, in §4.2 we gave some exx. showing how /nu=lamulampug/ 'fast' often occurs in a kind of double-predicate construction with another verb (say, of motion), hence 'he is fast he runs' meaning 'he runs fast' and so forth. We also showed that when such expressions are negated, normally the verb is directly negated and the NAdj 'fast' is converted into an NAdv with ANA - prefix (not agreeing with actor). See (4.1-v, 15xxi-xl). However, the treatment of such NAdj/NAdv stems is a little more tricky than was indicated in §4.2. To begin with, it is possible to directly negate predicative NAdj /ni=ulululug/ 'he is fast' if the speaker wishes to specifically negate this predication; hence /wa:='gi/ ANA - here

(15.lxxii) /ni=ngulungulug/ ANA - here

(15.lxxiii) /nu=lamulampug/ ANA - here

Since 'this' would have no valid referent. Therefore,
15.7 Conjunction (of nouns, etc.)

The simplest type of nominal conjunction is of the type /X mari Y/ with the two nouns X and Y linked by the conjunctive particle /mari/ and 'and' (§12.4). This construction is moderately common in the texts, normally either with no pauses or with a pause between X and /mari/. Some exx. are 6.1.1 ('senu and whatahancallit, trolga'); 10.2.1 ('[a] son and [his] father'); 14.6.2 ('silver gull and peacant') and repetitions later in same text; 28.6.1 ('her father and her mother') repeated 28.7.3, 28.11.4/8; 29.7.2 ('n. of one dog' and whatahancallit[other dog]); 29.12.2 ('seaweed and cuttlefish shells [two types of beach debris]', 31.1.1 ('moon and native cat', two protagonists in myth) repeated with synonym substitutions 31.1.2, 31.2.1; 42.1.3 ('green turtle and dugong', two myth protagonists) 165.7.1 ('we chopped them, /min'/tree', and /balara/ [tree]); there are a number of others as well.

Particle /mari/ is basically a local conjunction linking one noun or other word (Y) to usually a single preceding word (X). There are some textual exx. which show iterative use of /mari/ in chains (X mari Y mari Z), but these are generally not as fluent strings, rather as hesitant "afterthought" increments:

(15.lxxxvi)

\[
\text{mari } A \text{ anwa-ngaga-nu } B, \text{ mari C, and he will hold } hja \text{ and mari mij-gulmur sulum-n-argi, mari mjrjibun-n ung and young nym some others and one-HumSg n'amFlharga-nu D.}
\]

I will send him

...and he will have A with him [and] B, and C, and some other boys, and I will send one boy D' (164.1.1-4; A to D are names)

§15.6, §15.7 (15.lxxxi - lxxvi)

It is possible to use /mari/ in conjoining nouns which occur in nonzero case forms such as Relative /-yi'n-un/ and Allative-Adverb ['story] of dugong and turtle' (61.2.1); /ni=ya-nggi yu:-guni/ man/jawara-yi'n-un/ 'of A and B's names' (63.1.2); and /a-mari-guy, [containers]/ (103.6.3).

As these exx. show, there is no formal difference between a) a nominal conjunction (conjoined NP) to which a single case marker is added, and b) conjunction of two nouns both of which are (independently) already marked by the same case. Thus, ['story] of dugong and turtle' and 'of A and B' in the exx. above can reasonably be considered semantically to be Relative case forms of unit NP while happens to consist of a conjunction, i.e., [Nt Plus Nt-Case], but the surface forms end up being exactly parallel. This suggests that despite the overt /mari/ conjunction, the conjoined nouns have autonomous surface-structure status, as already suggested by the toleration of pauses between.

While we have already seen that /X mari Y/ is a reasonably common sequence, /mari/ is by no means always present in noun conjunctions. Indeed, in (15.lxxxvi), bottom of preceding page, the name symbolised here as /B/ does not have /mari/ in front of it, though it is semantically conjoined to the earlier noun /A/. Note that although /B/ is pronounced with no clear pause (comma) here, it is a kind of "afterthought" since the preceding verb 'he will hold him' has a single object marker referring exclusively to the earlier name /A/. Another ex. with /mari/ absent:

(15.lxxxvi) mari ana-saltwater ana-ihan-da-waj, wara-mung and [by] sea by coastal jungle bee sp. 1 wara-garamun'anun' and mari -wi-raj bee sp. 2 they sit pl.n. X pl.n. Y...and around the coast and jungle, honey bee are beyond there[Anaph] in pl.n. Y

Here we disregard the initial /mari/ which links this segment to what precedes it. I do not take 'sea' and 'jungle' to be really appositional here, rather as semantically overlapping and hence conjoined here, rather as semantically overlapping and hence appositional in this context. However, the two names of bee spp. are conjoined semantically, and the two place names are also conjoined, but /mari/ is not found here. There are many other textual passages of this type, and indeed /mari/ is commonly omitted in lists of (conjoined) nouns which are pronounced fluently as units (with a special list intonation, §17.4). In particular, we observe that whereas English and can indicate the termination of an extended list (X, Y, and Z), Nunggubuyu /mari/ has no such function. (For a demonstrative form often used to sum up and thus terminate a list of nouns, see /da-ni=na-yi'n-gala-waj/ §7.9.)

(15.lxxxvi) §15.7
The relative surface autonomy of conjoined nouns from each other is also manifested in the typical pattern for semantic combinations of a third person expression (usually a noun, demonstrative pronoun, etc.) plus a 1st or 2nd person pronoun. The point is that instead of listing the 1st/2nd person pronoun as one of the conjuncts ('X and me', 'X and you'), the procedure is to pronounce the third person expression and then to use a non-singular 1st/2nd person pronoun. This pronoun form may be just the subject- or object-markers in the pronominal prefix on the verb (or other predicative nucleus), or it may be an independent pronoun pronounced after the third person expression, or both:

(15.lxxi11) nuruwa-n³
maigu nu-ru
we[ExPl] killed it [name] we[ExPl]
'M and us killed it[buffalo]' (163.7.7)

(15.lxxi4) nuruwa-n³
gege-ge-ge, Roger ni-ni
we[ExPl] went children
[18MDu] mari yiruviyuljdi nu-ru
nu-ge gu-boda-na³, and [name]
we[ExPl] we walked around
'Ve went [with] the children. Roger and I, and Yiruviyuljdi, the three of us went walking.'
(161.18.1-2)

In the last ex., note that the pronominal summation is incremental--first the 18MDu pronoun indicating speaker and one other person (Roger), then 18ExPl pronoun (requiring at least three referents) indicating further inclusion of Yiruviyuljdi. Further textual exx. of this general type are 163.10.4 (with 3Pl as the conjoined category instead of 1st or 2nd plural, since speaker and addressee are not included, but of same conjunction pattern), 163.11.5-6 (18MDu then 18ExPl), 163.19.2 (18MDu marked only in verb, not by independent pronoun), 164.2.1-2 (two names plus speaker giving 18ExPl, with no explicit dual form on the way). A slightly different variation involving similar pronominal prefix pattern, but with Emphatic 18g pronoun rather than (summative) nonsingular pronominal pronoun among the other nouns, is 163.1.1-3.

Focusing for the moment not on the type of concord in the verb but just on the independent nouns and pronouns as in the two preceding exx. (15.lxxvi11 and 15.lxxixiiii), note that these sequences of (singular) noun plus nonsingular (summative) pronoun have a basically appositional character. Instead of having a structure of the type (X plus Y), we have a structure of the type [X Pron.. in which the second element (a personal pronoun) contains the first element plus at least one other referent. Therefore /mar/'and' is inappropriate between X and Pron..

Apposition, it would seem, is a fundamental type of structure in Nunggubuyu. Our analysis of (nonconjoined) 'NPs' in §15.2 suggested that coreferential multi-word sequences of an NP-like nature could be analyzed as appositional rather than forming surface phrases. We have also noted that Proximate and Immediate demonstrative pronouns are often juxtaposed in an appositional way to 1st and 2nd person pronouns (or pronominal affixes), respectively (§7.27). We will have more to say about apposition in discussing possession (§15.8).

Of course, in addition to analyzing the form of the conjoined independent elements themselves, we must specify rules for pronominal concord, especially for subject- and object-markers in the verbal pronominal prefix when the subject or object is a conjunction of nouns/pronouns. The conjunctive concord rules are:

a) pronominal person rule is that first-singular includes speaker but not addressee, first inclusive includes speaker and addressee, second person includes addressee but not speaker, third person excludes speaker and addressee;

b) human FG plural plus other FG or one nonhuman is FDu;

c) human FSg plus other FSg or one nonhuman is FDu;

d) total of three or more referents including at least one human FS (except for optional 1IndTr and 1ImPr categories);

e) two nonhumans of same noun class are treated as a noun of the same noun class (no pluralization);

f) two or more nonhumans of different noun class inconsistently but often may like a noun of ANA class, especially ANAg.

The terms "human" and "nonhuman" in these rules are subject to the minor skewing phenomena described in §6.10-13, so that dogs and "personified" animals in myths may be "human," while babies and white people (collective) may be "nonhuman" for grammatical purposes.

An ex. of MSg plus FSG having MDu concord is 28.11.4 ('her father and her mother [MDu]-retumed'), exemplifying rule (b), in 3.7.2 Emu (treated as 3FSg) and a small boy are treated as 3FDu, which may seem to be a violation but is consistent with the fact that a baby or small child may be treated as an ANA class noun, as in the immediately preceding passage 3.6.4/5. Conjunction of human and nonhuman referents as subjects or objects of a proposition is almost nonexistent in practise, though further exx. of rules (b) and (c) were obtained in (somewhat forced) elicitation, mainly with higher animate nonhuman as in 'he/she and the kangaroo/shark/crocodile fought'. In such interactive (mainly Relative) combinations there is no clear syntactic alternative to such a conjunction, but in such contexts as 'I saw him/her and the kangaroo/shark/crocodile', the normal Nunggubuyu pattern is to have separate predications ('I saw him/her, and I saw the kangaroo/shark/crocodile'). Such repetitions with different noun/pronoun for subject or object are very common in Nunggubuyu, as in 166.4.3 to 166.6.1, where several nouns/pronouns successively occupy subject position in the context 'cut down [tree for] canoe'. (A better feeling for the Nunggubuyu toleration of repetitions, with or without one referent changed, can be gotten from the text analysis in Chapter 17.)

An ex. of rule (f) above is /nu-ru-·ra-ma-n³/ we[ExPl] ate them 93.2.3 and, in the same passage, /nu-ru-·ra-wa-da-n³/ we killed them 93.1.5 and 93.2.3. The pronominal prefix is 18ExPl ANAg- /nu-ru-/ not itself marking plurality of object, though Multiple derivational prefix //·a-ra-// ($10.4, not covered by the concord rules above) indicates object plurality here. The verbs, refer to the killing and eating of a range of animals who are...
enumerated one by one in the passage with the verbs repeated now and then. The individual nouns are ‘goanna lizard’ (WARA), ‘blue-tongued lizard’ (WARA), ‘other animals’ (WARA), ‘tree goanna’ (NARA), ‘yabby’ (NARA), ‘‘black-headed python’ (NARA), and ‘mouse’ (WARA). The passage also includes some verbs (‘we ate it’, ‘we killed it’) lacking the Multiple prefix (hence not applying to the entire series) and with object marking showing that a particular animal in focused on; this applies naturally at the beginning when ‘goanna lizard’ (WARA) is the only animal thus far introduced, but also applies at the end when the concluding /wara=mun=ni/ ‘we ate it’ refers only to ‘mouse’.

A similar example is §5.10.6-10, where ANA is again the collectivising concord noun-class for a conjoined series of nouns, though in this instance most of the individual nouns are also ANA. However, in §9.8.1 we have two plants (with edible roots), one ANA and the other WARA, with ANA as the concord category in /wuru-wara=mun=ni/ ‘they ate them [both]’; perhaps this verb is also intended to subsume other plant names given shortly before (mostly WARA and ANA classes).

Preference for ANA as the “unmarked” category among nonhumans can also be seen in other facts presented elsewhere in this grammar. First, ANA is the noun class for highly general (life-form) flora and fauna categories like ‘fish’, ‘terrestrial game animals’, and ‘tree’ (fauna terms being ANA, ‘tree’ and ‘grass’ ANA), and ANA is the preferred singular class (ANA) for abstract or vague references to activities (§4.13, §4.33). The use of ANA with most adverbial nouns is also perhaps relevant (§6.3, cf. §6.5 on place names). In addition, ANA is the unmarked concord category for indefinite /yan=ni/ ‘what’ (§13.3). Furthermore, the form /da-ni-la-yan=ni=/ (§7.9), formally a predicative demonstrative pronoun (Immediate root, ANA class, plus several suffixes), is the most common list-summative form and is commonly used to wrap up lists of nouns of various classes (though it is possible to use a counterpart with a specific, marked noun class if the items in the list are all or predominantly of some other noun class).

Further from this, rule (f) can be added, both from tests and elicited test cases, I should add that this construction seems to strike Nunggubuyu speakers as slightly anomalous. In some of the passages just discussed, in addition to the more sweeping summarising expressions (like ‘we ate them’ with explicit Multiple prefix, i.e., ‘we ate them all’), we have observed that parallel verbs with individual nouns as objects also occur periodically, and sometimes repetitively passages with several such verbs (each with a different object) are used instead of the sweeping ones.

Some points made in this section so far can be reinforced by considering certain cases of Reciprocal verbs (since, by definition, the morphological subject must be conjunctive). First, our point just made about awkwardness felt toward the (nevertheless frequently attested) use of ANA (usually ANA) for conjunctions of nouns can be further exemplified by pointing to exx. involving /i=limara-/ ‘to chase, follow’. In those textual passages where a real chase is going on with both participants running around wildly (as opposed to one person tracking another by following footsteps), the usual verb form is /-anYji=limara-/ ‘[X] to chase [Y]’ (transitive, exx. in TNT 1 and 24), or even more often /-anYji=limara-/ ‘[X or Y] to be involved in a chase’ (intrans., exx. §7.4, §7.6, §8.1, §28, §27). The affixes are Comitative /-anYji-/, $0.10.3, and in the second form Comitative /-anYji-/>$0.10.6, though the term can be computed from the meaning of the components. In particular, the singular (nonplural) subject, so that if X is chasing Y we may have subject, although the overall passages are symmetrical in the sense that X and Y occur in parallel linguistic forms, so that the chase is presented as an activity involving both protagonists (emphasising their distinct roles as chaser and chased, respectively), there seems to be an avoidance of forms where both are merged into a single pronominal (as subject of a true reciprocal verb).

We conclude by pointing out that the kind of structure exemplified above as (15.1xxxviii-lxxxv), with a noun juxtaposed in a semi-appositional way to a nonsingular pronoun which subsumes its referent, is parallel in reciprocal clauses. The best ex. in NMT is 161.24.1 (‘he now Dick Harris was the one we see each other’), i.e., ‘We [Nunggubuyu] (‘he Wuraju-Dual they [MON][quarreled with each other’), i.e. anybody’s father [and another man, not mentioned] got into a quarrel in neocolonies (§6.4) as a way to avoid mention of the actual name of a deceased person.

There is not much to say about conjunction of personal pronouns or demonstratives (for verbs, or rather clauses, see §16.1). There exists an English you and I are not commonly used in Nunggubuyu, though they are not really ungrammatical; the regular practice is to use the appropriate nonsingular pronoun (and in the plural form, as the inclusive/exclusive distinction, make it unnecessary in most cases to spell out the singular components in the English fashion). As seen above, singular pronouns are not usually conflated to nouns or other third person referential expressions either; the basic pattern is to pronounce the noun, then use a pronoun form which subsumes its referent. Nonpredicative demonstrative pronouns like /nu-‘ba-gi-yan=ni=/ that one [HSG, Anaph], or adverbs, which are morphologically nominal (NAG) anyway.

Attention is called to the usage of /-yan=ni/ with (singular) noun to indicate conjunction with an unspecified group of persons (§4.16, also Chapter 5), and to the existence of Dyadic kin terms (§5.6) which refer to pairs or larger groups of kindpersons related to each other in a particular way.

15.8 Possession

Possession is not a tight, unitary morphosyntactic phenomenon in this language. Therefore the present section is merely a convenient rubric under which we mention a variety of formations, most of which
are treated more thoroughly elsewhere in the volume. We will mention here the primary type with Relative /-yin'um/' (or /-n' in'un/' with personal pronoun), whole-to-part noun-class harmony, expression of kin-term propositus, relevant compounding/derivation mechanisms, and predicative genitives, with particular reference to the syntactic questions of apposition and case-spreading.

In §4.30 we present a general discussion of the meanings and uses of case suffix /-yin'un/, which we label "Relative" to make certain it is not misunderstood to be a simple genitive marker. Some of its uses are not genitive (in any usual sense), including the analysis of NP structure, we may consider the possibility that the coreferential elements constituting a (notional) "NP" (§15.2), are typically separated by pause or intonational boundary, and often enough by intervening constituents. In the light of our earlier analysis of NP structure, we may consider the possibility that the head noun and Relative noun/pronoun may be formally appositional, coreferential elements. Of course, the Relative noun/pronoun is coreferential only in the sense that the combination Stem-Relative function as a descriptive modifier to the head noun; it is not the referent of the inner stem of the Relative noun/pronoun which is coreferential. Indeed, there is no concord from head noun to Relative noun/pronoun; the latter has its own noun-class marking and so forth.

Our understanding of head/Relative combinations may be assisted by considering what happens when the head noun is in a nonzero case category (because of its grammatical role within the larger "clause"). In this situation, we have a case-spreading rule by which the case suffix of the head noun may also show up on the head noun/pronoun with the Relative suffix /-yin'un/ deleted to make room for it. This spreading (or agreement) rule is optional but rather common. In addition, sometimes the nonzero case suffix shows up only on the "Relative" noun/pronoun and is omitted on the head noun; this can happen when the "Relative" pronoun is immediately adjacent to the head noun. So we have three surface possibilities: a) nonzero case suffix on both nouns, b) on just head noun, or c) on just "Relative" noun/pronoun.

In such constructions, when the nonzero case suffix is omitted from the noun and sometimes when it is omitted from the (genitive) pronoun, there is an indirect index thereof. In the final ex., above, use of /a-/ (Punctual) rather than zero or /ana-/ (Continuous) NCinfl prefix of ANA class suggests the (covert) presence of one of the nonzero case suffixes, since Punctual prefixes are very common with these cases (though Continuous may occur). Similarly, in the penultimate ex. above, the missing Allative case suffix on the initial pronoun is partially indexed by the use of the Oblique stem of the pronoun /n'aya-wi/, cf. /n'aya-wi-wuy/ with suffix in the final ex. The regular Nominal form is /n'aya/ and the Relative (possessive) form is /n'aya-wi-n'un/.

An exception to the tendency to use stem forms implying a covert nonzero case suffix is (15.lxxx), where the Relative (possessive) /n'aya-wi-wuy/ rather than unsuffixed Oblique stem /n'aya- wuy/ is found.

Especially in view of the fact that the nonzero case suffix sometimes shows up just on the pronoun and not on the head noun, it may be advisable to modify our analysis, and instead of speaking of case-spreading (i.e., case agreement from head noun to modifying possessive element) we might speak of case-marking applying to such combinations in the same way they do to prototypical instances of apposition, say two coreferential nouns or a noun and coreferential demonstrative pronoun (§15.2). That is, in principle both the Relative (possessive) pronoun or noun, and the head noun, are assigned the same nonzero case in these exx., but individually one or the other word may omit the suffix (usually, though, taking an Oblique form).

A number of further analytical problems are posed by the relationship between case-spreading in simple possessive expressions of these types, and case-spreading in subordinated clauses in which the subordinate is a case suffix; see §15.4.

It is also worth mentioning our earlier discussion (§6.6) of the interpretation of case-marked pronoun forms like /n'aya-wi-wuy/ (15g-Allative, with Oblique stem marker /-wi/), in contexts where no possessed head noun occurs. While in some instances a gloss like 'to me' is good, often the sense is really 'to my [camp]' or the like, and this pattern is most clear with Locative /-ruj/ as the case suffix. It seems, then, that often there is a covert head noun which is not realised on the surface. This is consistent with other facts about "NP" (§15.2); for example, the possibility of expressing a "NP" by just a demonstrative, or just a modifying NAdj, with the implied nuclear noun omitted.

Whole-to-part noun-class harmony is expressed by attaching a Number prefix to the noun root denoting the part ('belly', 'side', etc.), creating a derived noun stem with noun class based on that of the

(15.lxxxvii) n'aya-wi yu:-guni Cape Barrow-wuy me[Oblique] to there -Allative 'to my [country] Cape Barrow' (47.21.1)

(15.lxxxviii) n'aya-wi-wuy a-:hal me -Allative country 'to my country' (41.5.5)

In such constructions, when the nonzero case suffix is omitted from the noun and sometimes when it is omitted from the (genitive) pronoun, there is an indirect index thereof. In the final ex., above, use of /a-/ (Punctual) rather than zero or /ana-/ (Continuous) NCinfl prefix of ANA class suggests the (covert) presence of one of the nonzero case suffixes, since Punctual prefixes are very common with these cases (though Continuous may occur). Similarly, in the penultimate ex. above, the missing Allative case suffix on the initial pronoun is partially indexed by the use of the Oblique stem of the pronoun /n'aya-wi/, cf. /n'aya-wi-wuy/ with suffix in the final ex. The regular Nominal form is /n'aya/ and the Relative (possessive) form is /n'aya-wi-n'un/.

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(15.lxxxviii) n'aya-wi-wuy a-:hal me -Allative country 'to my country' (41.5.5)
whole. This pattern (§4.9) is particularly common when the whole is a plant or manufactured article, but extends in a lexically idiosyncratic way to some animal and even human contexts (as with /muwa/= 'name').

The apposition structure for head noun and Relative noun/pronoun sketched above can also be justified for the combination of the whole noun and the part noun:

(15.1xxxiv) binan

\[\text{ mana-ma-muwa=} \text{ na-da=mu-em=gun on wattle tree MANA-MANA}_\text{de}X \text{name that 'That [gun] is /binan', its name} \] (123.4-4-5)

(15.1xxxv) ni-gubulu-wuglj win\text{i=ni, na-yaj} 

\[\text{ NADer=body-only they get it t\text{ree sp. 'They just get the core of /yaj=tree/'} \] (121.1.7)

Here /binan/ is a MANA class noun (though without prefix here), triggering MANA derivational form of /muwa/= 'name'. In the next ex., /yaj/ is a NA class noun and induces harmony in the term for 'body' (root /gubulu/). Similarly, the question asked to find out addressee's name is this:

(15.1xxxvi) nagan

\[\text{ yar}\_\text{1-n\text{=muwa}-jung}_\text{y} \text{ who? MSG-MSG}_\text{de}X \text{name-Hum} \
\text{ 'You who are, named?'} \]

Usually the appositional relationship between whole and part terms is not dramatised (except with /muwa/=), since usually a whole term is presented earlier in the discourse than any part terms related to it; in (15.1xxxv) /yaj/ had been mentioned earlier and the noun was repeated in the segment shown above.

Relative forms with /-yin\text{=mu}/ are not normally used for the whole term in this construction. However, if the part term happens not to show whole-to-part harmony and there is a juxtaposed whole term, the latter may take /-yin\text{=mu}/ (§4.30).

Of course, it is possible to conjoin two distinct part terms relating to the same whole. In this event, the two part terms are not appositional to each other, though they share the same noun class by (separate applications of) whole-to-part harmony. They are conjoined, and may be separated by /mar/ 'and', as in 121.1.6 and 127.3.3. However, they sometimes are linked by /na=/ (§12.4), which is otherwise not common in nominal conjunction; it seems to emphasise here the trajectory from one part to another, as in 139.4.3 and 156.1.3/4.

Kin term propositus ('my' in 'my father') is regularly indexed in the kin term itself (Chapter 5), which normally has distinct forms for lat. 2nd, and 3rd persons (1st subsuming exclusive and inclusive first person), expressed by affiliation or stem apposition.

As noted in §5.5, when the propositus is also expressed by a noun/pronoun juxtaposed to the kin term, the former may be in Relative form with /-yin\text{=mu}/ (pronominal /-n\text{=mu}=mu), but is more often in the same case category as the kin term (especially with nonzero case suffix:

(15.1xxxvii) n\text{=mu-ji}E\text{=wanYja=} \[\text{ n} \text{=mu}=\text{wanYja:='I pulled out its body hair emu' 'I removed feathers from the emu'} \]

(15.1xxxviii) n\text{=mu-ji}E\text{=wanYja=}'s ana-mada

\[\text{ 'I pulled up grass grass'} \]

The first of these exx. also permits an additional noun which redundantly specifies the body part, just as the last ex. has redundant expression of the direct object noun; thus (15.1xxxvii) can be elaborated by adding /n\text{=mu}=\text{wanYja=} 'to pull out body hair (or feathers) of [animal, direct obj.]', or /mada=wanYja= 'to pull up grass [direct obj.].'

In the first case, the direct object (including the morphological object in the pronominal prefix) is some animal, such as an emu (bird), so that the cpd. initial 'body hair, feathers' /jiE_/ merely denotes a part of the whole. In the second case, the cpd. initial /mada/= is identical to the direct object noun, also /mada/, which is optionally expressed as independent noun:

(15.1xxxix) nga\text{=ya-nggi} nu-ga-wi-wuy na-ni-nYara-wuy

\[\text{ 'I went you[Sg]-Allative father-Allative 'I went to your father'} \]

See also (5.1.1-11).

It should be noted that such separate expression of propositus is not very common. In /na-ni-nara=way\text{=yin}/, above, the kin term is already specified by stem shape as having 2nd person propositus, and the only semantic contribution of /nu-ga-wi=way\text{=yin}/ is to specify the propositus as singular. In general, the syntax of such kin expressions is consistent with an appositional analysis, though the possesse pronoun may show up in Relative case form (in which case the possessive pronoun acts like an adjectival modifier). Compounding and related derivational mechanisms can also be approached in some cases with an appositional analysis. For example, cpd. initials indicating body parts (i.e., inalienable possessions) are morphologically and syntactically similar to cpd. initials referring to whole objects. For example, from /n\text{=wu}=\text{wanYja=}/ 'to uproot' we can get /jiE\text{=wanYja=}/ 'to pull out body hair (or feathers) of [animal, direct obj.]', or /mada=wanYja= 'to pull up grass [direct obj.].'

In the first case, the direct object (including the morphological object in the pronominal prefix) is some animal, such as an emu (bird), so that the cpd. initial 'body hair, feathers' /jiE_/ merely denotes a part of the whole. In the second case, the cpd. initial /mada/= is identical to the direct object noun, also /mada/, which is optionally expressed as independent noun:

(15.1xxxx) nga\text{=ya-nggi} nu-ga-wi-wuy na-ni-nYara-wuy

\[\text{ 'I went you[Sg]-Allative father-Allative 'I went to your father'} \]

For actual textual exx. of this type see 17.1.1/2.
Recursive genitives of the type 'the X of the Y of the Z' is rarely expressed in Nunggubuyu, except when one of the possessive relationships is inalienable (kin term or body part). There is no difficulty taking a kin term (already specifying propositus) or a body-part term (showing NC harmony with term for whole), and making this into a possessive form with Relative suffix /-yin/'. Thus /-nara-mari-gambal/- /-yin'/ could, in theory, produce examples like this: /nara-mari-gambal/- /-yin/' 'of its sticky substance' (used in sense 'lower section [of a palm sp.]' 117.5.3, cf. in following line /yi:-ngari-gambal/- /-yin/ 'of its head', i.e., 'top section'). An ex. with kin term: /a-gai-gi- /-yin/ 'of mother's mother' in 76.1.3, with 'nonhuman' ANA class form of the term.

Recursion of the (not specifically inalienable) possessive with Relative /-yin/ could, in theory, produce examples like this: /nara-mari-gambal/- /-yin/ 'of the man', since elsewhere /-yin/' is deleted when another case suffix is added (see discussion of case-spreading, this section, above). The combination of two overt /-yin/ suffixes with a noun stem is not recorded; I suspect that it might occur (rarely) in the construction 'about the one of X', in other words, when the outer /-yin/ has the nonpossessive sense 'about' and the inner one is possessive, but I have no exxs. with personal pronoun, so we have a couple of textual exxs. of /-yin/ with this type of meaning (47.23.1 and 64.9.4, discussed §6.4).

An analytic recursive genitive construction of the type /X Y /-yin/- meaning 'the X of the Y of the Z', hence bracketed

[ X [ Y [ Z ]]] is presumably possible, but would not be distinct formally from the counterpart where Y and Z are synonyms in apposition to each other. I can find no exxs., and consider this construction highly marginal (except for the inalienable exxs. mentioned above).

Again we refer to §16.4 for Relative clauses, which have much in common with Relative noun/pronoun forms syntactically.

15.9 Grammatical relations; "dummy" subjects.

The analysis of grammatical relations (i.e., the syntactic counterparts of "case" categories), especially of the nuclear relations like subject, object, and indirect object, is somewhat complex. We will look for patterning in the following three areas, in succession: a) verbal morphology; b) noun/pronoun morphology; and c) syntax. We get somewhat different results depending on which of these areas we look at.

We will use the following terminology in this section:

- • IS = intrans. subject
- • SUBJECT = IS plus TS
- • ABSOLUTIVE = IS plus DO
- • TS = trans. subject
- • DO = direct object
- • BS = benefactive object
- • PATIENT = semantic object affected
- • MO = indirect object

The lower-case labels "agent" and "patient" are exclusively semantic. Upper-case labels are usually meant as grammaticalised categories, but may refer to categories at different derivational levels and may sometimes be used with roughly semantic meaning.

In verbal morphology the following phenomena are relevant:

- a) cpd. initials and Multiple prefixes; b) voice derivations (Refl, Caus, etc.); and c) structure of pronoun prefixes.

The basic result for (a) is that cpd. initials, and the important Multiple prefix form /-ara/-, typically index the ABSOLUTIVE noun (IS or DO). That DO here has an essentially semantic meaning (patient) is suggested by the fact that cpd. initials usually index the object given when the verb is 'to give' (/-yi/-), though this object is not indexed in the pronoun prefix (which does index giver and recipient). Actually, ABSOLUTIVE is probably a little too broad, since instead of /-ara/- another Multiple allomorph /-ara/- or /-ara/- is used for (mostly human or nonvolitional) nonvolitional IS and patient DO

550

$^\text{§15.8} \ $^\text{§15.9}$
These derivational elements do not always provide clear evidence regarding higher-order grammatical relations such as SUBJECT and ABSOLUTIVE. Caus has no effect on the other relations, and since Caus applies (more or less) only to intrans. inputs while Refl and Recip apply (as relation-changing rules) only to trans. inputs, they do not give much insight. There are no striking asymmetries of an "ergative" or "accusative" syntactic type as to which categories may be converted (by derivations) into which others: we have IS becoming either DO (causal) or TS (object-promo- tion), and either Benef or DO (medipassive) or DO (mediopassive) as logical possibilities. 

The most interesting derivation is Benef, since this creates a morphological object (in the pronominal prefix) which will bump out any prior morphological object (i.e., if the input was trans.). From the perspective of the verbal morphology, it could be argued that the underlying DO, while possibly still indexed by a cpd. initial, Mult prefix, or verb-root subcategorisation, has been eliminated (as a nuclear NP) from the "surface structure." Some of the other derivations just listed may change the relational status of a NP (e.g., IS becoming DO) as a secondary readjustment following promotion or addition of another NP, but Benef is the only one which secondarily bumps out a prior NP.

The pronominal prefixes (Chapter 9) are important here in two ways. First, our commentary about the voice implications of the derivational affixes just mentioned was based on perceiving at the pronominal prefix, seeing whether it was trans. or intrans. and for trans. prefix seeing which referent was indexed as TS and which as DO (morphologically). Secondly, the transitive pronominal prefixes may be analysed internally, and some information may be gleaned as to whether the system is basically transitivising or ergative/absolutive in formal structure. Although the system is primarily a direct-inverse one and thus escapes gross classification along these lines, we did find (§9.12) that some allomorphic patterns did point toward a hidden nominative/accusative bias. (The point could have been made more strongly had we decided to make the "inverse" morpheme as basically accusative, a categorisation which would account for its position invariably after object-marking pronominal (it is usually also directly in front of TS-marking pronominal, but may be separated from it by the "paraphrase" §9.8). So the initial results with respect to the pronominal prefixes are different from our results with respect to cpd. initials and Multiple affix, where we identified a rough category of nonvolitional ABSOLUTIVE as an operative category, and found no real evidence for (IS/TS) SUBJECT.

DO, the latter being thus associated with "oblique" cases, especially Allative-Dative. This formalisation is manifested in two ways. First, sometimes DO shows Punctual rather than Continuous form of NC suffix, a prefix variant characteristic of the "oblique" cases (Allative-Dative and the spatial categories). This pattern applies only to a small percentage of DO tokens in the texts, but there are enough exx. to warrant recognition (§6.5.). Secondly, there are some textual passages in which Allative-case is used to distinguish TS from an opposed DO or IO, which is characteristically put in Allative-Dative case form (exx. with DO in this case are 36.3.4, 36.3.5; see §4.22 for further exx. and discussion). There are thus hints of a usually covert differentiation among DO, IS, and BS in that only TS can take Allative case, while IS is opposed to BS and BS is in permitting Allative-Dative case and/or Punctual form of NC suffix. (In §6.5 we mention that personal pronouns also rarely take unsuffixed Oblique form for DO function, the best ex. being "nu-gu-rn'ar/-1/ you[FDu]" in 17.12.4.)

With regard to the discourse-marked pronoun forms like Contrastive (§6.8ff.), it is appropriate to mention here that most often the pronoun is SUBJECT of the clause, but this is only a statistical trend and exx. are attested in DO and other functions. With respect to clause-level or complex syntax, it is difficult to find evidence for grouping the basic categories like BS, IS, and DO internally. Word order (§15.4) is rather fluid to the point where we cannot easily say even basic or underlying ordering of TS vs. DO in transitives. Medipassives (with DO omitted) and antipassives (with DO omitted) are not very helpful, and since the Causative formation does not apply (except in a couple of possible adnominal forms) to transitive inputs it does not provide useful evidence on groupings of underlying relations. There also do not seem to be any systematic requirements of coreferentiality of NPs in particular grammatical relations in the operation of clause conjunctions, or in permitting negative harmony (§15.6) to extend over a span including more than one predicative nucleus. For some possibly relevant data from the "to want" construction see §16.8, but aside from the dubious status of those data, there is no analytically cogent reason to group IS with either of the two major transitive relations in the formulation of the copy-raising rule discussed in the present connection.

There are some important points which must be noted regarding the interaction of case-marking of independent noun/pronoun and the structure of inflected verbs. First, recall that from the point of view of verbal morphology, Benefactive constructions (in which a nonobligatory direct object is indexed by the object marker of the verb, with following Benef prefix) show lack of relational restructurings in which a new morphological object is created, with an old DO (if present) then bumped out to make room.

Since the Benefactive object replaces the old DO as morphological object in the pronominal prefix, we could think of the former as moving up from third to second place (in the fashion of relational grammar), with the old DO being denoted to nonnuclear "chômeur."
However, when these referents are also expressed by independent nouns/pronouns in the rest of the clause, they do not show the effects of any relational restructuring. The Benefactive DO is commonly in Allative-Dative case (§4.20), a category only rarely applied to DO. Similarly, the "denoted" DO in the Benefactive construction typically shows up as an ordinary Nominative noun, rather than in a low-ranking category like Instrumental as is typical with denoted NPs in other languages.

Aside from such Benefactive constructions, there are others where a verb does not overtly index a particular referent which nonetheless seems to behave (in the larger clause) much like a DO. This applies to some simple lexical verbs, and to a few of the "antipassive" cpd. derivatives (§14.9).

(15.1xxx1) wu-waln'n가-1=-mgu-y1: ba-gu ana-mi:mi
it drinks[transn.] there milk 'it [baby kangaroo] drinks milk there'
(92.2.4-5)

(15.1xxx11) yuwa-gu wu-waln'1=in-ja-m'1 yai-j1
there[plst.] they built fire[transn.] have
wu-waln'1=in-ja-m'1, yuwa-gu wu-waln'1=in-ja-m'1
(see above)
yai-j1 wu-waln'1=in-ja-m'1, balawadawu, ana-m'1
huge fire
'They built fires here and there, huge fires'
(100.5-3-5)

In the first ex. we have a cpd. /-alled/' (transn.) 'to drink' from transitive /=lalma-/ 'to eat, consume' (§14.9), while in the second ex. we have a lexical transn. verb. Both imply a semantic object (patient), and this may be expressed by an independent noun, usually in Nominative case (with 'drink' Instrumental is also possible but is uncommon). The independent patients may be referred to as unindexed DOs. Although their syntactic status is somewhat difficult to pin down, in general they appear to act like DOs with respect to clause-level syntax; they may, for ex., be the downstairs coreferential NP in a Relative clause, as may the denoted NP in a Benefactive (100.6.1 is an ex. of the latter; see also §16.4). A further correlation is possible with semantic patient in constructions with verbs like 'to give' (/=lalma-/ and 'to tell' (/=magna/) which have an obligatory DO slot which is indexed in the object marker of the transitive nominal prefix (without Benef prefix):

(15.1xxx11) mana-m'1adan man-uba-ma-yun5 waniwia-m'1
'someone, those guts' (1.10.4-5)

If we add together the unindexed DOs of the formally transn. verbs shown above with the DO of 'give'/tell' and the "denoted" DO of a Benefactive, we have a class of DO-like NPs in the clause which are not indexed in verbal inflection. It is particularly striking that Benefactive constructions show apparent denotation (not merely non-indexing) in the verb, but show no denotation of the corresponding independent NP. It seems, then, that verb-level and clause-level categories are somewhat distinct, at least in the sense that the clause may have a NP acting like DO which is unrecognised in the verb. This is really just another indication of something we have been pointing out all along--there is a considerable degree of autonomy for each noun/pronoun and verb in this language, rather than a system based on tightly constructed phrasal and clause units. For ex., the occurrence of unindexed DOs may be attributed to various local structural/functional pressures applying specifically to verbal morphology—the redundancy of DO-indexing in verbs like 'to drink' (the only traditional possibilities being water, milk, and in unusual cases blood or saltwater), and the allocation of priority to pronominal indexing of DO (which is often human and hence makes maximal use of the set of pronominal categories) instead of DO. Thus the Benefactive verb form seems to be a local, purely morphological relational restructuring rather than a genuine syntactic reassignment.

Finally, there is the matter of "dummy subjects." There are a number of weather verbs of the type 'it rains' or 'it becomes dusk', usually with ANA class subject in the pronominal prefix. However, in Nunggubuyu it seems that the dummy-subject analysis, in which the 'it' is not recognised as referential (rather as having been inserted by rule to fill an obligatory syntactic slot), is dubious. In the case of 'it rains', for ex., the verb is actually 'it all falls' (including cpd. initial /-aG-/ 'ground'), and the subject may be either ANA or NC. Class. Since these are the two possibilites for the noun /abarana/ 'rain', it is reasonable to assume that this noun is the (often covert) subject of the verb form. In the case of /wu-lalma-n Y/ 'it dawned' (ANA subject prefix), there is a variant form with the additional cpd. initial /-aG-/ 'ground', hence /wa-lalma-n Y/ (see 125.11.2 for a slightly different form of this). It may be, then, that the normally covert subject is 'ground', and since /abarana/- also means 'to tear, split' (transn.), the whole expression could mean 'it [ground] splits [as sun rises]' (cf. English 'it happened'). Without running through all verbs of this type, I will simply express the view that the dummy-subject analysis, in which the verb is assumed to be the subject, is rather accidental in the case at hand. (For dummy object, see also §16.8.)

We may summarise this section as follows: within the verb there is evidence from cpd. initials and Multiple prefixes of a division between nonvolitional ABSOLUTIVE and volitional ES (with ES defined negatively as not involved in these forms); verbal derivational affixes often affect voice but do not provide much evidence for "ergative" vs. "accusative" patterns; the Benefactive verb form is the most interesting since it appears to promote indirect object and eliminate direct object, but it turns out that clause-level syntax is unaffected by the "denotation"; pronominal prefixes on verbs show a limited bias for nominative/accusative (ES/TS vs. DO) patterning within a basically neutral direct/inverse system; independent nouns/pronouns usually do not differentiate TS, DO, and ES but show occasional formal convergence of DO with ES active (fully or partially), while TS sometimes shows Ablative suffix; in the absence of Equi and other coreference-based rules it is hard to identify clause-level "ergative" vs. "accusative" syntax; there are many unindexed DOs, but no true dummy subjects.
Chapter 16

Syntax: complex constructions

16.1 Simple clause conjunction and chaining.

As already mentioned in §15.5 and detailed throughout the present chapter, Nunggubuyu "clauses" are normally fully inflected even when functioning syntactically as subordinated. It is obvious, then, that sequences of clauses which describe a series of narrative events, and similar types of clause conjunction, should involve what are formally main (matrix) clauses with perhaps a conjunctive particle or the like (Chapter 12).

Indeed, no overt conjunction is necessary in many narrative passages. In Chapter 17, below, we consider in some detail a single Nunggubuyu text (Text A), given there in a word-for-word "English" version displaying the structure of the original. Perusal of the text will show that many clause transitions (involving, in most cases, narrative-event sequences) show no conjunctive particle whatever.

This does not mean, of course, that Nunggubuyu discourse consists of a simple string of clauses with no structural organization at higher levels. In Text A, for example, we do find formal evidence for multi-clause "groups," marked in many cases by certain initial particles such as /mar/ (§12.4) 'and', /agaba/ (§12.3) 'now, then', and /mijan/ (§12.6) 'again, moreover'; see discussion in §17.9. In addition, there are formal devices for foregrounding and backgrounding alternate clauses, creating somewhat the same effect produced by subordination (switch-reference, gerundials, etc.) in other languages. One type of backgrounded clause, usually involving repeated material, is expressed largely by intonation (§17.4), though aspect (§8.3-4) and noun-class morphology (§4.8) among other devices are also systematically used in this context.

A relatively small number of textual passages contain a clause with a (usually suffixed) subordinator on the predicative nucleus or some other word, indicating a kind of grounding of the clause vis-à-vis some other(s). For discussion see comments on "backgrounded, clarifying" uses of Relative clause in /-yin'um/ (§16.4, below), and on some of the case-suffix subordinators in §16.6. These are not high-frequency formations in simple backgrounding function.

§16.1
The relatively loose structure of clause conjunction is matched by a similarly loose conjunction system for NPs, which often shows the component NPs in an apposition-like arrangement, with only optional usage of conjunctive particles (§15.7).

16.2 Status of "complement" and "subordinated" clauses.

The term complement clause is used in linguistics to refer to certain types of "lower" clauses which are directly within the scope of a "higher" or "matrix" verb such as 'to promise', 'to persuade', or 'to want'. Many languages have a further distinction between finite (or tensed) complements showing the form of a matrix clause plus a subordinating element (English that, French que), and nonfinite (uninflected) complements such as infinitives which show a sharp reduction in regular inflection, often accompanied by partial or full formal nominalisation of verbs.

As we will see in §16.3, below, Nunggubuyu lacks a close equivalent to English indirect quotative complements with that, since quotations are direct (for the fine print see the section cited).

Moreover, Nunggubuyu has no nonfinite complement formation of even slight productivity. There are a tiny handful of nonproductive nominalisations which are formally related to existing verb stems (§14.16), but these are very rare in texts and are not systematically used in any particular syntactic frames; they resemble English words like thirst and death rather than productive infinitive or other complement constructions.

Accordingly, in the remainder of this chapter we will be dealing with finite clause formations with some subordinating element added, generally a "case suffix" in a special clausal function, or some other suffix such as postposition /-maji:/ in conditionals (§16.7). Relative clauses (§16.4) are also full finite clauses with a suffix, usually on the verb, there being no productive participial formations (for a tiny handful of forms which might be classified as representing an unproductive participial type, see §16.21).

In addition to the regular usage of fully tensed clauses where we might expect nonfinite complements, it is difficult even to identify Nunggubuyu syntactic contexts which correspond to the contexts which, in English, call for complement constructions. As we explain in §16.9, many English matrix verbs like 'to decide', 'to persuade', and the like which regularly take complement clauses have rough functional counterparts in Nunggubuyu with an entirely distinct structure; the English constructions can be seen as highly condensed (telescopied) logical representations of more complex situational scenarios which are spelled out more fully in Nunggubuyu (e.g., using direct quotations rather than metagrammatical summaries). Therefore, the absence of nonfinite complements, and the absence of a counterpart even to English finite complementiser that, can be attributed not so much to a different distribution of clause types across (constant) syntactic environments as to a fundamental difference between the two languages in the constitution of these syntactic environments. (For a possible usage of matrix-like clause as complement of 'to want', see discussion in §16.8, below.)

16.3 Direct and indirect quotation.

Essentially all quotation, including quotation of unspoken decisions and other mental ideas (§16.9), is direct. A special intonation is characteristically used for the quoted material (§12.20), and there may be additional signals such as beginning the quotation with an exclamation like 'hey!' (§12.20). Quotations, including mental ones, are commonly closed with a form of the verb /yama-/ 'to do thus', as in "Go", he-did-thus" (i.e., "Go", he-said). The only other verb used in this way with ordinary direct quotations is /hawuwa-/ 'to ask', usually in cpd. form /-yandhawuwa-/ 'to ask [with speech]' (cf. /-ba=dhawiwa-/ 'to ask with eyes i.e., with inquiring look', etc.).

Exx. of direct quotation: /'hawuwa'/- they-did-thus/ 41.9.3-4 (note that the reported sound here is non-speech, so English would generally use they went rather than they said); "I went astray at Ayindur. Maganabdingi took me" he-did-thus' 60.16.1-2; "Where will I go? This way I will go" 15.2.1 (i.e., 'He decided to go that way; no quotative closer here'); "How far? he-asked" 14.1.1.

There is no well-defined indirect discourse construction corresponding to the English type (that complementiser, here-and-now oriented pronoun and tense usage). However, something resembling indirect discourse might be identified in connection with the cpd. verb /-aw=jama-/ 'to think [that...] from root /yama/-'. Here we are, of course, dealing with mental rather than spoken quotations. The context in which /-aw=jama-/ is used is mistaken identification of some object by a narrative actor. All available exx. have as complement a nonverbal clause of the type 'that [is/was]...'. (See, e.g., 12.3.4 "[that] Anaph barracuda they-thought"; 21.2.2 he-thought "[it-[is/was]-Mandharyum-society-country that] Anaph his-still country", i.e., he thought he was still in his own moiety country; FM 23 lines 4 'it-thought "[that [is/was] human]'; MT 28 lines 5-6 up "llice it [is/was]" he-thought that [is/was] lice].

Although tense is indeterminate, use of Anaph demonstrative and 3rd person pronoun (his-still) suggests partial indirect discourse.

Instead of speaking of "complement clauses," then, we will use the alternative term subordinated clause as a cover term in this chapter for finite clauses with some additional element which subordinates the clause to a higher clause (matrix) or to some element elsewhere (in the case of relativisation). This rubric may apply to Relatives (§16.4), Purposives (§16.5), case-subordinators (§16.6), the protasis ("if"-clause) of hypothetical conditionals (§16.7), and perhaps because clauses with elicitic particle /yama/ (§12.12). It does not apply to the apodosis ("then"-clause) of a hypothetical conditional, which has the form of a matrix clause, and should perhaps be kept from applying to the protasis or apodosis of a counterfactual conditional (§16.7) since both of these clauses are in essentially the same form (Past Potential inflection with optional /-magi/ postposition). The term "subordinated" (or even "complement") may be applied to the second clause in the 'to want' construction (§16.8), but we will point out that the evidence for this type is weak.

Another candidate for subordinated status is the Evitative (§8.7).
16.4 Relative clause with /-yinYun g/; case-spreading from head noun. The most common subordinated clause type involving a suffixed "case" suffix subordinator is the "Relative" clause with /-yinYun g/. This suffix has been described in §4.30, where a number of senses including genitive and 'about, concerning' were described for its nominal uses. A similar generous semantic range can be seen in the clausal forms to be described here, and the term "Relative clause" should be taken in a broad sense. We will discuss (at least) the following points in the present section: a) relationship of /-yinYun g/ clause to head noun; b) set of possible grammatical relations of head noun (in matrix clause) and of coreferential noun (in subordinated clause) when a head noun is clearly present; c) exx. of various verbal inflectional categories in Rel clause; d) 1st/2nd person heads; e) use of unsubordinated clause in roughly the same meaning as Rel clause; f) addition of /-yinYun g/ to constituents other than predicative nucleus within Rel clause; g) interaction with conjunction; h) interaction with a preceding DemPro (often Anaph, sometimes Prox or Imm) is usually a giveaway that the Rel clause is in restrictive modifying function, as in the first of these two exx.; see also 15.7.1, 47.9.1, 47.9.2, 106.4.5, 54.1.3/2, 54.2.4, 55.3.4, 55.4.2, 56.1.2, 54.8.3, 65.4.1/2, 123.4.4, and several others. However, a DemPro need not be present for this to be the meaning. Some exx. of (a) are 7.21.6 ('man's n,i, in-English he-who-will-write-it, he-who-will-tell-him') and both exx. in 47.5.5 ('not they-went, the-those-who-were-tired, who-were-tired-of-walking'). In many instances the matrix clause typically has a pronominal subject-object marker in the verb which is coreferential to the referent of the Rel clause (though if the matrix-clause case is a spatial one or another not cross-referenced in the verb this need not be true). The difference between (a) and (b) is not great. Just as NAdj, and coreferential noun or may occur by themselves as the only overt element in a "NP," so a Rel clause may appear by itself as a formally "headless" relative clause, or may occur with juxtaposed head (as with DemPro and NAdj), the linear order is not rigorous and intervening constituents may occur; however, a Rel clause commonly follows its head.

Type (c), with no overt or covert head noun, is difficult to identify clearly since in many cases there is a possibility of assuming a covert matrix NP in some minor case category; the problem is compounded since there are often two or three ways of analysing the semantics of the whole construction. Some exx. possibly involving a covert (zero or minor-case) head are these: roughly locative head in 20.17.6 ('...they-stopped; where-they-stopped-they-stayed'); allative in 43.15.5 ('[they] went slowly and log-which-was-open and go-in[roof form], they-went-in now into-log'), though here the head does appear in the ensuing discussion (in the underlined Rel clause "log" is initial rather than a separate head noun); covert Benefactive (dative) object in 91.1.3 ('[they only they-make-it[burial], for-Who-who-is-named with ritual name], they-sleep them again and again temporal "when" in 161.1.2 ('in-hush my-, when-we-stayed'), though "when" does not correspond to a specific nominal case.

There are a number of somewhat clearer cases of type (c), in which the Rel clause has a backgrounded, clarifying deixis role, or perhaps acts as a kind of complement clause. The "backgrounded" usage here is to be distinguished from the use of narrative repetitions (usually with Continuous aspect and often reduplicated) to frame event predications discussed in §17.3-4.

650 §16.4 probably arbitrary, we can distinguish in principle the following three types: a) Rel clause functions as restrictiv modificator of an overt head noun; b) Rel clause functions itself as a NP with a clear grammatical relation in the higher matrix clause although there is no separate overt head noun; c) Rel clause is not linked to a specific head noun, and functions semantically as some other kind of subordinated clause. Some exx. of (a) are 17.11.4 ('they-finished-him-off, that[Anaph who]-on-platform, they-finished-him-off') and 167.17.2 ('hec-went-out-water [k]-kather [ho]-died-just-pl.n.[§4.4] where-they-speared, [namei],') among many others. The occurrence of a preceding DemPro (often Anaph, sometimes Prox or Imm) is usually a giveaway that the Rel clause is in restrictive modifying function, as in the first of these two exx.; see also 16.23.3, 47.20.1, 47.10.6, 56.1.2, 64.8.3, 65.4.1/2, 123.4.4, and several others. However, a DemPro need not be present for this to be the meaning. Some exx. of (b) are 7.21.6 ('[man's n,i, in-English he-who-will-write-it, he-who-will-tell-him') and both exx. in 47.5.5 ('not they-went, the-those-who-were-tired, who-were-tired-of-walking'). In many instances the matrix clause typically has a pronominal subject-object marker in the verb which is coreferential to the referent of the Rel clause (though if the matrix-clause case is a spatial one or another not cross-referenced in the verb this need not be true). The difference between (a) and (b) is not great. Just as NAdj, and coreferential noun or may occur by themselves as the only overt element in a "NP," so a Rel clause may appear by itself as a formally "headless" relative clause, or may occur with juxtaposed head (as with DemPro and NAdj), the linear order is not rigorous and intervening constituents may occur; however, a Rel clause commonly follows its head.

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We now consider the set of grammatical relations which the coreferential Rel-clause NP and the head (in the matrix clause) may have in their respective clauses, referring to combinations where such a head is clearly identifiable (i.e., in restrictive modifiers reading). Since it is not even necessary that there be a head, we do not expect any particular constraints on coreferential network when there is a head, and this expectation is basically borne out.

Theativised NP in the Rel clause itself can apparently be in any relation and need not be cross-referenced in the verb. We can cite the following: trans. subject 10.14.3 ("he议论 monster which-killed-for-me my-son"), cf. 45.10.5, 46.1.5, 47.4.6, etc.;

intrans. subject 13.5.1 ("as-for-them[ants] who-go-in-front another path they-make"). cf. 17.11.4, 55.12.3, 47.5.5, etc.;

regular direct object cross-referenced in verb 7.15.5 ("share it-lay stone, which-she-had-saten"), cf. 16.17.7, 16.23.3, 32.8.4, etc.;

semantic direct object (patient) not marked in verb or humped out by co-occurring Benefactive (cf. §15.9) 57.7.6 ("rituals which-they-danced", with Intrans. verb 100.6.1 ("they-built-fire", huge-fire, which-they-built-for-it, crab", whose build-fire) is intrans.

cf. 47.23.7, 57.2.4, 57.3.5, 59.3.7, 59.9.1, 59.10.7, 105.3.5, 105.5.3, 110.3.6, 116.9.2, 119.7.3, 184.12.2 (second Rel), 166.20.3;

comitative [see §10.3] 73.4.7 ("they-bestowed-on-him woman who-which-he-slept", i.e., for him to sleep with);

instrumental 7.7.6 ("stone, which-she-made-with") intrans. cf. 13.9.4, 14.12.2, 66.1.5, 66.2.4/6, 68.1.5, 76.1.1, 71.11.1, 75.17.5 (several of these have alternative construals);

locative or allative 18.1.2 ("fish-trap this, which-it[fish-went-into]").

19.7.1 (first Rel), 110.3.6, 65.20.3;

Indirect object (dative) 59.6.4 (no dative marking in Rel verb, and indirect [Benefactive, with whole-to-part coreferentiality with patient];

perspective/goal 57.7.5 (second Rel), 93.2.2; "about, concerning" (a meaning which Relative nominal case marker often has, §4.30) 47.7.2, 47.20.1, 47.22.6/9, 64.3.7, 69.13.2 (some of these are apparently functionally charitable);

possessor in possessive predication 'X has Y' 54.3.1/2 ("[if-they-die, who-not-have law, who-not-have ritual]") and 54.4.1 ("[who-does-not have law, not-to-where-they-will-go]"); in these last possessor clauses is based on a simple predication of existence (or in these particular exx., non-existence), so there is no overt cross-referencing of the possessor within the Rel clause.

as can be determined. We will observe below that when the head noun is in a nonzero case, it is possible to replace 'yin'un in the Rel clause by a copy of the head's nonzero case. Leaving such case-spreading exx., aside for the moment, we find regular 'yin'un/ Rel clause modifying nonzero-case head in such exx., as 47.10.3 (allative passive), 69.13.4 ("about, on one reading"). 71.11.5 and 71.27.2 (possessive, most cases in the latter exx.), and 113.8.5 (allative). There are, of course, a great many exx., involving heads functioning as subject or object. In 73.1.2 we have a head which ends up as predicate gen't etc. n 73.1.2 we have a head which l lve wo lines later'.
Internal derivational processes like Recip and Refl apply within clauses prior to such embedding rules as relativisation. Exx. of Recip intrinsics, subject relatives are 47.1.1 and 47.2.4f.7 among many others; a Refl ex. is at the end of 47.4.4.

Whole-to-part coreferentiality, involving a term for a person or other recognisable entity and another term for a body part (or similar inalienable like 'name'), turns up occasionally in the relationship between head and relativised noun: 88.1.4 ('name'), 108.6.1 ('shadow'). For information about this type of coreferentiality in other morphological contexts see §4.9, §14.6, §15.8. For strict-inclusion coreferentiality (singular vis-a-vis plural), see discussion in this section, below, on interactions with conjunction.

Although most of the textual exx. involve Rel clauses whose verb is Past2 (most often Past Continuous) or Nonpast2 (usually Present), there are no formal restrictions on verbal inflectional category as long as the combination makes sense. I do not have any exx. involving Evitative verb forms (§8.7), Past Potentials (§8.6), or Future forms in imperative sense (§8.5); I presume one could construct Past Pot exx. which would make sense but this would not be easy for Evitatives ('lest...') or imperatives. Exx. of other categories are Past1 (Past Functional) 13.40.4 (two), Nonpast1 (Present) 47.23.7 and (Future Continuous) 54.4.4. Negative forms (which involve some changes in verb forms, Chapter 8) are discussed later in this section.

Of course, heads of Rel clauses are usually third person nouns or pronouns. However, it is possible to have 1st/2nd person pronouns acting as heads, in which case there is usually some grammatical or contextual reason why this is considered appropriate (§5.1.4). The best textual ex. involves 1st/2nd person pronominal marking in the Rel clause (and, if appropriate, also in the matrix clause). The best textual ex. involves 1ExPl in 114.11.6 ('...we-ate-it, we-who-they-begat'). The form here involves /-yinYun g / added to another constituent especially /-yinYun g / (§4.13.0) because of-from 'them'-[Di~~l]~tehd-0 (noun-and-verb) Rel it: n that[lawj, an as-from他们会, 'they[old people] begat us'.

Many passages where instead of a perfectly possible Rel clause we have a construction meaning 'Tell those people about this song we-wrote-it, we-they-begat it'. The form here involves /-yinYun g / added to another constituent especially /-yinYun g /, and that 'complements' of verbs or other whole entity and another term for a body part (or similar inalienable like 'name'), turns up occasionally in the relationship between head and relativised noun: 88.1.4 ('name'), 108.6.1 ('shadow'). For information about this type of coreferentiality in other morphological contexts see §4.9, §14.6, §15.8. For strict-inclusion coreferentiality (singular vis-a-vis plural), see discussion in this section, below, on interactions with conjunction.

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It is not as easy as it might seem to decide which analysis is correct. This is because the nominal case-marking use of Rel /-yinYun g / (§4.30) is very broad semantically, and in particular is not confined to genitive /-yinYun g /, an because /-yinYun g / is attached as a suffix within the Rel clause (and, if appropriate, also in the matrix clause). The two alter-

Relevant textual exx. are these (using 'of X' as conventional close for Rel suffix form of noun): 54.1.5 (two) ('if-hei-dies, of-law: he:-[who-holds-it], of-law: he:-[who-holds-it], i.e., if a man who has ritual power dies'), or, negative counterparts 54.3.1/2 and 54.4.1 with Rel suffix added to negative element: 55.5.4 (they:-got-painted and, of-there[Animal] of-first, and of-from-there[Dist] whom-they-brought', i.e., the latecomers who were brought in as well as the first group there); 57.3.5 ('women', [as-for-them, they:1 dance too, that[dance] of-forked-stick which[dance]-we-sing', i.e., which we perform at the forked-stick

**FIGURE 16-1**

analyses of Double Noun-and-Verb Rel sequence

appositional-Rel analysis

Rel-doubling analysis

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Figure 16-1

565
dancing ground; §64.9.6 ('I discussed totems, that-kind, we of-countries; which, made-them, all, i.e., which created our [clan] locations'); §73.7.5 ('as-for-us of-elders; we, who-heard-them'); §74.3.1 ('also that-one, who, follows of-countries. which, made-them, all', i.e., which created our [clan] latter is semantically preferable in such cases as §73.7.5.

There are also numerous exx. where a noun (including NAdv) which appears to be semantically within a Rel clause does not show a second occurrence of the /-yin/ suffix: §47.4.4/5, §47.6.3, §73.3.4, §85.1.5, §115.2.5, §166.22.2. There does not appear to be any strict syntactic rule as to when the noun in the Rel clause shows /-yin/; for example, in one of the exx. in this last list the noun without /-yin/ is the direct object of the Rel clause; compare the ex. §64.9.5 (this page, top) showing Rel ('of-') on direct object ('countries'). My basic conclusion is that the double-Rel (noun-and-verb) construction may reflect either formal apposition of two Rel nodes, or optional Rel-doubling within a single Rel clause, the two sources often being impossible to separate.

Consider the relationship between relativisation and conjunction (see §15.7 and §16.1 for background). To begin with, two Rel clauses may be conjoined in apposition (i.e., both modifying the same noun, overt or covert) as in §45.4.2 ('it, dumped-out-for-her those, annoons; fish; which, who, recognized [and] who, who, recognized'), cf. §47.2.4ff., §47.4.2ff., §47.6.3ff. (This should be distinguished from simple repetition of a single Rel clause, as in §103.1.4.) It is also common to find a semantically empty Rel clause based on the neutral verb /=yama-/ to do thus, to do like that juxtaposed to a more precise verb, as in §47.5.5 ('it, who, were-tired, who, were-tired-of-walking'); also §47.7.2 ('it, who, were-tired, who, were-tired-of-walking').

Rel clauses may also be conjoined when noncoreferential to create semantically plural units, but the exx. in the texts generally involve overt nouns with them, as in §115.2.5 ('we, who, caught lots, /-yin/'). Saratoga:fish sp.1 which, we, caught fish; which, we, speared barramundi [fish sp.2]. As with other noncollisional conjunction (on which see §12.4).

Our next point in connection with conjunction is that we can have restrictive relatives with overt head nouns (or matrix-clause pronouns which also function logically as heads of the Rel clause), where the head is singular and the conferrential NP in the Rel clause is plural and subsumes the referent of the head. Such strict-inclusion cases are of the general type 'the man, who they, j live here', which would be reshaped in English as 'the man, who they, j live here with him/her' or some similar construction.

Textual exx. of this pattern are these: §73.3.4 ('the, stabbed him, that-one, they, who, were-equal but equal they, stabbed each-other', though here the Rel clause may be taken as a background one rather than as a restrictive modifier), §79.1.5 ('if he, who, grabs-her that-one, who, they, sleep [i.e., who, sleeps with her husband], he, will-take-[her] from him'); §98.3.1, perhaps, §79.1.5.

In §99.2.1, on the other hand, we have a singular Rel clause which turns out to designate one referent subsumed by a plural pronoun in the matrix clause: 'we, , who, was-fag-in-front now we, who, were-tired for these, 'the and let', help, which, who, were-equal, and the latter is semantically preferable in such cases as §73.7.5.

Turning now to interactions between relativisation and negation, we remind readers that a scope-bearing negative element ('=yam/ or /yagl/, also NAdv) in negative existential sense produces formal effects on predicative nuclei and all nouns (including NAdv) within its direct scope. Verbs thus take special forms (Chapter 8) and all nouns must have Continuous form of NCinfl prefix (§4.7, §4.8) when directly under the scope of such a negative element, as explained in §15.6 in connection with 'negative contexts.'

Although a single negative element may have a sequence including two or even three predicative nuclei in its scope for this syntactic process, the scope of a negative does not cross the boundary between a matrix clause and a Rel clause. In particular, a matrix-clause negation has no effect on the verb of a Rel clause, and vice versa. It is, however, possible that matrix-clause negation requires usage of Continuous prefixes in (nonpredicative) nouns in a Rel clause which is clearly associated logically with this matrix clause (i.e., has a clear head noun within the matrix clause or is, as a clause, subordinated in some way to the matrix clause).

Exx. of positive Rel clauses associated with negative matrix clauses are these: §47.4.5/6 ('[some heard and learned the rituals, but] they, who, who, had-bad-voices [did] not [learn], but they, who, got-it-wrong [did] not [learn]', with order of words changed, 'they, who, went, but, those, not, they, wanted-it-ritual but, not, they, went, who, who, who, who, tired-who, tired-of-walking'); also §47.5.5 ('=yama-, who, who, who, recognized', 'who, who, recognized'), cf. §47.2.4ff., §47.4.2ff., §47.6.3ff. (This should be distinguished from simple repetition of a single Rel clause, as in §103.1.4.) It is also common to find a semantically empty Rel clause based on the neutral verb /=yama-/ to do thus, to do like that juxtaposed to a more precise verb, as in §47.5.5 ('it, who, were-tired, who, were-tired-of-walking'); also §47.7.2 ('it, who, were-tired, who, were-tired-of-walking'). Rel clauses may also be conjoined when noncoreferential to create semantically plural units, but the exx. in the texts generally involve overt nouns with them, as in §115.2.5 ('we, who, caught lots, /-yin/'). Saratoga:fish sp.1 which, we, caught fish; which, we, speared barramundi [fish sp.2]. As with other noncollisional conjunction (on which see §12.4).

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There are also, of course, cases where there is a negation within the Rel clause itself. Exx. in which the matrix clause is positive, so there is a clear bounding of the scope of the negation at the Rel-clause boundary, are 47.15.1 ("not-wh0 who-listened, of-another-country they-stayed," i.e., those who did not [want to] listen to the ritual stayed home in their country), also §4.3.1/2 and 71.10.5 (the latter can be analysed syntactically as one which was not like this', though a looser English gloss could be 'not [powerful] one like this' as in the NMET translation). In these negative Rel clauses, there is either a negative-existential predicate with /wa:/ (§4.3.7, with negative possessive sense), or a regular negative element, usually /war-g/, which induces negating regular negative forms of the verb or predicative NAdj, as well as requiring Ngir-gi prefix in Continuous form in adjuncts. Thug the Rel-clause verb in 47.15.1 is /ambara-wa=/war-g1i-1-yin un'/ 'they did [not] listen', with B form of pronominal prefix /ambaru-/, as regular in Past Negative, as opposed to positive counterpart with prefix /wa=/, hence /wurar=/war-g1i-1-yin un'/ 'they listened' (Rel).

Finally, we can cite a couple of textual exx. where both the Rel clause and the matrix clause are (separately) negated: 47.6.3 ("those who did not want each other's words, they did not go", with word order Anglicised), also §4.4.1.

When the Rel clause is internally negated with /wa=/, "not" (negator for Past Actual and Present), Rel suffix /-yin un'/ is commonly attached to /wa=/, as well as to the predicative nucleus. (If /war/ to be absent, not exist) is the predicative nucleus /war-g1i:/ is naturally added to it). There are some exx. which do not follow this pattern—71.10.5 shows /-yin un'/ just on the verb, as does 47.6.3. These facts may be relevant to our earlier discussion (§15.6, especially Figure 15-2) of the possibility that /war-g1i:/ as clause negator may be analysed syntactically as a separate predication.

Our next topic is double subordination in which a Rel clause is either itself subordinated to another subordinated clause of some type, or contains a subordinated clause. Such complex constructions are uncharacteristic of Nunggubuyu, and there is no special morphological marking of doubly-subordinated clauses, but there are a handful of textual sequences where double subordination is probably present at least in terms of semantic interpretation of clause strings.

There are no good exx. of one Rel clause attached as restrictive modifier to a head which is itself inside a (higher) Rel clause. There is one textual ex. which might be interpreted this way, but an alternative construal is possible: 47.15.2-4 ("they, who, headed-for-them; now they, who held words [knowledge] and, those, who held the words [knowledge] they told them; they, who held the words [knowledge] they told them; they, who held the words [knowledge] they told them!"). If we analyse this as 'they, who headed for the ones; who had the knowledge were told [by them]', we have double relative subordination. On the other hand, we could associate the second underlined Rel clause with the final predication: 'they, who headed for them; were told by the ones; who had the knowledge'. This would not involve double subordination. Because of the absence of any telltale morphological

or other overt clue, it is difficult to establish the correctness of one interpretation over the other. My conclusion is that double-Rel subordination is not typical of this language, but that juxtapositions of two Rel clauses may occur in contexts where such a semantic interpretation is possible.

Textual exx. where a Rel clause is inside another subordinated clause (at least semantically) are these: Rel clause in a purposive clause (§16.5) in 69.10.5, and Rel clause inside predicative ("-yin un'") clause of conditional (§16.7) in 49.2.5, 54.4.4/6, and 79.1.6. It is more difficult to embed a purposive or conditional clause inside a Rel clause for logical reasons; we can cite only one ex. of a direct quotation inside a relative (59.3.7)

As we now consider case-spreading, which has been alluded to before in this appendix to verbs, we can cite only an ex. of a direct quotation inside a relative (59.3.7).

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added to the already compound case-marker sequence /-wala-waj/ (§4.26), which here seems to emphasize numerical extent (as it does with demonstratives, see §7.9 discussing /-ala-yun/ vs. /-ala-waj/). Aside from this rather unusual instance which has specialised meaning, /-yun/¹ is not attested as a relational or following a nominal Rel clause suffix to a noun already having a spatial case suffix such as /-wala/ 'from', see §4.30.)

Regarding the ordering position of Rel clauses, the main question which suggests itself is whether the Rel clause is directly juxtaposed to the head (if the latter is overtly present), in which case the Rel clause will sometimes be physically contained within the matrix clause, or whether the Rel clause must be a peripheral adjunct to the matrix clause (even if this means being physically separated from the head). Unfortunately, because of the choppy nature of Nunggubuyu phrasal and clausal structure and the frequent usage of repetitions and afterthought phrases, it is not so easy to determine this as it might seem. As a generalisation, we may say that Rel clauses often directly follow the head (including DemPro) and may therefore be physically inside elements from the matrix clause, as in 32.2.4 ("some-others; which-

/

they-

were-

there /

in-[the-form-of]//here where they-

1-116", cf. also 13.5.1 (taking 'as-for-them' Contrastive pronoun as head), 40.7.5, 47.7.2, 66.2.5, etc. However, Rel clauses may also occur following (less often preceding) the matrix clause, often acting as clarifying afterthoughts even in restrictive modifying function, as in 15.3.3 ('fish; he-hooked-them, big-ones; which-were-like-cats').

Past reflexes also the strings of Rel clauses in 45.2.2, 47.2.3, 47.2.4, 47.2.5, etc. On the other hand, the head may be omitted initially, then added after a (coreferential) Rel clause as a kind of afterthought, as in 54.1.4 ('if-he-dies [law-who- he-holds-it] liamant', cf. perhaps 47.2.2.

The matter of ordering is complicated by the occurrence of sandwiching structures in which a matrix element (perhaps the head) is repeated, occurring on both sides of the Rel clause. Thus in 1.7.3 ('he-tied-up-entails [by-means-of] that; bark-fibre; here which- he-held he-tied-up-entails') a matrix predication is repeated on both sides, sandwiching the NP containing the Rel clause; cf. 17.11.4, The Rel clause may also occur between two coreferential (appositional) elements, as in 71.2.2 ('that-they- whom-they-hunted, man...') and other exx.

The remarks on appositional structure of "NPs" (§15.2) and on afterthoughts (§17.7) elsewhere in this grammar are pertinent here. Order of elements in multi-word Rel clauses is also somewhat variable. A WP follows the Rel-clause verb in 10.14.3, 47.4.3, 67.2.1, 74.1.1, but precedes the verb in 7.2.1.6, 47.4.5, 47.6.3, 54.1.4, 64.3.7, 64.9.6, 71.3.4, 112.5.5, 116.3.2, 161.3.1.

16.5 Purposive clause with /-yun/¹ /guyun/. Purposive case suffix /-yun/¹ /guyun/ is used as a subordinator in a variety of functions. For its use with nouns see §4.24.

\[\text{§16.4, §16.5}\]
In general, then, /-yun-guyun/ (Purposive) clauses tend to mean 'in order to' or 'so that', indicating some intended consequence of the event in another (usually preceding) clause, which may sometimes be a Future in imperative sense. However, we also have a sense 'was (just) about to' indicating an apparently imminent event (which is, as it turns out, usually interrupted or delayed) with Past Potential verb (rarely Past Actual); in this sense there is usually a following verb indicating the interrupting event.

A following verb indicating the interrupting event.

Purposive clauses with /-yun-guyun/ may occur with certain particles (Chapter 12). The most common one is /-num/ which otherwise may mean 'like, similar to' (§12.13). Textual exx. are 4.8.1, 47.18.7, 65.15.1, 69.13.2, 89.2.3. In the sense 'was about to' the particle /-nya/ (§12.17) may co-occur, as in 11.7.1 and 12.7.2; the basic sense of this particle is anticipation/imminence.

Purposive /-yunggu/ is usually just once in the clause, on the verb or other predicative nucleus. In one ex. it is, however, attached directly to the /-num/ particle, hence 65.15.1

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we knew'). In a more productive construction could have showed in order to throw it at him (spear him with it)?'. I count 24

verbs without /-yungguyun/ can be translated as purposives. For Locative /-ruj/ (§4.25) I count 16 textual occurrences in NMT as a clausal subordinator, including one (16.23.1) where /-ruj/ shows up as a noun though it logically subordinates the relevant clause as a whole; the others have /-ruj/ as the verb or other predicative nucleus. The most common meaning in 'where X', i.e., the place where an event or situation X (expressed by some clause) occurred. There may or may not be an appositional NP in locative sense outside the subordinated clause; if there is, we can take the Loc clause as showing head-to-head case-spread (as the Loc clause can be identified as really a Rel clause modifying a Loc NP in the matrix clause). However, sometimes a co-occurring Loc noun is best recognized as being a noun within the Loc clause which receives its Loc case-marking by Pred-to-NP case-spread inside the clause (in which case the surface Loc noun may be semantically nonlocalative. Even if a clause-to-clause noun does not get a copy of the Loc suffix from the predicative nucleus, the noun may at least show Punctual case-spread, as in 16.3.21.5 (appositional to

Note: only representative glosses shown

For convenience, a simplified schema showing the meanings of case-suffix subordinators with basically temporal functions is given above as Table 16-1. It should be mentioned right away that some of these usages are fairly uncommon, and that the same suffixes may be glossed in other ways as well for details see the rest of this section. We now analyse the textual occurrences of the various case-suffix subordinators in the order they occur in the section heading (preceding page).

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120.1.3 ('Koolatong [River] my[country] where-it-bore-me', i.e., in my mother's clan territory), 165.16.3 ('on top, where the Christians have meetings', with meeting in Punctual form), and 165.21.2 ('where Emu ate the stone, there we stopped'), with Loc suffix added to 'stone' rather than 'she-eats-it', and with Loc clause picked up from 'there' ('/wa-nl/ [it-is-that[Anaph]'] in following matrix clause. From Hughes's texts we cite TNT 4
/n=ha-n=ma-n=-yu/ [he stopped] where-he-stood (i.e., landed); TNT 7 /hina-harum==ru/ [she went and came to] where-he-was-making-string; and TNT 23 /or=ba-ni-ru/ n=ma=ma=ri=ru=aj a-n=argu [he returned to] where she [had]
cooked the wallaby' (lit. 'that-Loc she-cooked-it-Loc wallaby', with 'wallaby' in Punctual prefix form).

ABlatives /-w=a/ is reasonably common, occurring 19 times in NNET (and 8 times in Hughes' texts). While a handful of the exx. might be construed as showing head-to-Rel case-spreading (from Abl head noun in matrix), in general the sense is that of an adverbial subordinator. The gloss, in particular contexts, may be 'after X' or 'from X, as a result of X' where X is some clause. (For /-w=a/ with nouns see §4.21.) There are a few problematic cases as well.

The gloss 'after X' seems best in 10.16.2 ['she saw him like that] after-he-lay-down', and also 20.2.2-3, 28.10.6, 47.16.5, 69.5.2, 98.6.3 ('rain after-it-fell' with no case-spreading on noun 'rain'), 108.6.6, 163.9.2 (but could also be construed as head-to-Rel spreading from preceding Abl place n.). The gloss 'from X, as a result of X' seems best in 47.20.3, 98.2.3 ['content-feeling bear'] was feeling bear, a papery-leaf of a paper Bark tree', with Pred-to-NP spreading adding Abl on 'paper Bark tree', 161.33.6-9 [four exx.]. In 95.2.2/3 we have two exx., each in apposition to /ya=ji-li=ja/ [along this side' (/§7.21/), so the Abl suffix here has a real spatial sense ['along'] from which X indicates a trajectory (see §4.1.2). It is not used with non-particles). More difficult exx. are 14.7.2 and 157.9.4, though they can be construed as having the Abl suffix mean 'after'.

The exx. from Hughes' texts are TNT 18 line 5 ('after'), 25 line 3 ('after'), and 31 mid ('from where?'); and MT 9 line 8 up ('so that'), 17 line 6 ('after'), 21 mid (?), and two 29 mid ('as a result of').

The transcription /-waj/ represents Progressive /-waj/ (-baj) after stop or nasal) and Retrospective Progressive /-waj/ (-gaj/), see 12.21. Often added to verbs, the two can be phonologically distinguished only if the verb form ends in stop or nasal, which in practice means if the verb is Past1 or Nonpast1 (i.e., usually Punctual), while with other verb forms (Past and Future Continuous, Present) the two cannot be reliably differentiated.

The meaning of /-waj/ as a subordinator is 'back when X', generally referring to some lengthy period of time in the distant or fairly distant past. Some of the most common forms involve predicative NAdj meaning 'child', 'young man', etc., hence 'back when I was a child' etc. Although 'back' in this context /-waj/ rather than /-waj/ is required in Nunggubuyu.

Exx. are /n=a=wiri-gaj/ /65.11.6 'back when I was a child' (/wz1r1gaj/ and /n=wi=wiri-gaj/ /47.2.3 'back when she was a child' (this latter ex. is followed by /wiri-gaj/ with the pronominal prefix strangely omitted). Although phonologically ambiguous, /-waj/ in 65.12.7 ('[back] when I was a young man') and 71.32.2 ('[back] when we were young') is almost certainly /-wa/ as well.

The only textual ex. showing /-baj/ allomorph of /-waj/ is /n=na=rad-ba-n=ba/ TNT 10 (line 3 up 'where he tied it', though this may be a frozen place name. Though /-waj/ was freely given by informants in elicitation sessions as an equivalent of English 'while', it does not seem to be very common in very brief texts. Exx. from NNET which, though phonologically ambiguous, can safely be considered to involve /-waj/ are 43,4.1 ["... it said as it went along", 'before X' (i.e., 'while not yet X') in 47.19.3 ('before it dawns'), and perhaps in 40.6.2 ('when they are lost'). We probably also have /-waj/ in MT 6 line 1 /ni=jarara-n=wi=adj 'while he was still going along' with /-wugaj/ postposition 'still', §12.21.

This gives us a total of 8 exx. of both Progressive suffixes combined in NNET, and another 2 in Hughes' texts—obviously a paltry total for subordinators translatable as 'while'. Often these suffixes are in discourse passages where they would be semantically reasonable, as in 11.3.3-4. The use of the Progressive suffixes seems to require that the background ('while X') situation be an extended period of time, rather than a simple imperfective situation framing another more punctual event. For other devices for backgrounding one clause vis-a-vis another see Chapter 17 (including §17.3-4), also §8.4 and the particles discussed in Chapter 12.

/-waj/ 'up' / is found as a subordinator 11 times in NNET and twice in Hughes' texts. An adverbial sense 'as soon as' (with past or future reference) was obtained regularly in elicited utterances but this was rare in the texts; the only good exx. are the two in 163.2.6 /war=st=uy, war=sa=du=uy/ 'as soon as there was no [more] [as soon as it[work] was completed'. By contrast, we have definite head-to-Rel spreading from dative head twice in 80.1.6-7: [I will give name] to-there now that, to-boy, whom /-waj/ is followed by /-waj/ where the two Rcl clauses are surface All-Dat clauses /n=an=1= adverts /guy/ with /-waj/ added to /I-will-beget-him', 'I-will-find-him'.

Similar spreading may be present in the three All-Dat clauses in 47.17.2-3, and is clearly present in 73.4.5. The sense 'to where X' where the content of the subordinated clause is found in 65.2.2 twice /war=st=uy / to-where-they-catch-fish' to / where-they-catch-fish'.

Since the 'as soon as' sense is not very common in texts, we may point out that roughly the same effect can be achieved by simply conjoining the two relevant clauses, with perhaps an additional particle emphasizing suddenness or abruptness (/§12.7/) or just a slight narrative break (§12.4-5), or perhaps a dramatizing verbal root form (§12.2).
Original /-miraudu/ is rare even as a nominal case suffix (§4.27). As a clausal subordinator we find it 4 times in NMET. The exx. suggest that /-miraudu/ as subordinator is rather similar in sense to Ablative /-/yala/ (see above). The gloss is 'as a result of X' in 55.3.7 ('the-food, [which-they-get-]from-their-going' i.e., from going and gathering) and 161.21.2 ('[I obtained food rations and took the people along] from-working', i.e., the food rations were earned by working). In 55.9.2 I have two exx. where the best English gloss is 'after X', though the activities in question are ranked in an organic sense rather than merely having an accidental temporal relationship '[they]circumcised them' after they 'stay-up and after they-dance'. I know of no exx. of subordinator /-miraudu/ in Hughes' texts.

Instrumental /-/mi8/ is very rare as a subordinator; I can cite 2 exx. in NMET Apd 1 in Hughes' texts. In 47.8.8 we have a sequence /n-a-gu-rai/-yu:n-miri n-/-u-/-di:=-n/-mu:-/-miri/ '[even among] ou selves[InPl] we[InPl]-were-afraid'. Here /-/mi8/ is added first to a Contrastive form (§6.8) of an independent personal pronoun, apparently in a kind of reinforcing sense rather than instrumental. This emphatic sense is not found with /-/m/- as nominal case marker (§4.27), but is typical of /-/mi8/ as a suffix with demonstratives (§7.19). In the ex. cited, /-/mi8/ is then added as well to the verb 'we-were-afraid'. This looks like head-to-Rel case spreading formally, though the verb does not really have relativising function. Our other NMET ex. is 161.25.4, where /-/mi8/ is added to 'we-broke-it-up' in the passage 'with-[]sticks we-dug, we-dug, we-broke-[ground-up] we-jabbed-into-it[stone] they-out-it-up by-means-of whatchaamamcallit[with-wood, the-stone]'. It is not clear why /-/mi8/ is added here; it might be due to the preceding thing if we take the 'we-broke-it-up' as being associated with the nouns 'stick' and 'wood' (which are here referential to each other), which occurs contingously in the passage. Or, we could take 'we-broke-it-up' as explaining the mechanism behind 'we-dug', i.e., 'we dug by breaking up the ground', in which case the Instrumental clause would be merely loosely appositional to 'stick, wood'.

The Hughes ex. is TNT 5 line 6 /ni:-maga:/wuguni:-mi8/, which apparently means 'he suddenly got stuck [for good]', referring to a man who fell into a hole and was trapped; /-/maga:/ may indicate verb action, and /wuguni:/ is apparently related to the normally reduplicated NAdj /wuguni:/ /for good, permanently/; though, it is possible that it refers more directly to /-hu:/ 'to there [Anaph]' (§7.13) and/or to the related forms /bo:wi-wuguni:/ 'Facing that way' (§7.22, normally with Concrete suffix /-/u/ added). The /-/m/- has a reinforcing rather than instrumental sense.

Similative /-/yi8/ 'like, similar to' (§4.29) may occur as a clausal subordinator in the sense 'just as X' where X is some proposition, usually an activity. It may be accompanied by a head noun also with /-/yi8/ and/or with particle /-/yun/ /'like' (§12.13). The exx. in NMET (total: 3) are 10.12.6 /n-/-yi8/ /-yungu:/ (Prox DemPro, ANA class) has Punctual prefix as often with Similative case suffix; 43.17.2 /an-/-yin:un/ (§7.25) n=a-yana-na n=a:magi=-/-yi8/ [they told us their traditions] of this sort, [as] I do this, like I am speaking[repeating]', where /-/yi8/ might have been added to both verbs but was in fact just added to the last one; and 115.3 /-yun:ju a:-/-ni:-yi8/ nuru:-bura:-yi8/ [we lived along the coast (like the people here)] just as we are sitting[living]'. In the last ex. we could also plausibly construe the meaning as '[we lived along the coast] just as we are sitting[living] here', so that the DemPro a:-/-ni:-yi8/ (which also shows Similative suffix) might be taken as an instance of Pred-to-HP case-spreading within the near-eliminated clause. In addition to the 3 NMET exx. we can cite TNT 5 line 5 /-yun:ju n=irianwann=n-a:-yi8/ [the rod on grass] just as we [might] tread on it'.

Our overall conclusion is that the case suffixes treated in this section are not very common as subordinators, in contrast to the more common Relative /-/yin:un/ (§16.6) and Purposeful /-/yun:guyun:/ (§16.5). Moreover, the essentially temporal relationships indicated in Table 16-1, above, are not the only glosses possible for those suffixes as subordinators, and indeed the glosses shown each apply to a relatively small number of actual textual exx. When the case suffixes of the current section do occur as subordinators, in some instances we are really dealing with head-to-Rel case spreading or with (in a handful of instances) a similar spillover process not strictly involving logically relative clauses. These cases where the subordinator (especially Locative, Originative, and Similative) has a sense similar to its regular sense as nominal suffix.

16.7 Conditionals.

A conditional construction consists of an 'if'-clause or protasis and a then'-clause, or apodosis, containing the proposition which is consequent on the truth of the protasis. The apodosis can, in some cases, be regarded as the matrix (main) clause while the protasis is subordinated to it. There are two basic types of conditional construction: hypotheticals ('if he comes, I'll see him') and counterfactuals ('if he had come, I'd have seen him').

In the less common counterfactual type, the protasis and apodosis are formally parallel, with the protasis normally preceding the apodosis. In both clauses the predicative nucleus is in Past Potential inflectional form (§8.6), or the equivalent for predicative NAdj (i.e., with B series prefix, §8.2). The postposition /-/maga:/ (§12.21) is commonly, but optionally, added to the second clause in the protasis and/or apodosis, most often the predicative nucleus itself. Textual exx. are 120.6.1-3 '(if that had gotten into their eyes, they would have been permanently blinded), they would not have been able to see' with /-/maga:/ on 'permanently' (predicative NAdj) and on /-/yungu:/ (negative used with Past Potential Negative at end) and 161.32.2-3 '(if they had done that [helped with building], these houses would have been big') with /-/maga:/ this time on the protasis verb. These are particularly the only exx. in NMET.

The hypothetical type is much more common. Usage is fairly broad, and the English translation may be with 'when' as well as 'if' ('when he comes, I'll see him') as long as the reference is to
a future (hence hypothetical) event; exx. involving the 'when' translation include 4.7.1 and 65.13.3. There is a postposition /-maji:/ 'if, when' which is found on one or more words in the protasis, but not in the apodosis.

Usually, in the hypothetical type both the protasis and apodosis have predicative nuclei in Future form (Future Punctual Positive, Future Continuous Positive, or Future Negative). As noted in §8.5, Future forms may also be used as imperatives, and the apodosis (but not protasis) may be pragmatically an imperative or suggestion, as in 4.7.1 (‘when you reach the people, shake the rope’), cf. 65.13.3. The aspect (Punctual, Continuous) and negativeness of the protasis and apodosis are independent of each other. For ex., we have an aspect change in 90.1.4-6 (‘...if he spears [Pun]; and the policeman dies [Pun], from there they will come [Con]’). The combination of positive protasis and negative apodosis is found in 94.1.1-6 (‘if he dies... , they will not bury him anywhere else’), cf. 67.3.1 and other exx.; negative protasis and positive apodosis is found in 63.1.4-5 (‘if the wind is not blowing, they go and talk to the two old men’).

As cited also exemplifies the occasional use of Present (here Present Positive) instead of Future in the apodosis, since the situation described here is a habitual one. (The protasis in the ex., however, is Future Negative, reflecting the strong tendency to prefer Future forms even when Present forms are logically possible in the protasis.) The only instances of Present protasis in conditional in NMET are 68.2.4 (‘if we want the old [versions of] the songs, we sing the old ones’) with apodosis Present Positive too, 115.1.1 (‘if they want these [nuts], then they’ll have a party’) with Present apodosis, and 54.1.1ff. (combined prepositional). We conclude that Future is strongly preferred in the protasis, and only slightly favoured in the apodosis, in contexts where either Present or Future would be possible. (Note that “Future” as a category has a more hypothetical/potential nuance in Nunggubuyu than in English, Chapter 8.)

The protasis has a simple noun as predicative nucleus in 42.6.1 (‘if [there is a] dugong’). The protasis has a predicative NAdj in 40.1.4/5 (‘if he is absent’) and again in 49.2.5; perhaps we should take the form in 103.2.5/6 involving the loanword good-tucker ‘good food’ in the same way although the loanword takes no pronoun prefix. (-/maji/) in 84.1.4 probably represents an incomplete sentence rather than a noun as predicative nucleus.

We now give complete lists of conditionals (hypothetical) with /-maji:/ in NMET. With Future Punctual Positive we have 4.7.1, 13.33.2, 22.1.6, 47.22.1 (two), 94.1.1ff. (four including repeats), 65.3-5, 63.4-3, 65.13.3, 67.3.1, 78.1.2 (four including repeats), 79.1.1/4 (three), 80.1.1 (three), 80.2.2 (two), 80.2.7, 83.1.2/4, 89.1.1/3/4 (four), 90.1.3ff. (four). With Future Continuous Positive we have 42.5.4, 47.22.1/2, 49.2.1, 61.1.4, 62.1.7-8, 65.13.2, 67.2.5, 67.3.1, 68.4.4, 75.1.5, 75.2.4, 76.2.1/7, 77.1.4-5, 88.3.2, 90.1.5-6 (two), 90.2.2, 103.13.1, 157.7.2, 165.1.2/4. 1 could be 42.11a (27 instances of /-maji:/ in clause with Future Punctual Positive vs. 23 with Future Continuous Positive, but the

We conclude that Future is strongly preferred in the protasis, and negative apodosis is found in 63.1.4-5 (‘if he doesn’t come, we’ll go ahead and eat’; ‘if he gets sick, we won’t leave the house’). In such clauses, the regular syntax of negation (§5.6) including the rigorous usage of Continuous forms of NCInf prefix for all morphological nouns, is applicable. The predicative nucleus takes the same negative form that it would have in a main clause.

Since the protasis and apodosis are syntactically quite separate, negation in one of them has no formal effect on the other. Thus, exx. cited earlier where either the protasis or the apodosis (but not both) are negative, the predicative nucleus of the negated clause takes its regular negative form, but that of the positive clause takes its regular positive form. All this is as we would expect.

However, in addition to this there is a general rule that a ‘positive’ hypothetical protasis, a “positive” counterfactual protasis, and (often) a “positive” counterfactual apodosis, counts as a negative context (§5.6) for purposes of NCInf morphology (§4.8). In other words, although the predictive nucleus takes its regular positive form, the nouns (including adverbs) and DemPro in the apodosis must have Continuous NCInf form. (In positive clauses in nonconditional constructions, nouns and DemPro may take Punctual prefix form or may omit the prefix under some conditions, §4.8.)

The statistics are misleading in that the numbers are inflated somewhat by the existence of passages with several occurrences of /-maji:/ in a repetitious protasis string. Future Negative is found in 62.1.2/3 (five times), 63.1.4, in a false start in 89.1.2, and in 89.1.6, for a total of 8 instances in NMET (including five in one short sequence). In the Future Negative /-maji:/ is added to the negative particle /-ga-/ rather than being added to the accompanying verb.

Following up the last remark, we may say that the location of /-maji:/ in a multi-word protasis clause is somewhat variable when no internal negative element is present. In most cases, /-maji:/ in positive protasis is added to the predicative nucleus and/or to a clause-initial noun, DemPro, or pronoun (‘hown’ here includes most adverb-like elements). Exx. of non-verb constituents which show up with /-maji:/ are DemPro /nu/-'ba-gi-yu/[ng]-maji:/ ‘if that [man]’ 54.1.1 and elsewhere, DemAdv /ana/-'ji/-la-maji:/ ‘if along this side’ (§7.21) in 62.5.3, personal pronoun /ni-ga-maji:/ ‘if he’ 78.1.5, and noun /ana-wun/-ari-maji:/ ‘if fighting’ 83.1.2; in these instances the accompanying predicative nucleus (may or may not also have /-maji/) there being no fixed rule on whether such repetition of /-maji:/ will occur. Exx. of multiple usage of /-maji:/ within the same clause (whether or not we have actual repetitions of a single word having /-maji/) are 78.1.2ff. and 90.1.2ff.

However, repetitions seem to be more characteristic of hesitant, somewhat broken passages where the speaker needs to keep using /-maji:/ to ensure that the addressee understands the logic of the passage correctly. Exx. of /-maji:/ on a nominal in the clause, after not being used on a preceding constituent, are 13.33.2 and 22.1.6, among others.

The most interesting syntactic aspect of conditionals is their relationship to negation. As we have seen, the protasis and/or the apodosis of a conditional may have an overt negative (‘if he doesn’t come, we’ll go ahead and eat’; ‘if he gets sick, we won’t leave the house’). In such clauses, the regular syntax of negation (§5.6) including the rigorous usage of Continuous forms of NCInf prefix for all morphological nouns, is applicable. The predicative nucleus takes the same negative form that it would have in a main clause.

Since the protasis and apodosis are syntactically quite separate, negation in one of them has no formal effect on the other. Thus, exx. cited earlier where either the protasis or the apodosis (but not both) are negative, the predicative nucleus of the negated clause takes its regular negative form, but that of the positive clause takes its regular positive form. All this is as we would expect.

However, in addition to this there is a general rule that a “positive” hypothetical protasis, a “positive” counterfactual protasis, and (often) a “positive” counterfactual apodosis, counts as a negative context (§5.6) for purposes of NCInf morphology (§4.8). In other words, although the predictive nucleus takes its regular positive form, the nouns (including adverbs) and DemPro in the apodosis must have Continuous NCInf form. (In positive clauses in nonconditional constructions, nouns and DemPro may take Punctual prefix form or may omit the prefix under some conditions, §4.8.)
There are enough hypothetical conditionals in NNET to make statistics useful in demonstrating this point. Counting only nouns and DemPro which are clearly in the scope of a hypothetical protasis with overt marking by /-majii/, I count 35 instances of Continuous prefix with nonhuman noun, and zero instances with Punctual or with other conjuncts. For human nouns which merge Continuous and Punctual prefixes into a single NInf series, I count 43 instances with prefix, and zero without prefix.

These figures are particularly striking for the nonhuman cases, which include many DemAdv which are generally in unprefixed form in (nonconditional) positive clauses. Exx. in positive hypothetical protasis are /an-ubu-guni/ to there' 22.1.5 (usual form /bu-guni/ §7.13), /an-ubu-guni/ to there[Dist] 65.12.3, 79.1.3, 90.1.5, 68.4.4 (usual form /yu-guni/ §7.13), and /an-uma-ga:-'la/ from there[Dist] to here' 75.1.6, 78.1.6, 88.3, 90.1.6, and 90.2.2 (usual form /yu-ga:-'la/ §7.15).

We do not have enough exx. to be statistically sure, it seems that a Relative clause (§16.4) referring to or at least favours Continuous forms of the NInf prefix. The relevant ex. in NINET is 54.1.4-5 where a Rel clause of the type 'the lawman who holds the law' (traditional), camp songs, and /madayin/ ritual is also the subject of a hypothetical conditional protasis 'if dies' (see §41.3). The nouns acting as direct objects of the Relative clause ('law', 'camp songs', 'madayin') take Conditional prefix /ana:-/.

This is at least consistent with the view that 'negative scope' extends from a higher clause into a Rel clause for purposes of NInf prefix-form choice.

Hypothetical apodosis nouns do not require Continuous prefix forms in cases, hypothetical apodosis clauses are formally identical to ordinary main clauses (Present or Future). Exx. of unprefixed forms of nouns and DemPro in the apodosis are 62.5.3, where the DemAdv for [along] this side' shows up as Continuous /ana:-'ji:-'la/- before /-majii/ in the protasis but as ordinary unprefixed /ya:-'ji:-'la/ in the following apodosis, also 75.1.6 /ya:-'ni:/ (fighting'), etc.

Our statistics above refer only to nouns (and DemPro) which are "clearly" in the scope of a protasis with /-majii/ . It is necessary to point out, however, that the scope of a conditional protasis may be more fluidly bounded than is the case with genuine ( overt) negation. In the case of negation (§15.6), a single negative element may have an extended scope comprising more than one predicate, but the logic is categorical—a given proposition must be interpreted as being either positive or negative. In the case of conditionals, there may be spillover between the protasis ('if when X') and a more general, nonconditional background-information discourse chunk. We therefore find in the texts occasional instances where what begins as an overt conditional protasis is continued and elaborated by clauses in which /-majii/ is absent, or conversely where one or more "main" clauses describing background are suddenly rephrased as conditional protasis clauses. The point here is that not only does this shifting between protasis and "main" clauses involve presence or absence of /-majii/ , it may also involve turning on and off the "negative context" status of the clauses. We may illustrate this with two passages. First, in 47.1.1-3 we have this sequence; /if I go off course, if I speak, [if] I speak and go another place, I will get the words wrong/. The underlined sequence seems to be merely a paraphrase of the preceding conjointed protasis clauses, /-majii/ /-majii/ , and the word /to another place/ shows up as /ana:/ with /-majii/ . In 79.1.1-5 we have what is basically a string /-majii/: present in lines 1 and 2 and then reappearing at line 5. It appears to lapse, so we get DemAdv form /yu-ga:-'la/ from there[Dist] and noun /a:-'nYbaj-gala-ga:-'ya:/ from another[place] to another[place] and the latter forming no prefix and the former having a Punctual prefix. However, the speaker breaks off this sequence and begins the clause again at line 5 with /ana:/ with /-majii/ and with Continuous NInf prefix form.

Despite this, in some other passages a single /-majii/ seems to operate logically over a sequence containing more than one predication, with the "negative context" applying as well. For example, in 75.1.5ff. we have /if he comes from there [and/or if] face, she should turn her face away/. Here only the last clause is extended protasis. However, only the first of the three has /-majii/ ; the other two conjointed clauses all adverbs take the Continuous prefix form (which is otherwise normal). Likewise, in the next protasis ('[if] she goes and if she sits there'), where /-majii/ extend backward to the 'go' verb logically. (A further complication is that occasionally we can have what looks logically like a conditional construction, but with no /-majii/; as in 13.11.3-4.)

The regular order of clauses in a conditional construction is factored. There are a few textual exx. where one might argue that a is a way to construe the passage with protasis first. Thus in 75.1.5ff. we have /if he comes from there [and/or if] face, she should turn her face away/. Here only the last clause is extended protasis. However, only the first of the three has /-majii/ ; the other two conjointed clauses all adverbs take the Continuous prefix form (which is otherwise normal). Likewise, in the next protasis ('[if] she goes and if she sits there'), where /-majii/ extend backward to the 'go' verb logically. (A further complication is that occasionally we can have what looks logically like a conditional construction, but with no /-majii/; as in 13.11.3-4.)
Aside from simple repetitions of a protasis (which are fairly common), we also have cases where two or more clauses are combined into an extended protasis; the clauses (i.e., predication--see §15.5 for the problematics of defining "clause" rigorously) may be

semantically conjoined ("if X and Y"), disjunctive ("if X or Y"),
or may be related to each other as paraphrases or elaborations.

Usually the clauses in question are simply juxtaposed to each other; /-majh/ may occur in each protasis clause or may be omitted in

some of them; we have already discussed some exx. of this general

16.8 'to want' construction.

A verb /-maw�/ 'to want, to like' occurs fairly often in the

texts as a simple transitive verb with a nominal object, as in

47.3.2, 47.5.3, 65.5, 69.4, 5.10.7, 47.2.4/ and for case

47.2.4/ and 47.6.1. The object is often human, in which case the

sense is usually 'to love, to be fond of', though not usually in a

romantic sense.

As was the case with neighboring languages, it was possible to
elicit a 'to want' construction with clausal complement. It should
be stressed that this construction did not show up clearly in any of
the texts. The construction is therefore at best of low productiv-

ity. Since it was elicited through English-to-Nunggubuyu trans-

lation sessions, it is possible that the construction is a calque

obtained artificially. In retrospect, the same remark might.

be made about corresponding constructions in Yugu and other

local languages. On the other hand, the Nunggubuyu construction was
elicited without difficulties from several informants, who gave

fairly consistent judgements on grammatical details.

For what it is worth, the elicited construction was of the

type 'I want X' (i.e., a regular transitive surface clause) followed

by another main-like clause acting semantically as the complement.

There was no conjunction or formal subordinator. The X acting as

surface direct object of 'to want' was either a duplicate of a NP

with an argument role in the 'complement' clause, or a dummy 3rd

person noun-class marker (ANAw CLASS). If we assume that the under-

lying structure is of the type 'I want [NP, Verb NP]', (NP, subject

and NP, indirect or direct object of the complement 'clause' verb),

so that 'want' in the matrix verb must get a surface same-clause
direct object by copying or dummy-insertion, the rules are these in our

elicited data:

a) intransitive "complement" (no direct/indirect objects)

1) X = copy of complement subject if noncoreferential
   to subject of 'want'

11) otherwise, X = dummy ANAw pronominal

b) transitive "complement" (direct and/or indirect object)

1) X = copy of complement subject if noncoreferential
   to subject of 'want'

11) otherwise, X = copy of object, with preference to
direct object (including noncross-referenced patient).
In most of the elicited exx. the copied "NP" had the form of a
pronominal element only, in both 'to want' and complement clauses.
When a copied NP showed up as an independent noun or other indepen-
dent element, the independent form could show up in either clause,
so far as could be determined. However, in some instances the two
clauses were not sharply bounded (e.g., by intonation and/or pause)
and it was difficult to determine where the non-verb constituents
belonged. In addition, postposed afterthought NPs, and preposed
topical NPs (§17.7) are very common in Nunggubuyu, and perhaps we
should not read too much about syntactic bracketing into surface
word-order relationships.

16.9 Rough equivalents of English matrix verb with complements.

In the preceding sections in this chapter we have described, among
other things, the productive subordinated clause formations of
Nunggubuyu. We have made some remarks about Nunggubuyu counterparts
to some English complex constructions. It remains here to give
additional details about approximate Nunggubuyu translation
equivalents of other English constructions involving a matrix-clause
verb taking a clausal complement.
a) to try. There is no direct syntactic counterpart of English
'He tried to swim', 'He tried to kill me'. There are, however, some
recurrent constructions which have roughly the same effective sense.
In 16.9.3-4 we have a sequence 'I-would-break-it-of'/
'suddenly again, I-failed' (i.e. I was on the verge of [being able to]
brake it, but couldn't'; 'nearly' is a contextual gloss here for
/lha:lhag/ 'recent, near in time'). The first verb is in Past
Potential form. Instead of the explicit verb 'I-failed' the speaker
could also use just the negative particle /girjag/ '/no:/
(§15.6). Another way to translate 'to try' is to use the particle
/yin'ga/ (§12.7) indicating in this case apparent imminence of some
event. In 16.9.4-3 we have the sequence /yin'ga vir-xamgi-m
/nala girjag/ 'virtually they-pulled-themselves-out and no!' (i.e.,
they tried and failed to extricate themselves'), with Past Punctual
Past Potential) clause but th'
/\=in\^2ga/- 'to finish, complete' at the end, taking a nominal direct object rather than a clause complement. The other relevant verb, /\=aja-/ 'to cease [activity]' is an intransitive verb but is used in much the same way, hence 5.20.6-7 'he was burning her all over [reduplicated] he ceased'. The two clauses are really conjoined, with the first describing the activity in progress (rather than being a mere clause complement indicating what activity was stopped).  

When referring to the onset of an extended activity, a Nunggabuyu /\=aja-/ 'to cease [activity]' is an intransitive verb but is used with an object rather than a clausal complement. The other relevant verb, /\=in\^2ga/-, in much the same way, hence 5.20.6-7 'he began to work' is very difficult to translate. When referring to the onset of an extended activity, a Nunggubuyu speaker may simply use a Punctual aspect form of the relevant verb. Text A (Chapter 17) has some exx. involving 'to paddle'. In some contexts the use of particle /\=araga/- 'suddenly' with an activity verb may approximate the English 'to begin', and even the more mundane particle /\=adaba/- 'now, then' may serve the same purpose because of its event-bounding characteristics (§12.3, §12.7).

Semantically negative counterparts are expressed by similar constructions involving /\=malali:di/- 'ignorant' or /\=ambadhi/- 'unaware'. These /\=NAdj, however, do not take directly subordinated clausal complements. When the thing known or not known is an event rather than a named entity (such as a language or song), we get each passages as this: 'we[1,e., the Nunggubuyu and another group] were spearing each other, some were throwing [spears] from that side and others from this side, [but] I was unaware of it [since I was on the beach] 161.4.3ff. As in other exx. we have seen (with 'to refuse', 'to forget', 'to stop'), the 'complement' is really a quite independent main clause; the 'to know' predicate presupposes this information but is not syntactically superordinated to it.  

k) to warn, to threaten. Direct quotations including a clause in Evitative form (§8.7) expressing the undesirable consequences (§5.20.6-7). Semantically negative counterparts are expressed by similar constructions involving /\=malali:di/- 'ignorant' or /\=ambadhi/- 'unaware'. These /\=NAdj, however, do not take directly subordinated clausal complements. When the thing known or not known is an event rather than a named entity (such as a language or song), we get each passages as this: 'we[1,e., the Nunggubuyu and another group] were spearing each other, some were throwing [spears] from that side and others from this side, [but] I was unaware of it [since I was on the beach] 161.4.3ff. As in other exx. we have seen (with 'to refuse', 'to forget', 'to stop'), the 'complement' is really a quite independent main clause; the 'to know' predicate presupposes this information but is not syntactically superordinated to it.  

m) to think. For 'He thinks that...' see end of §16.3, the exx. being those with /\=am=jama/-.

Although the "complement" clause (i.e., the proposition believed) is expressed as a separate clause with no subordinators, some indirect-discourse pronominal substitutions occur. (Unfortunately, the exx. in the texts involve nonverbal complement predications of the type 'He thought it [was an] X', so we do not have any exx. involving a fully inflected predicative nucleus.) The type with /\=am=jama/- is only moderately common (two occurrences in NMST), and usually involves mistaken identifications. A more general 'to think' construction is the direct (mental) quotation, with optional quotative framing verb /\=yama/-.

n) to ask. In the sense 'to enquire' the verb is /\=jukwika/-, usually cpx. /\=yan=\=jukwika/- 'to enquire [verbally]'. This regularly follows a direct quotation. Actually, since the direct quotation should already be interrogative in form, one can omit the 'to enquire' framer, or replace it with the more neutral quotative framer /\=yama/-.

c) to say. Direct quotation (for intonation see §17.4) with optional but frequent quotative framing verb /\=yama/- 'to do thus', as in /\=ni=yama-n/- 'he did thus, he said'. See §16.3.

p) can/could. Regular Future or Past Potential verb form.

q) should/must.
Chapter 17

Functional systematics
(text analysis)

17.1 General.
In this chapter we try to bring together the discourse-controlled morphological and syntactic facts which have been scattered through several preceding chapters, and try to show how these diverse elements function together. In addition, we try to show some ways in which intonation operates in discourse. Although we will make some remarks about middle- and higher-level discourse structures, our main interest here is how discourse and basic grammatical features interact.

To this end, in this chapter we present (below) a schematic "English" translation of Text A (actually, Text 16 of NMET), a myth narrative. Readers should go over the remarks in §17.2, then go through the text schema before continuing with §17.3ff.

17.2 Remarks on "Text A."
A brief synopsis of the events in this text:
#3-114: A man M coming from Groote Eylandt going southward along the coast has trouble finding a spot where he can catch big fish; after straying into distant territory he finally catches some big fish;
#115-119: M goes on shore and builds a fire to cook the fish;
#119-141: A local man W notices the fire, sings a clan song about northeast wind, goes toward the fire, and briefly presents himself to M;
#142-170: M flees and tries to hide, but farts, attracting a swarm of flies; W finds M by noticing the activity of the flies, sneaks up to M, attacks M with an axe and eats him;
#171-181: Two wives [apparently of W] are not far away with their children; they observe W belching profusely and wonder what he has killed and eaten;
#182-225: A large search party including M's relatives from Groote Eylandt come, find M's blood, track W down by following the smell of the belching, and trap W by setting a ring of fires which close up around him; W sings his northeast-wind song again;

§17.1, §17.2
The two wives echo W's song and refer to the arrival of the search party; the two wives clear some ground (for ritual dancing) and begin performing the circumcision ritual in the presence of the arriving search party;

W, the two wives, and their children die in succession as their bellies explode.

The following "English" translation given here is based word-for-word on the Nunggubuyu; each Nunggubuyu word in the original is represented by one English word (though by "word" here we may mean a hyphenated chain like he-kept-going). The "morphemes" separated by hyphens in an English "word" usually do not correspond directly to Nunggubuyu morphemes (in meaning, order, or even number). The schematic "English" version of the text is therefore mainly useful for syntactic and discourse rather than morphological analysis. For a more idiomatic English translation see NMET, pp. 108-117.

Each string constitutes an intonational or breath group; i.e., is normally followed by a brief pause. Each string has a numeral (#1 to #253) shown on the left. We have also listed as distinct strings the components of lists and other series (e.g., #45-50 and #30-34) even when there is no pause or intonational break.

Brackets on the far left combine from one to about ten strings into groups. As we will see shortly, this level of structure is only loosely definable and the presentation given here is partly arbitrary (one could, for example, show higher-order groupings as well by combining bracketed groups into larger sections). Within a group we progressively indent new strings by two spaces, except that strings forming lists or other series are exactly aligned with each other. (Note that some strings spill over into two or more typed lines because of their length; spillover lines are more being indented two spaces from the applicable left margin.)

Underlining is used to indicate high monotone (HM), an intonation used chiefly in repetitions and some other backgrounded strings; see §17.4, below. It is also used for a couple of song fragments. Double underlining is used for quotation intonation (Qu), essentially using a higher baseline pitch but with rises and falls rather than monotone, and usually with rapid speech rate as opposed to the drawn-out articulation in (some instances of) HM.

CAPITALS are used in the "English" version of Text A not to designate a particular intonation, rather to indicate primary event predication. This is a somewhat loosely definable discourse category, intended to put the spotlight on verbs, each of which describes a new instance of the relevant action.

Some subscripts are used in the text. Some merely index a grammatical category (see list at end of text). Note, though, that beginning with #121 we use m and w with third person pronouns to index referents (to distinguish protagonists, M and W). (Actually, both protagonists have names beginning with /w/ in this text, but the first has another name with /m/ and we base the index on this.)

To the right of the strings, we have symbols indicating the terminal pitch pattern of the string. Grave accent ` indicates the most common (unmarked) pattern, falling pitch, indicates falling-then-rising pitch (the contour may involve the final two syllables or just the final syllable). HM indicates that high monotone continues to the end of the string, though it should be noted that some strings begin with HM (shown by underlining) but end with `. L indicates list intonation (#17.4), and Qu quotative intonation. Er indicates that the string was broken off, as in a false start or otherwise self-repaired formation.

The following "English" expressions are used systematically to index the Nunggubuyu elements paired with them below:

<table>
<thead>
<tr>
<th>English expression</th>
<th>Nunggubuyu equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>and1</td>
<td>/n6a/ §12.4</td>
</tr>
<tr>
<td>and2</td>
<td>/m91/ §12.4</td>
</tr>
<tr>
<td>again</td>
<td>/n13jan/ §12.6</td>
</tr>
<tr>
<td>do-thus</td>
<td>/wama-/</td>
</tr>
<tr>
<td>kept-[VERB-jing]</td>
<td>Reproduction by P-2, §8.4, §3.3</td>
</tr>
<tr>
<td>no:</td>
<td>/gir/jag/ §15.6</td>
</tr>
<tr>
<td>now</td>
<td>/ada/ or /a/ §12.3</td>
</tr>
<tr>
<td>oops:</td>
<td>/gawd/ §12.19</td>
</tr>
<tr>
<td>-still</td>
<td>/gir/g/ §12.21</td>
</tr>
<tr>
<td>suddenly</td>
<td>/gawg/ §12.27</td>
</tr>
<tr>
<td>whatchamacallit?</td>
<td>(/wain/) §13.10</td>
</tr>
</tbody>
</table>

Especially with demonstratives (1mm, Dist, Anaph) and gender and number (FDu, M8, etc.), we sometimes indicate additional grammatical categories in brackets.

It is suggested that readers now work through Text A once or twice. Further discussion of this text is given in §17.3, below, and in other succeeding sections of this chapter.

17.3 Information units in Text A (Echoes, Rephrasings, etc.), It can be seen that neither the numbered strings (#1 to #253) representing intonation/breath groups, nor the bracketed groups of strings (see §17.2, above, for definitions of "string" and "group"), correspond exactly to information units.

In #3 to #114, there is a recurrent cycle of elements (with many variations) as shown in Figure 17-1.

---

Figure 17-1

- to paddle
- [arrive at] PL
- to fish
- [fish are] small
- to move
- to hook
- (motion)
- (action)
- (attempt)
- Event
- Focus
- Loc

Neg

no:

Result
ill

[1. another[MSg]]

[2. I-will-tell-you]

[3. HE-FISHED]

[4. [man's n.]]

[5. he-kept-killing-them, crane]

[6. from-there, AXI, from-Groote-Eylandt, p]

[7. he-kept-killing-them,]

[8. now canoe'd indeed canoe'd]

[9. HE-PADDLED]

[10. he-kept-going, he-kept-paddling, PL-4]

[11. he-paddled, and 1 no: it-was-small]

[12. they-were-small]

[13. again HE-MOVED, to-there to-PL-2]

[14. PL-1]

[15. he-kept-paddling,]

[16. PL-3]

[17. HE-FISHED]

[18. he-fished, and 1 no: they-were-small]

[19. again HE-PADDLED]

[20. to-there to-PL-2]

[21. he-kept-paddling, PL-4]

[22. HE-FISHED]

[23. and 1 no: they-were-small]

[24. HE-GOT-UP]

[25. he-kept-going,]

[26. PL-4]

[27. HE-FISHED]

[28. he-fished, and 1 no: they-were-small-still]

[29. HE-GOT-UP]


[31. HE-HOOKED-IT, [it-was-small]]

[32. HE-HOOKED-IT, [it-was-small], (pause)]

[33. HE-HOOKED-IT, [it-was-small]]

[34. and 1 no: they-were-small-still]

[35. HE-PADDLED]

[36. to-there to-another[-place],]

[37. PL-6]

[38. PL-4]

[39. HE-FISHED]

[40. he-fished, and 1 they-were-small-still]

[41. go:[root form.]]

[42. again he-went, PL-7]

§17.3 Text A

[43. HE-FISHED]

[44. he-kept-them, HE-HOOKED-THEM, and 1 they-were-small-still]

[45. fish-sp.-1]

[46. fish-sp.-2]

[47. whatchamacallit]

[48. fish-sp.-3]

[49. fish-sp.-4]

[50. whatchamacallit]

[51. he-hooked-them, and 1 suddenly small-still]

[52. again HE-PADDLED]

[53. PL-6]

[54. HE-FISHED]

[55. they-were-small-still]

[56. again HE-PADDLED]

[57. PL-10]

[58. HE-FISHED]

[59. they-were-small-still]

[60. again HE-MOVED]

[61. PL-14]

[62. HE-FISHED]

[63. they-were-small-still]

[64. again HE-MOVED]

[65. PL-12]

[66. HE-FISHED]

[67. and 1 they-were-small-still]

[68. again HE-PADDLED, and 1 PL-4] oops: whatchamacallit?

[69. PL-13]

[70. HE-FISHED]

[71. and 1 they-were-small-still]

[72. again HE-MOVED, he-kept-paddling, and 1]

[73. PL-14]

[74. HE-FISHED]

[75. and 1 no: they-were-small-still again]

[76. PL-15]

[77. HE-FISHED]

[78. "to-there? I-will-go to far-side"

[T/I., he decided to go around to far side]

[79. HE-MOVED]

[80. PL-16]
(Text A, cont.)

[81. he-FISHED]
[82. and no [they-were]-small-still
[83. HE-ENCIRCLED-ISLAND and,]
[84. whatchamcallit?
[85. dangerous-island that[Anaph]p
[86. HE-FISHED, and no
[87. [they-were]-small-still and, HE-MOVED,
whatchamcallit?
[88. HE-FISHED]
[89. and no [they-were]-small
[90. "I-will-go-across"
[91. to-PL-18¢
[92. to-PL-18¢
[93. now HE-WENT-ACROSS to-PL-18¢
[94. he-kept-paddling" and,]
[95. PL-18¢
[96. HE-FISHED]
[97. now [they-were]-quite-big
[98. again HE-xxx whatchamcallit?
[99. PL-19¢, he-FISHED
[100. now [they-were]-big
[101. again HE-PADDLED and, PL-20¢
[102. HE-FISHED
[103. now [they-were]-quite-large
[104. HE-KEPT-DOING-THIS, and, PL-22¢
[105. HE-FISHED
[106. now [they-were]-big
[107. HE-KEPT-DOING-THIS, and, PL-22¢
[108. HE-FISHED
[109. now [they-were]-huge
[110. HE-WENT-ACROSS
[111. HE-WENT-ACROSS, PL-23¢
[112. HE-FISHED, now [they-were]-[big
they-abounded[?] parrotfish,]
[113. from-there[Anaph], HE-PADDLED, PL-24¢
[114. huge-ones, now he-fished, HE-ROOKED-THEm
there[Anaph] he-kept-fishing,
[115. now HE-MADE-FIRE there[Anaph]
[interruption as narrator addresses comment to passerby]
[116. HE-BUILT-UP-FIRE,
[117. he-kept-making-fire,
[118. he-kept-cooking-them
[119. he-kept-making-Fire, and, now
HE, i.e. W]-SMELLED-FIRE
[120. from-PL-25¢
[121. W[man's n.] I

[Note: To distinguish M, see #4, from the new actor W, see #121, we will henceforth index M as m and W as w.]

[122. [imitation of fire cracking]
"someone-is-intruding-in-my-country"
[123. northeast-wind i-ran-to-1¢, p
[124. from-PL-26¢, from-PL-27¢, from-PL-28¢,
[125. "[wind]-made-me-aware, [I-became-aware, "[wind]-hit-my-head
[126. northeast-wind[echoes]
[127. northeast-wind[echoes]
[128. he, said-thus
[129. this c it northeast-wind,
[130. he, kept-saying-thus,
[131. now he, HE-CHASED-FIRE, now
he, kept-chasing-by-smell, c
[132. he, kept-chasing-by-smell, c
[133. he, kept-chasing-by-smell, c
[134. he, kept-chasing-by-smell, c
[135. he, kept-chasing-by-smell, c
[136. he, kept-chasing-by-smell, c
[137. now he, locked and he, [was-]that[Ima]
HE, CAME-OUT, p
[138. he, came-out p
[139. [it's]-[Emph] just this,
[140. "[it]-[Emph] just this,
[141. he, said-thus,
[142. [echo]
[143. he, RUSHED-AROUND, he gave him-[a-look]
[144. he, rushed-around, he gave him-[a-look] p
[145. he, hid-behind-[tree]
[146. he, ran,
[147. he, ran,
[148. he, ran,
[149. he, ran, and there[Dist] HE, HID-IN[tree]p
[150. M[name]
[151. he, hid-in[tree]p
[152. he, hid-in[tree]p
[153. [echo]
[154. he, hid-in[tree]p
[155. "[echo]
[156. again and --
[157. [echo]
157. they-smelled-his-excrement-p files
158. [he-m-farted] and1 in front-of-those[Anaph] from-W Event
159. they-did-thus, they-went-in-curve_p
160. now they[files]-were-visible_c there[Anaph]_c
161. the-they-did-thus, they-went-they-stood-broadside_p and1
162. [they[files]-SWARMED] AT-HIM_m-c Reason
163. they[files]-were-visible_c Event
164. suddenly to-there[Autaph]-still they-DARED-SWARM-STILL_c Event
165. he-was-crouching_c they-kept-doing-thus_c
166. they-kept-doing-thus_c PL- 2 3 c
167. they-kept-doing-thus_c PL-18 c
168. they-searched-for-him_m
169. they-said-thus c and1
170. he-was-jailed to-it-killed-him
171. babies and2 two-wives
172. now he-MOVED
173. he-kept-going_c and3 he-SAT-DOWN_p
174. there[Dist] in-east[rdp.]
175. [he-w-chopped-him-m-p, now]
176. [he-w-lifted-him-m-p]
177. [he-w-chopped-him-m-p, now]
178. [he-w-swallowed-p]
179. as-for-them[people] PL-29 they-sat_c
180. they[FDu]-said-thus,
181. [continuation of belching, etc.]
182. they[people]-GOT-GETHER_c
183. they[people]-got-together, people
184. they[people]-got-together_c
185. they[people]-got-together_c
186. now they[people]-SEARCHED-FOR-HIM_m-p
187. islands[Collective] they-did-them[islands]p
188. of-Groot-Eiland, Antindivudual[people]
189. clan-m, whatchamacallit
190. they-searched-for-him_m-p
191. [they-kept-doing-thus, PL-17]
192. [they-kept-doing-thus, PL-16]
193. [they-kept-doing-thus, PL-23]
194. PL-29
195. THEY[people]-LOOKED, and of-it-killed-him_m-c
196. his-mark-lay_c of-it-killed-him_m-c
197. "oops! [it-is]-that[Imm] it-killed-him yes/no?"
198. they-sewed
199. they-did-thus, they-went-in-curve_p
200. in-west they-stood-broadside_p and1
201. they-nosed_p
202. [noise of belching, stomach gas, cf. #175]
203. of-he-belched_p and1
204. he-smelled_p
205. he-stank_p
206. and2 and, fire
207. in-east now they[people]-RUSHED_p
208. they-lit-fire_p, whatchamacallit? PL-34
209. from-there[Anaph], they-lit-fire_p, PL-32
210. "correction"
211. PL-33
212. PL-34
213. from-PL-33, from-that[Anaph],
214. of-him, PL-34
215. and to-PL-34
216. they[people]-GAVE-EACH-OTHER_p,?
217. ring[of fires] p
218. they[fires]-were-joined_p
219. they[people]-LET-THEM-STILL_c
220. "someone-is-intruding-in-my-country_p
221. from-PL-29
222. "it's-you-on-head_p"
223. "it's-it-on-head"
224. he-said[sang]-thus_c
225. "it's-it-on-head"
226. [pitch fairly high] HM/Br Quotation[W]
227. "it-is-that[Imm] and, [pitch very high]
228. [it-is-that[Imm] and, it-hit-you-on-head, Qu Qu"
229. two-wives they[FDu]-said-thus_c
230. xxx they[people]-PASSED-BY_p
231. they[people]-walked-by, and2 and1
232. from-there[Dist] she SSH SHE-LAUNCHED-IT[ritual]p
233. SHE-DANCED[circumcision dance]p
234. Event

§17.3
Although this cycle is repeated many times (with different PL or place name, numbered PL-1, PL-2, etc.) to the point of inducing boredom in English-speaking readers, there is some variation from one cycle to another—occasional omission of one of the segments shown (ellipsis), different choice of verb, etc.

I have generally grouped the motion verb with the following place name as one bracketed group and similarly the fishing verb with the 'no!' or 'small' segments as one group. However, these groupings are discussable. In the case of the motion verb and the place name, it is notable that the place n. is normally in zero case form (i.e., "Nominate" meaning locative, as usual with place names, §6.5). In particular, it is not in Allative[-Dative] case, as it should be if it were specifically associated with the motion verb (rather than the following fishing verb). The place n. is sufficiently independent in its morphology and intonation to permit us to label it functionally (in this context) as a separate information unit which we will label "Focus[Loc]."

The fishing verb (an intran. verb meaning 'to fish with hook and line' or a trans. verb 'to hook/catch [fish]', occasionally both) is paired with a following expression of the type '[fish was/were] small'; the latter essentially indicates an unfavourable result of the fishing (the goal of which was larger fish). Often the 'small' predication is accompanied by a negative particle (glossed 'no!'), which essentially indicates the failure of the fishing activity (cf. English 'no soap', 'no dice', etc.).

Regardless of how we distribute the brackets at this relatively low level, Figure 17-1 appears to indicate a higher-order discourse unit (paragraph, not explicitly indicated in our notation). However, since our many repetitions of the whole cycle (paragraph), it is not obvious that the motion verb should be regarded as the beginning of a new paragraph, and this will have to be justified. We will return to this point in a moment, but first we comment on some additional information units.

Alongside the minimal expression of the chunks in Figure 17-1 in its various repetitions (each repetition of the whole cycle referring to a distinct instantiation of the event sequence at a unique location), there is a certain amount of unnecessary or redundant material. For ex., 'he-kept-killing-them crabs' #5 is repeated as 'he-kept-going he-kept-paddling [place n.] he-paddled' #10–11; and so forth. I refer to such repetitions (when not describing clearly distinct instantiations of the activities) as echoes, using the term rephrasing for similar repetitions which use different verbs describing the same event from a different angle (#170, #187, #198, #199, #205, #233, #254, #251), resumption for a repetition (#94, #118, #131, #137, #200, #201, #207, #233).

It should emphasise that these distinctions are not sharp, either conceptually or formally, and my labeling of given strings or parts of strings using these labels is merely heuristic. Moreover, as already observed in §14, it is useful to distinguish more than one functional type of echo, as follows:

§17.3
filler echo (gives speaker time to think of next string); clarifying echo (repetition to make sure addressee understands or to add an additional morpheme or word); lead-in echo (repetition functioning as framer for next string).

Of course, these functional subtypes may overlap in practice or otherwise be indeterminate, but there are tendencies at least for lead-in echoes to be formally differentiated from the two other types of echo: lead-in echoes commonly have narrative high monotone often have postposition /-maga:/ added to the verb (§12.21), and or otherwise be indeterminate, but there are some tendencies at least of the lead-in echo string or at the beginning of the next string typically have particle /nga/ ('and l ' in Text A) either at the end (HM), are often reduplicated continuous verbs, for some not typical of clarifying echoes and are also not very common with indicating continuity between the two strings. These features are not typical of clarifying echoes and are also not very common with filler echoes when the speaker clearly needs time to think the next string over. On the other hand, clarifying and filler echoes in particular show a tendency (when permitted by lexical items present) to include new compound initials vis-à-vis the original (primary) predication.

In Text A we mark tendencies but do not attempt a rigorous marking of the subtypes just shown. It should also be mentioned that our concept of echo is rather generous, including expressions which designate the prolongation of an event whose beginning has just been predicated. For ex., the act of paddling from place A to place B is often expressed in Nunggubuyu by an initial punctual verb 'he-paddled,' with subsequent echoes of the type 'he-kept-paddling,' or perhaps one or more simple repetitions of the first punctual verb (note that p means 'punctual,' "continuous," cf. end of Text A). Exx. of such echoes are #10, #15, and many others. In the case of #25 we tentatively label 'he-kept-going,' as an Echo of the preceding 'HE-GOT-UP,' despite the change in verb, since 'to get up' often implies not just literally arising but also leaving a location.

In #3 to #14 we note a certain gradual change in the structure of the cyclical pattern shown in Figure 17-1. In #30-#34 we get a sequence of rapidly spoken repetitions of identical strings of the type 'he-hooked-it,' 'it-was-Jamal.' These appear to indicate separate events (each event consisting of catching one fish) which took place in quick succession at a single location. I am reluctant to describe the noninstantaneous instances as echoes since each event is distinct, but the whole sequence is clearly a discourse unit which we may call a narrative series. In this particular case, each string consists of a verb of fishing plus an expression ('[it-was-] small') indicating a disappointing outcome, so the fishing verb is in HM intonation while the Na/ ('small') is not. Note also that #35 ('and; no,' they-were-[small]-still'), while characterisable in one sense as yet another expression of disappointing outcome, is also a summation of the the outcome expressions in #30-34; it thus uses the plural form of 'small' and includes the postposition /-mara/ 'still, only, nothing but'. (For a slightly different summation, see §7.9; this element could have been used to end the list in #35-#50 but happens not to have been used in this instance.)

In #41 we find our first usage in this text of a verbal root form, an uninflectable interjection-like particle with verbal sense (§12.2). Other root forms in the text are at #166 and #169, though we might loosely associate with them the 'pop!' (i.e., bursting) onomatopoea seen in #241-#244 and #251. (Belonging is also represented by direct onomatopoea in #175, #177, #181, #202.) There is a second occurrence of the root form for 'go,' in #214, but here the sequence 'PL-34 and, go!' means 'from [place n.] onward' (i.e., a trajectory beginning at PL-34). In general, root forms are not very frequent in this text since many verbs (including 'to paddle' and 'to fish') lack root forms.

In the block of strings from #52 to #77, we find some evidence for our earlier assertion that the cycle in Figure 17-1 correctly shows the motion verb as the initial item in each cycle (or paragraph). Note that the particle 'again' ( /*41jan/ ) is regularly used in front of the motion verb, not the fishing verb, in each cycle in this part of the text. Note also that underlying, indicating high monotone intonation (HM), is applied in this sector to the motion verb (or the adjoined 'again' particle, as in #56), but not to the verb of fishing. Although the patterning is not totally sharp, these facts suggest that the motion verb functions here as a partially backrounded predication which sets up the following (foregrounded) verb of fishing.

The use of the "empty" verb /yan/ ("to do thus" or 'to say/ think thus') is also significant. Although in #44 'he-did-thus,' may mean 'he-fished,' or (equivalently) 'he-hooked-it/them/fish,,' and thus function as an echo of "HE-FISHED," (/*33), later on it seems that 'HE-KEEP-DOING-THIS' simply replaces an expected motion verb like 'HE-PADDLED,' whereas the verb of fishing is never simply replaced by this "empty" verb. (Another semantically empty verb, /*, does not occur in this particular text.)

In #70 and #30-#92 we have explicit reference to mental decisions made by the protagonist M, expressed as thought quotations. Such quotations are often followed by /yan/ in the sense 'he-said-thus.' This quotative framer is optional (quotations are usually identifiable by quotation intonation, #17-4), and happens not to occur after #78 or #50-#92, but does occur after songs or (other) quotations in #128, #141, #150, #224, and #229, in each case following (not preceding) the quoted material, as is normal.

Beginning with #97 the previously hapless fisherman M begins to have his luck change—the fish start to get bigger. Lexical resources, along with the cpd. initial /-malan/ (glossed 'quite' here), are used to indicate a gradual increase in size. The sequence is 'quite-big' #97, 'big' #100, 'quite-large' #103, 'big' (with more emotive intonation) #106, 'huge' #109, a special reduplicative plural form of 'big' in #113, and again 'huge' #114 (in explicitly nonpredicative form this time). The roots are /mun<i>/ 'big,' /lhabarj/ 'large' (a little more emphatic than /mun<i>/), and the strong cpd. form /n'agara-wuge/ 'huge, vast.' Even without a regular comparative/superlative system, Nunggubuyu thus uses lexical and derivational alternatives to accomplish a complex discourse function.
17.4 Discourse uses of intonation.

For pitch contours applying to individual words (in isolation) see §2.11. In this section we deal with certain types of intonation, either of whole phrases or just their terminal syllables, which have discourse functions. We deal first with special contours used in lists, quotations, and backgrounded strings of certain types, then we discuss more ordinary patterns. Narrative high monotone (HM) is characterised by a steady high pitch, little pitch variation from one syllable to the next, and (usually) a similar uniformity in surface duration of syllables except for possible stylistic lengthening of one syllable (usually the final syllable of the string). It is characteristic of some types of background strings, and repeated items in narrative series (§17.3, above). Broadly, we can speak of all of these constructions as non-foregrounded strings which typically serve to frame a following, more foregrounded string (except in long narrative series where there may be no specific foregrounded string). HM is indicated in Text A by single underlining. Note that in some cases the HM applies to only part of a string, and may terminate or begin within a word (indicated rather crudely by partial underlining of the "English" translation). In the penultimate column at the right in the textual schema, HM indicates that the high monotone is maintained right to the end of the string. We also use this underlining for song intonation (#122-#127, #220-#223), and use "HM" in the penultimate column to indicate the pitch of string-final root forms (#41, #214). It would be desirable, though notationally messy, to distinguish songs from regular HM, and especially to distinguish the terse, interjection-like root forms from both of these.

List intonation (L) resembles HM. It is difficult to describe it rigorously, since typically Nunggubuyu speakers uttering lists, such as the sequence of names of fish spp. in #45-#50, do notattle off the nouns in a fluent sequence, rather show hesitation here and there, often using the 'whatchaamalalit?' noun /warrp/ (§13.10) as a filler (as in #47 and #50). However, allowing for this fluctuation, we can say that list intonation has some resemblance to HM in having a generally higher baseline pitch than in unmarked strings (cf. below). The final syllable in each string in the list (often just a single noun) may show a slight fall, a slight rise, or level pitch. (For a list-summative demonstrative see §7.9.)

Quotation intonation shares with HM a relatively high baseline pitch. However, quotations embedded in larger narratives are also characterised by sharp rises and falls in intonation from one syllable to another (as in normal conversation), and also by a somewhat exaggeratedly rapid speech rate. Intonation (as well, perhaps, as shift in pronominal perspective) is important in identifying quotations, since while there is an optional quotative framer (see §17.3, above) 'he-said-thus' following the quotation, there is usually no explicit framer preceding the quotation. Quotations occur in Text A at #226, #50-#52, #139-140, #178-179, #197, and #226-#228. At #226 the narrator particularly exaggerated the quotation intonation features and shifted to an unusually high baseline pitch.
There are also a small number of other instances of "pitch. It is a little hard to explain them in a unified way, but we may hazard an observation or two. The strings with tend to involve motion verbs (interpreted broadly, e.g., including 'he-hid-in[-trees]'), tend to occur after significant narrative boundaries (e.g., after quotations or other intrusions or digressions), and involve the initial (primary) predication of a particular instance of the motion (i.e., not an echo, or a noninitial string in a narrative series). For exx. see #9, #110, #134, #146, #186, #190, #199, #201, #282.

The other exx. are those: 'oops' particle anticipating following self-correction (#211); HE-MADE-FIRE there' in first mention of verbs of fire-building and cooking (#115); focal noun 'fire' as self-correction (#211); 'HE-MADE-FIRE there' in first mention of strings, which are closely linked with following strings in some way but which are not mere echoes of some earlier string.

Our remarks about intonation here have merely scratched the surface. Much could be said about intonation contours within (as well as at the end of) strings, but it is difficult to describe them notationally and more difficult to determine the "functions" of each rise and fall. Readers seriously interested in the analysis of Nunggubuyu narrative discourse as such are strongly advised to listen to the original tapes (now at A.I.A.S. in Canberra, see catalogue at end of my dictionary).

17.5 Referential tracking and disambiguation.

One essential job which every grammatical system must accomplish is the maintenance of a high degree of referential clarity, even in extended discourse chunks, without requiring constant repetition of full, referential NPs (such as personal names). Nunggubuyu has devices for doing this, though they differ sharply from the mechanisms found in most other languages.

In general, the most characteristic referential mechanism of Nunggubuyu is the unusually elaborate noun-class (NC) system, seen not only in affixes with nouns (#4.7ff.), pronouns (#6.2), and demonstrative pronouns (DemPro, §7.2-J), but also in subject- and, for transitives, also object-) marking pronominal prefixes in verbs and predicative adjectival nouns (NADJ), see Chapter 9. Because of the large number of NC categories (NC1, MDu, Fsg, FDu, [human] Fi, and five nonhuman NCS, one of which has two subclasses distinguished in object-markers in pronominal prefixes, full referential NPs can often be omitted. Even if a subject or object NP, for example, is represented on the surface only by a pronominal element in the prefix on the verb, this minimal marking is often sufficient in a given context to identify a particular referent. For example, it is usual for this reduction (from full NP plus concord to just the pronominal concord marker) to apply to noninitial occurrences of a given referent in a discourse chunk; we even have cases where a full NP is omitted entirely (even in its initial mention), with the NC category plus the context (including, perhaps, as the only clue given to the addressee) sufficing for the referent.

In Text A, the NC system is helpful although it does not solve all referential problems. For ex., in going from #180 to #182, the shift from 3PL to #182 (the latter requiring three or more search party. Similarly, the fact that 'he-stank' (#204) and 'they did to-their-islands' (#187) will be not specifically plural in form, since 3Pl applies to humans only, see §4.15.

However, in a good part of Text A it happens that the NC system is either redundant or unhelpful. In the long section in which the protagonist M is trying his luck at fishing (#3-#14), he is the only human referent (the others are fish spp. and place names), and no difficult referential transitions occur. M is cross-referenced in the subject markers of the pronominal prefixes on verbs and NADJ, and this is all that we need (and all we would need even if there were only a single third person singular NC).

In the section beginning with the injection of a second (Mg) protagonist W into the action (#150ff.), the fact that both M and W are Mng means that the NC system by itself is now insufficient. Let us examine the devices used in this section to ensure clear reference:

a) explicit use of full NP (i.e., here, the names) in #121, #150, #160,

b) use of Contrastive 3Mc pronoun /nt-y=\-yu/ 'as-for-him' to indicate referential shift in #182 (note also Contrastive as-for-them' #171 referring reference to the wives and children, 'as-for-hers' #182 and #246 to distinguish one wife from the other, and 'as-for-him' #246 to shift from the wives and children back to W); of §6.6.

These devices are not used on every occasion where a referential transition occurs, essentially because the speaker presumes that listeners have enough of the speaker's situation. Demonstrative pronouns (DemPro) are used here since there are several roots (Proximal, Demonstrative, and the non-deictic Anaphor), plus additional affixes which among other things mark various kinds of definite/presupposed status.
Text A is not the best text to exemplify the disambiguating use of demonstratives, but if we include demonstrative adverbs (DemAdv) as well as DemPro we can see that demonstratives are used systematically to depict spatial configurations and thus indirectly help with reference. In the 'he looked and i.e. 'he saw him') ex. #137 and #164, the Imm root is used (indicating fairly close approaching of the two protagonists), while in expressions indicating that first N and then W moved to other locations we have a string of Dist forms (#148, #152-#155). There are also Anaph DemAdv indicating that the location in question is the same as one which has just been mentioned (#160, #161, #164, #210, #213). Whether Anaph or one of the deictic categories, the speaker may add a cardinal-direction expression ('west' #155, 'east' #174), or the cardinal-direction adverb may be used by itself ('west' #200, 'east' #207). In other texts there is more extensive usage of Anaph DemPro to identify a referent in one clause as identical with a previously mentioned one (Chapter 7).

The combination of the fine system of NC categories, the rich demonstrative system, and the use of personal pronouns with specific discourse functions (notably Contrastive), are the essential ingredients in the Nunggubuyu system of referential tracking in complex discourse structures. There is no formal syntactic expression of coreferentiality across clauses by switch-reference, coreferential-NP deletion (Equi, etc.), or the like.

17.6 Focus, topic, definiteness, givenness.

Such discourse categories as "focus" and "topic" are very difficult to discuss because of the wide range of usage and misusage of these terms in the linguistic literature, but also because such discourse notions are intrinsically tricky and fuzzy. I will come right out and say that they are, at best, gradient (scalar) aspects of any given NP in context rather than crystalline categories. However, there are some morphological forms which constitute crystallised categories related to these (programmatical) discourse concepts and to which, for want of better terms, we have applied such "discourse" labels. In addition, some syntactic (mainly word-order) patterns merit consideration in this connection.

Let us begin with rough definitions of (programmatical) discourse categories as follows:

**FOCUS** a constituent (usually NP) whose referential identity or substantive essence is foregrounded;

**TOPE** what the sentence or other string is about;

**DEFINITENESS** quality of a constituent (usually NP) presumed to be understood as designating a particular referent because of prior mention, or intrinsic unique (or at least prototypical) reference of the constituent;

**GIVEN** (vs. NEW): recently mentioned and presumed to be in addressee's consciousness (vs. first mention, or first mention after long interval).

In the present section we will continue to use capital letters to refer to these programmatical "categories," as opposed to labels for grammatical categories like Anaph and Contrastive].

Some overlaps among the programmatical categories must be noted right away. First, NEW items have a natural tendency to be at least somewhat FOCAL in the sense that identity/substance is salient. However, NEWNESS is a property of a given NP regardless of what else is present in the immediate clause environment, while FOCUS is essentially a matter of foregrounding one NP or other constituent sufficiently broad (it will be subdivided below) to include some instances of GIVEN constituents.

GIVEN constituents are ordinarily DEFINITE, since recent mention is a sufficient condition for DEFINITENESS with respect to really applicable to mass nouns like 'sand' in most contexts, so that a NP could potentially be GIVEN without being specifically DEFINITE; one could also argue that a term for a class of entities, such as 'whale', applied in succession to several individual members of the class, could be GIVEN (on one level) without being DEFINITE.

**TOPE** is a notoriously shifty category which can be applied at various levels; we might say that a person X is the TOPE of a particular clause, that a fight between X and Y is the TOPE of the next larger discourse chunk containing this clause, and that traditional fighting methods are the TOPE of the whole text. It is not necessary for the TOPE to be overtly expressed as a constituent.

Since TOPE with regard to larger discourse units has few specifically grammatical consequences, we concentrate on TOPE at the level of NP or smaller units. In this context, the relationship between TOPE and FOCUS is delicate. Consider a two-clause sequence like this:

[X went east] and [Y went west]

It is reasonable to say that within each clause the subject, X or Y, is the TOPE (since 'went east' or 'went west' are clearly predicated "about" this NP). However, in the larger construction, it is customary in addition to emphasise the referent, we assume that the contrastive structure X and (especially) Y may be foregrounded and emphasised in their respective clauses, which permits us to consider them as at least partly FOCAL (in a broad definition of FOCUS):

-X-FOCUS-Y

Let us now look at grammatical phenomena in Nunggubuyu which are related in some way or other to these discourse notions. We begin with morphology.

First, summarising the exposition in §4.8, there is a system of NCInf (infl or noun-class) prefixes used with nouns, and with modification also with DemPro (demonstrative pronoun). Aside from their immediate disambiguating value (#17.5), they have discourse functions expressed by the opposition of Junctual and Continuous prefix series, and by the option of omitting the prefix altogether.
The rules are rather complex, and for human nouns the Continuous and Punctual series are not distinct (so there is just the choice between presence/absence of prefix). Negation, and case category of NP, systematically influence choice of prefix form. However, for the important Nominate case form (subject or object) in positive contexts, the choice is between Continuous prefix and zero (absence of prefix). The choice here is not so rigorously controlled by discourse factors that we can always predict the outcome, but there is a clear statistical correlation of zero with foregrounding the referent/substance of the NP, and of (Continuous) prefix with absence of such foregrounding. Thus zero prefix is required with a) initial occurrences of NPs (especially nonhuman); b) immediate postposition /-u/, /-i/ 'still, only, nothing but' ($4.32$, §12.21), which foregrounds the identity/substance of the NP; c) NP functioning as predicate (cf. also the use of unprefixed DemPro as predicative demonstrative, §7.4).

Although the prefix opposition does not exactly match the programmatical discourse notions mentioned above, we can say that for positive Nominate nouns (notably nonhuman ones other than place names and NAdv), zero prefix is used to give a (slight) foregrounding to the semantic essence of a noun (or DemPro), whether specifically predicative or not. It is not, however, the effect of a major clause-level FOCUS-assignment rule which would implicitly or explicitly downgrade the status of other constituents.

In Text A, many of the nonhuman nouns are place names, which differ from ordinary nonhuman nouns in prefering the absence of Continuous prefix (always ANA class for places), see §4.5. These forms are marked by a subscript prefix in suffix form of the type, e.g., /-L-hy/ in #16. However, note the use of Continuous (') prefix in three place names #190-#192, here the factors favouring this form may be the previous mention of these particular place names (#88, #95, and #111, resp.), and perhaps aspect-harmony ($4.6$) influenced by the strongly continuous form of the verbs.

Of the other nonhuman nouns in Text A (aside from NAdv, which usually have no prefix), we have the following types: Punctual Continuous prefix for 'dangerous-island' #85 (a compound), suggesting that this is a Pseudo-Nominate ($4.8$) which has the prefix pattern corresponding to its semantic category (here allative, or at least some spatial category); Continuous Continuous prefix for 'crab[a]' #5, items in a list of fish spp. /-L-hy #4-50, a repeat of one of the fish spp. terms with explicit reference to plurality #12 (cf. also 'huge' referring to these fish in #114), and /fire[a]#206--in all of these cases I feel that aspect-harmony is involved, favoured by the fact that these nouns refer to substantial numbers of individuals; and zero (absence of Continuous prefix) with the clearly identifiable /fly[a]#159, interrogative 'what?' #178, and the highly foregrounded 'monstar' (i.e., unknown terrible being) #228.

Turning from nouns to personal pronouns, attention is called to our earlier discussion of five morphologically distinguishable forms of independent pronouns with different discourse functions ($6.8$ to $6.10$), and also to our observation ($6.3$) that Nominate forms tend to function (in some contexts) as attenuated forms of the ContrASTive type in /-ayun/ ($6.8$).

The role of independent pronouns in the discourse system operates at clause-level and higher. That is, the discourse categories are not merely local properties of particular NPs, but affect the rest of the clause; rather, discourse categories marked by pronouns clearly involve the relationship of the referent in question to the overall clause or to NPs in other clauses.

The most important discourse category is the ContrASTive, marked regularly by /-ayun/. This form is tailor-made for the type ['X went east'] and ['Y went west'] mentioned earlier in this section. Y is likely to be preceded by a ContrASTive pronoun in /-ayun/ (even if Y is expressed by a full, referential NP) to make retrospective contrast, and in the first clause there may be a ContrASTive pronoun (or the attenuated Nominate pronoun) at the beginning or end for anticipatory contrast. ContrASTive pronouns are predominantly associated with NPs functioning as (trans- or intran.) subjects in their clauses, though direct objects and others are also permitted. In general, the structure shown earlier in this section with X and Y functioning on one level as ContrASTive FOCUS toward each other, and separately within their own clauses as TOPICS, is appropriate here in the broad sense of FOCUS.

It must be emphasised, though, that in this context FOCUS has nothing to do with NEWNESS, or indeed with foregrounding the semantic essence of a noun. Typically, a long text dealing with two or more protagonists will use numerous ContrASTive pronouns at points in the text where a referential switchpoint occurs, as in role reversal ('X-hit-Y and Y-hit-X') or shift from one actor's speech to another's ("...x-eat-down; as-for-him, Y-got-up,..."). ContrASTive forms may be used with the first mention of a new referent, but there is no specific association with NEWNESS.

ContrASTive pronouns with /-ayun/ are glossed 'as-for-him/her/then/then' in Text A. We have already mentioned how these forms clarify referential transitions in our discussion of tracking ($17.5$).

Closely related to /-ayun/ is a type in /-ayun-ga/ (end of $6.8$), a less common pronoun form of the type ['me/him/you...'] too, requiring that the two ContrASTive referents be involved separately in more-or-less identical actions in the same roles. In addition, there is a Sequential type in /-abilhangu/ with similar contrastive sense, but requiring that the actions be sequentially ordered in time (hence we may gloss such forms as 'he-in-turn', etc.). The existence of these forms shows that our notions of FOCUS and TOPIC must be yet further subdivided into more precise categories which explicitly describe the relationships between the overall events contrasted. There are no exx. of /-ayun-ga/ or /-abilhangu/ in Text A; we see end of $6.8$, and $6.10$, for discussion and exx.

In addition, there is an emphatic pronoun in /-wa/ ($6.9$). This form is characteristically used with specific human NPs, and functions as clause-internal, identity-foregrounding, FOCUS-marking. It is used chiefly in answers to WH interrogatives and in other contexts where the specific identity of a referent (as opposed to others in a pool of potential referents for the same "slot") is strongly emphasised. At #139 in Text A we see the Emphatic form 'it's-me!' used by the actor W as he suddenly presents himself to the other actor X.
Unlike the Contrastive, the Emphatic is not explicitly compared to another NP in a neighbouring clause, except in the trivial sense that an utterance with Emphatic pronoun may follow an interrogative. The emphasis in question is vis-à-vis other references which might have fit into the same "slot" in the clause in question.

Turning now to DemPro (§7.2ff.), we begin by observing that in contrast to personal pronouns these operate at the level of individual NPs rather than at clause-level, though of course the larger context (e.g., GIVENNESS) may affect the choice of forms. An additional qualification is that, because of the strong tendency of Nunggubuyu speakers to use deictic categories based on the here-and-now of the speech event to indicate configurations of relative location within a narrated event (§7.26, cf. §7.21 and §7.22), actors in a narrative passage may be associated with demonstrative categories in such a way that the latter may have disambiguating (identifying) value. In addition to deictic (pointing) categories, the demonstrative system has Anaph[oric] as one of its four basic roots, and a number of affixes marking discourse statuses, in addition to the same NCinfl prefixes just mentioned above for nouns (the NCinfl prefixes are omitted in the unprefixed DemPro used predicatively, though minimal marking of NC is still possible because of a special set of Inf suffixes required with DemPro, §7.2).

It is useful to distinguish between the grammatical category Anaph and the related but wider pronominal category DEFINITE/GIVEN. This is because the Anaph demonstrative root is generally not used with reference to anything in the Prox[mate] or Immediate regions, so it effectively competes directly with the category Dist[ant]. This means that Prox and Imn forms are sometimes (pronominal) DEFINITE/GIVEN. Indeed, they approach DEFINITENESS almost by definition because of the sharp spatial restrictions on which referents these categories can apply to, but aside from this they may be used to refer to someone or something which is prominent in the preceding discourse. (Prox and Imn forms may also be used in apposition to first and second person pronouns, respectively, in which case they are again DEFINITE, see §6.14, §7.27.)

The most important affixes (other than NCinfl) with discourse significance added to DemPro are Concrete /-u/ (§7.6) and Absolute /-yun/- (§7.7). In simple forms, /-u/ is very common with Imn with a complex significance usually including a slight DEFINITE nuance, though the DEFINITENESS in question is centred on physical presence with discourse-internal GIVENNESS only accessory in significance; for ex., /-u/ is regular in the second person appositional use of Imn, and elsewhere is more common in nonpredicative (including TOPICAL) forms than in predicative ones. /-u/ is infrequent with Anaph and is not used (in single DemPro with Prox or Dist), so it has a deictic as well as discourse character.

Absolute /-yun/- (§7.7) is very frequent with Anaph DemPro, especially in nonpredicative (i.e., maximally GIVEN) forms. Some givenness is inherent in its association with the Anaph root (though it may occur with Prox and Imn), which is primarily a discourse-internal indexing marker though it can also be applied to entities thought to be known to addressee. In addition, GIVENNESS is suggested by the fact that, with Imn DemPro /-yun/- has explicit discourse-sequence function (summing up a preceding discourse stretch, §7.7), and occurs in one construction with Narrator.

It is not always easy to distinguish givenness from DEFINITENESS as operative pronominal categories, but in these DemPro formations we can at least primarily associate Concrete /-u/ with DEFINITENESS and Anaph and Root Absolute /-yun/.

Let us briefly go over the demonstratives in Text A, starting at #166 (pointing to nose in perspective shift, §7.26) and at #238 as part of a series including Dist 'there' (#262–#257) in a construction basically meaning 'in several spots' (again with partial here-and-now perspective shift). Predicative DemPro /ya/-ni/ /ana/-'ni/'this' occurs #129, and again with 1st person sense (#7.27) at #39. Centripetal adverb /ya/-'ji/-'la/'there' over here' occurs at #232, again in perspective-shift (here-and-now spatialisation) usage (§7.12). The only instance of a discourse-marking suffix is Absolute /-yun/- in /ya/-ni/-ya/- 'it is this' in quotation #197, where the point is that the search party has finally found the looked-for Imm form /da-gi/- 'he is/that occurs at #37 and #164 in near-identical constructions of the type 'X looked for [and] there was Y' (i.e., 'X saw Y'). Concrete /-u/- is absent since this context has #226–#227 we have /da-nu/- /-u/- 'it is that' in a quotation, apparently the reference (i.e., 'it is you!'); in this usage Concrete /-u/- is regular (§7.27), presumably on the grounds that addressee is DEFINITE by definition. Both /da-gi/- and /da-/- are predicative DemPro.

The Dist forms in Text A are adverbial rather than pronominal (referential in nature), though /-ya/-ni/-'la/-'la/- 'from there' is formally a nonpredicative DemPro 'that' (§7.3) with Punctual NCinfl prefix /-a/- and with Centripetal suffix (§7.5). Allative /-u/-, and /-aw/-, indicating motion toward a not-previously-locative /ya/- 'there' (distant, not anaphoric) occurs at specified location. Likewise, Locative /ya/-ru/- 'there' (distant, not anaphoric) occurs at °194, in a series #132–#194, in #194, in another series #126–#237 (also with 'there' #238), and finally in #238. Also, Centrip DemAdv /ya/-'ya/-'la/- 'from there' (origin indefinite or at least GIVEN) occurs in #140, #155, and #232. Of course, at the time of uttering the DemAdv it is deictic (pointing) or sometimes just indefinite, rather than GIVEN/DEFINITENESS. None of our Dist forms in Text A take discourse-sequence-suggesting affixes (Anaph forms in Text A are likewise typically adverbial; there is one good example of a nonpredicative DemPro with Absolute suffix, namely /nu/-'ba/-'ya/-'ya/- 'that [man]' #250, referring to a GIVEN protagonist (Further [re]-specified by a following relative clause). Anaph /ya/-'be/-'la/- 'that one [NA class]' #250 is problematic because...
the noun class is not regular for 'island' (usually ANA, though perhaps NA class is an alternative for this noun, cf. NA class noun /yininliku 'sandbar'), but the use of Anaph here (for an apparently NEW referent) is not unusual, since Anaph is often used in connection with 'whatchamacallit?' expressions (see #98) where the speaker is having to suddenly remember a name or word for a referent which is (painfully) clearly in mind.

The adverbial Anaph cases are Locative /ba-ga/ 'there, at that [same] place' #114-#115; the same form with Continuous NCA prefix /an-uba-gu/ #161 (with accompanying relative clause specifying location by reference to a previously mentioned activity); Allative /bu-gan-natu/ including postposition '-still' at #116, hence 'to that same place [where the other man was]'; Centrip /ba-ga/-la/ 'from that [GIVEN] place' #160, and with prefix /an-uba-gu/-la/ #210 (referring to place name PL-31 in preceding line), #213 (directly following the relevant place n.), and #113. Although the number of exx. in Text A is small, our list hints at a correlation of Anaph (as opposed especially to purely deictic Dist) with a) postposition /-wug1/ 'still, only'; b) Continuous NCA prefix (see above for comments on this prefix's slight DEP/PART/GIVEN nuance); c) Centripetal forms (since the usual sequence is of the type 'X went to [place n.], then from there...' with the DemAdv GIVEN by the preceding place n.). These patterns are borne out by larger-scale statistical analysis (see, e.g., §7.30 on postpositions, §7.11ff. on DemAdv forms including preflexion, and §7.15 on Centrip; for similar remarks about Ablative forms of place names see §4.5). In on postposition /-wug1/ 'still, only, nothing but', which has a role to play in the Discourse system (empathically consisting on sameness, in one of its uses), see §4.12, §6.13, §7.30, and for verbs §12.21.

17.7 Preposed and "afterthought" constituents.

Taking the verb or other predicative element as central, how do we interpret NPs and other constituents which are (arguably) in the same clause (cf. §15.5) but which are preposed or postposed to the verb, especially when also separated from it by a pause?

Because word order even within a "clause" uttered fluently as a single intonational/breath-group unit is highly flexible (§15.5), we cannot expect a simple, pat answer to this question. Nunggubuyu grammar and discourse structure is such that a given NP, for example, may be directly juxtaposed to the verb, may be uttered as a prelude to a verb (or String thereof), or may be held off and given as an afterthought constituent; of course, in many clauses the full NPs are omitted entirely (except for pronominal prefix concord in the verbs).

There is every reason to think that Nunggubuyu speakers show distinct "psycholinguistic" constraints on the surface cohesion of "clause" structures than do, for ex., English speakers. Aside from the usual frequency of afterthought constituents (following pauses), we should also mention the very frequent usage of /la\v/ "whatchamacallit?" and its derivatives (§13.10). For ex., in Text A we see this element in #47 and #50 (fish app. list), #68, #64, #87, #98, #209, and #213 (mainly place names); there are other texts in which the element is even more common. In other words, there is considerable evidence that Nunggubuyu productive strategies are English relative to this question. By afterthought we normally mean a clarifying constituent added to an earlier string, after a pause or sharp intonation boundary. The concept is somewhat informal, and there is some freedom in how we may wish to code particular textual exx. In general, we may say that some types of echoes, notably clarifying echoes but also afterthoughts, though lead-in echoes (§17.3), are functionally similar to afterthought strings, with perhaps however echoes (§17.3) functioning as frames for the expression "echo" for an afterthought-like repetition string involving basically the same linguistic material as in the earlier preface/absence of compound initial, or the like; we use "after"-usually a full NP or other constituent omitted (but perhaps implied) marked in the preceding string.

In Text A we mark numerous strings as "afterthoughts" (in the analytical column on the far right). Among others, we may mention intran. verb, #6 (Ablative construction including Centripetal DemAdv), #20 (Allative construction), #120 and #121 (Ablative place name, then subject of trans. verb at end of #119), #190 (subject Locative of 'flanding' construction), #186 (long NP including Relative noun, the whole functioning as trans. subject in #186 and #187), #237 (apparently trans. object of verb in #236), #234 (Benefactive object of verb in #233), and #235 (Possessor of verb in #233, which is itself an see §6.4). Clearly the afterthoughts can represent a wide range of grammatical and semantic relations, and if we look at other texts we may find many exx. involving an NA, for instance, added as an afterthought referring to some (covert or overt) NP in the NMDT.

The question whether to recognise some verbs or other predicate expression as "afterthoughts" clarifying an earlier nominal or similar expression also arises. Some instances in Text A where we might consider this to be happening are #2 (‘another-[man]’, I-will-tell-you he-farted’), #130 (‘toilet’ [i.e., general reference to excrement], #176 (‘imitation of belching’, he-belched’) and similar case #203, #208 (‘and fire, in-east now they-rushed, ring-of-fires, they[fires]-were-joined’).
In this connection, we note that the sharp morphological distinction between nouns and verbs (predicative NAD) being intermediate formally but clearly distinct from both does not always correspond to a sharp semantic difference. In particular, there are a number of "abstractive" nouns like /wun'arli/ 'right[ing], battle, flaticuffs' with verbal meaning (§4.33), and these can naturally be followed by fully inflected afterthought verbs with the same meaning; thus /wun'arli/ in 36.4.1 is followed by a Reciprocal verb meaning 'they hit each other'. Even in the exx. from Text A just cited we have roughly similar instances; 'toilet' (actually the English word laundry meaning 'toilet') is used there as a general word for defecation so that the following verb 'he-farted' is a clarification, while 'fire' in the relevant context implies the act of setting fires. I am inclined toward a similar analysis of #5 ('now canoe indeed canoe, he-paddled'), where 'canoe' seems to imply (in context) the act of paddling.

Because of these considerations, it has been difficult for me to distinguish constructions of the following types (schematically):

(a) proposed (FOCAL) NP
nuclear string including verb

(b) (nuclear) NP
afterthought string including verb

In general, I am inclined to analyse the relevant sequences in Text A (and elsewhere) using the following schema:

(c) (FOCAL) NP
afterthought string including verb

This analysis avoids taking either of the strings as completely nuclear or central. The NP is regarded as having some kind of prominent (FOCAL) status (for the use of capitals with pregrammatical "discourse" categories see §17.6) with respect to the overall construction, while the verbal string is analysed as a filling-out or clarifying expression. Hence, in our presentation of Text A, the NP string preceding a verbal afterthought ("Aft[verb]") is labelled "FOC[NP]" in the far-right column.

However, this analysis is not applied to the place n. in the recurrent cycle ('he-paddled, place n., he-fished...') shown in Figure 17-1 (beginning of §17.2), which occurs repeatedly in the first part of Text A (e.g., #15, #18, #56). We do recognise the place n. as having a kind of FOCAL relationship to the following verb of fishing, since from one cycle to another the new place n. is usually the only change, since the place n. is usually carefully set off intonationally and carefully identified, and since in general Nunggubuyu are much more concerned with geographical anchoring of textual passages (especially in myths) than westerners. However, since the following verb of fishing cannot be analysed as a simple afterthought-type expansion on the place n., we categorise the verb as an (autonomous) "Event" rather than "Aft[verb]" in the far-right column. (On the other hand, the place n. in #20 is in Allative case form and is therefore clearly bound to the preceding motion verb; we classify the place n. there as an afterthought to the motion verb.)

614

§17.7

Our use of the term FOCUS (FOCAL) to describe proposed NPs or similar constituents should not be taken as implying a strict discourse status applicable to all exx. Proposed NPs such as those terms--setting the scene, introducing a new actor, inaugurating a new "paragraph" by an abstractive noun anticipatorily summarising etc. We should also note that prepositional word (with or without WH interrogatives and the most important pronouns (with Contraetive /-ayun/ and Emphasiz /-waj/). In other (other) prepositional position, but it is difficult to pin this rather vague notion down in a way which would be generally valid. Moreover, the chunk-by-chunk production strategy mentioned at the beginning of this section means that some NPs which might be intuitively FOCUS or otherwise prominent end up as afterthoughts. (In addition, we point out in §6.8 that Contraetive pronouns in /-ayun/ may be preceded, especially when the contrast is with a following, not preceding, clause.)

§17.8 Compounding in Text A.

We noted in §14.8 that some types of compounding (notably the addition of a noun-like cpd. initial to a verb or predicative NAD) have a partial discourse motivation.

There are many cpds. in Text A (not clearly indicated in the "English" transposition, which is word-for-word rather than morpheme-for-morpheme for the most part; some are clearly lexical cpds. (§14.4-2) which function as though they were simple stems; e.g., /nagaru-nugere/ 'huge' #109 (with "unmarked," i.e., dummy "auxiliary" cpd. (§14.4) /wungag-wal- 'beilch' #176cf.

Of somewhat greater interest are verbs with body-part (including emissions) cpd. initial. The verbs 'it-made-me-aware', 'it-became/-larme/-' (with "unmarked," i.e., dummy "auxiliary" cpd. (§14.4) /bangaga-wugag/ 'huge' #109, with "unmarked," i.e., dummy "auxiliary" cpd. (§14.4) /wungag-wo- 'beilch' #176cf.

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More interesting cases with body parts also occur. In #166 we have /-yudum-da- 'chop-brace-of-hose-of-him' (dir. object is noted in §14.6, it is more usual for repetitions (echoes to show compounding than for the first mention, but here perhaps the body-less foregrounded repetition of the verb (body parts and sensory perception are structurally central to the myth). On the other hand, the more typical pattern with cpd. initial in the noninitial
occurrence[s] is found elsewhere in Text A. Thus /-num=dharma-/ 'to track' (lit., 'foot-chase') #198 occurs after a similar expression not referring to body parts, /-wilalhaga=dharma-/ 'to chase, search' (no direct object expressed, see §14.9). Although the latter is also a cpd., it functions here as semantically neutral since the cpd. initial is an inert element whose only effect is to intransitivise (no direct object expressed, see §14.9). Although the latter is also the simple transitive /=lharma-/ 'to chase, follow'. Another case where the precise cpd. with body part initial follows the simple (neutral) form is at the end, where /=anbada-/ 'to burst' #241 is followed by /-gulmun=anbada-/ 'to have one's belly burst' (person is intran. subject) #245 and #246; the same sequence occurs then at #248 ('burst') and #249 ('belly-burst') (direct object, see §14.9). Although the latter is also the simple transitive /=lharma-/ 'to chase, follow'. Another case at #248 ('burst') and #249 ('belly-burst') with reference to a distinct person. We thus find at least some confirmation for our 'to track' (lit., 'foot-chase') #198 occurs after a similar expression (neutral) form is at the end, where /=ambada-/ 'to burst' #241 is intrans. subject) #245 and #246; the same sequence occurs then at #248 ( 'burst') and #249 ( 'belly-burst') (direct object, see §14.9). Although the latter is also the simple transitive /=lharma-/ 'to chase, follow'. Another case at #248 ('burst') and #249 ('belly-burst') with reference to a distinct person. We thus find at least some confirmation for our 'to track' (lit., 'foot-chase') #198 occurs after a similar expression (neutral) form is at the end, where /=ambada-/ 'to burst' #241 is intrans. subject) #245 and #246; the same sequence occurs then at #248 ( 'burst') and #249 ( 'belly-burst') (direct object, see §14.9). Though the cpd. final is /=wlu~il=wanYja-/ (with a place n. coreferential to the 'island' component of the cpd. seems to get rid of the direct object (as with /-wlalhaga=dharma-/ 'search', mentioned earlier).

The other notable cpd. initials are /-yiga-/ 'fire' and the closely related /-anig-/ 'ashes, embers'. The cpd. /-yiga=wa-/ 'to make fire' ('fire' is dir. object) occurs #115, #117, and #119. Though the cpd. final is /=wlu~il=wanYja-/ 'to bite', which makes no sense semantically, the cpd. (also attested in other texts) seems to be a slight reshaping of a putative */=-yiga=ma-/ 'to burn fire' /=-wlu~il=wa-/ 'to bite' and /=ma-/ 'to burn' constitute, with one other root, the rare 4th inflectional verb class, Table 11-5, and may simply have been confused and interchanged because of their identical suffixal paradigm. The cpd. seems somewhat lexical and has no obvious discourse motivation here. /-yiga-/ 'fire' also occurs in /-yiga=dharma-/ 'to chase (follow) fire' #241. It is followed by a somewhat lexicalised Reflexive cpd. with the same root (in "anti-pasive", not reflexive, sense, §10.5), /-yigm=dharma-/ 'to chase by smell' (lit., 'snout-chase-Ref)' #31-#36 (in NMET 16.11.1 none of these repetitions were inadvertently omitted), which shifts perspective to the actor (who "smells" and follows the fire). Similarly, /-anji=jar-/ (/=-anji=yara-/ /#16) in a quotation means '[I]-smelled-embers' (more loosely, '[I]-detected-fire'). In general, then, we find the usual complex set of conditions for usage of cpds.—some alternations suggesting systematic discourse usage (condensation, dropping a direct object, etc.), but also a good deal of lexical or other semantically-motivated characteristics.

17.9 Particles in Text A.

Among particles which occur once or twice in Text A but are not of much discourse importance we mention these: /gada-/ 'oops!' (self-correcting) #68 $12.19
/muga-/ 'indeed' #8 $12.11
/yagA-/ 'but; just' (adversative) #139 $12.10
/yagA-/ 'yes/no' (interrogative) #197 $13.1

A much more common form in Text A is negative /gi=tag-/ , which unlike other negative elements is a one-word "clause" which can have no adjuncts within its scope; it is used in Text A to indicate an unsatisfactory result or failure of the activity in the preceding sequence ('no' in #11, #18, etc., cf. Figure 17-1 in §17.3). See the general discussion in §15.6.

Verbal root forms ($32.2) have been mentioned in §17.3.

We are mainly interested here in particles which seem to have some kind of framing function. These elements, along with their conventional glosses in Text A, are shown here: /gada-/ /laba-/ /now/ #12.3 /#14.2 /'again'/ #12.6 /'and'/ #12.4
/muri-/ /'suddenly'/ $12.7

It is perhaps best to begin with 'and', which differs from the others in that it normally stresses the continuity between preceding and following expressions, particularly clauses (rather than simple conjoined NPs). It occurs regularly in the sequence type 'he-fished and no' [fish-were-jemall] in the first half of the text, #1, #11, #18, #23. It is sometimes used in the type 'he-paddled and; [arrived at] place n.' , as in #68, #72, #76, #83, #94, etc.
omitted in earlier instances of this cycle, e.g., #10, #30, #42, #53, #57, #61, #65, suggesting that the overall cycle shown in Figure 17-1 is more sharply separated into semi-discrete strings earlier in the text than in the more abbreviated and condensed repetitions later on. Other instances in subsequent episodes showing the linking quality of 'and2' are #119, #137, #148, #155, #160, #193, #214, #291 (second occurrence). For the sequence 'and2 and1' (i.e., /mari n/a/) see below.

'And2' (/mari/) is much less common in this text than 'and1'. In specifically conjunctive function (as in /NPI and NP2/ we have no exx. in this text; note that conjunctions are not necessary in lists like that in #45-#50. Instead, 'and1' (along with the related sequence 'and2 and1') occurs in Text A primarily as a marker of discourse segments (see below).

It turns out that 'now', 'again', and to some extent 'suddenly' likewise function in this text primarily as markers of discourse units. Let us see how the various elements interact.

First, we can see that 'now' (/aga/ or reduced /aba/) occurs frequently at the beginning of strings introducing significant new activities and developments. Although the literal meaning 'now' (which we interpret broadly to mean 'and then' in a past tense context, indicating sequencing of closely spaced events/situations) is technically justified by the fact that no large time gaps are present, the actual usage of the particle suggests strongly that it is a framer which puts the spotlight on the predicate in the new string. Thus we get 'now' at #9 with the first mention of paddling in the text, but not in subsequent repetitious cycles of the type 'he-paddled, place n., he-fished, no!', [Fish-were-jabal]. We then get it several times after the repetitious section when the actor M goes across to the good fishing area (#93), and then with NAdj like 'big' and 'huge' indicating progressively increasing size (and abundance) of the fish caught (#37, #100, #103, #106, #109, #122; cf. our remarks at the end of §17.3 on lexical/derivational resources used in this passage. Continuing to the end of Text A, we again find 'now' at #115 (making fire), with 'and1' #119 (second actor W mentioned for first time, smelling fire), #131 (W begins to follow the fire), #137 (W catches sight of M), #172 (W leaves scene of killing), #186 (search party takes off after W), #198 (search party resumes search after finding scene of killing). In these cases, 'now' regularly occurs at the beginning of the string.

There are only a handful of other instances of 'now' in the text, in which 'now' occurs noninitiatively in the string and perhaps has less clear framing effect: #114 (follows 'huge' in context of increasing size of fish), #131 (second occurrence, following verb in string also begun by 'now'), #161 (string-initial, but in middle of a group of strings on same theme), #207 (between adverb and verb), #241 (after verb and onomatopoeia), and #244 (after onomatopoeia). The other common framing particle in this text is 'again' (/a-aba/), which effectively replaces 'now' at the beginning of noninitial instances of the repetitious cycle 'he-paddled, place n., he-fished, no!', [Fish-were-jabal' and its variants: #14, #42 (preceded by verbal root form), #52, #56, #60, #64, #68, #72, #75 (where no pause occurs between end of one cycle and beginning of another), #98, #101. It is string-initial and used before the motion verb in these instances.

There are only a couple of instances of 'again' later in the text: #154 and in the broken-off string #156 in a narrative series of identical punctual verbs (but 'again' is not needed and indeed infrequent in such stylised sequences, cf. #31-#35 and other series without particles); and #178 in a problematic instance in a quotation apparently emphasizing W's continuing beheading.

The particle 'suddenly' (/ara/) is not, like 'now' and 'again', characteristicistically used to set off paragraph-like groups from each other. Instead, 'suddenly' is a local framer which dramatizes the immediately following sequence; it is more emphatic than 'now'. Typical exx. in Text A are #144 ('suddenly he-hid-behind-tree'), he-followed-saw-male-flies and #164 ('suddenly problematic case in #51. The translation 'suddenly' is perhaps not entirely correct but is as good as any other. (Another interesting and important particle, /yn/ or /yn ga/, does not happen to occur in Text A; see §12.7.)

It goes without saying that the framing effects of some of these particles interact functionally with intonation contours (§17.4) and with other framing devices. For example, 'now' as string-group framer does not co-occur with narrative high monotone (HM), 'again' co-occurs with them sharply profiles character, but 'and,' as a predication linker often comes at the end of a HM echo string.

Our last comment here is on 'and2' (/mari/) as a framer in Text A. Even including the sequence 'and2 and1' (/mari n/a/), it is less common in this text than 'now' or 'again'. Simple 'and,' occurring conjointly describing dramatic, closely related actions, and at #173 linking a motion verb with a verb of sitting. We get 'and2 and1' in #206 as a string-group framer, #211 in the middle of an intonation string but preceding an important new verb, 'he-burst' and again #51 in a strongly intermediate between 'suddenly' (highly dramatic, local framer) and 'now' or 'again' (marking beginning of new section with low to moderate dramatic quality).
Appendices

APPENDIX A

Because of space pressure, the present discussion of English interference in Nunggubuyu will be limited in scope, and based mainly on borrowings and code-switchings visible in the texts.

Our narrators for these texts were elderly and middle-aged persons whose English ranged from very little to middling, depending on generation. Younger persons living at Numbulwar have learned English from schools, contacts with resident whites, films, etc.

Forms of "English" in the area include the standard Australian spoken by virtually all resident whites and used in schools; a creole spoken in various forms in the region, particularly at nearby Ngukurr community (formerly Roper River Mission), now often as first language; and a range of idiosyncratic pidgins or jargons spoken as contact languages by Aboriginals not fluent in the above, based on the standard or creole forms. The creole as such is not well-established at Numbulwar, especially now that some groups of North-East Arnhem Landers (speakers of Ritharrngu, etc.) have left Numbulwar. The Ngukurr creole has been described in a number of publications by John Sandefur published by the Summer Institute of Linguistics, Darwin branch, with accompanying cassettes.

The texts in NMET include many brief code-switched segments, often functioning as glosses for the benefit of the linguist, and thus often co-occurring with more or less synonymous Nunggubuyu phrases. Such code-switches, and many borrowings (showing some formal assimilation), are generally underlined in NMET, so it is easy for readers to locate them. To ease comprehension, much of the code-switched material has been presented in conventional English orthography even when pronounced in a distinctively creole fashion. Hughes' texts, TNT and MT, have edited out English material. We now comment on particular types of English interference, with emphasis on borrowings rather than code-switches.

A.1 Nouns and NPs.

English nouns used in Nunggubuyu generally take NCinfl prefixes (§4.7-8) and case suffixes under the usual rules. Number marking (§4.15), including Pl reduplication (§4.14) is possible but not
as reliable. Forms consisting of a simple English stem without affixes can be taken as code-switches especially if the context would normally require affixes for Nunggubuyu words, but the status of such forms may be ambiguous since NGA1 prefixes are often omitted, especially with nouns in focal or new-information usage ($4.8$), and since the zero Nominative case is used in several major syntactic functions ($4.39$).

Assignment of noun-class (NC) to borrowed nouns is fairly predictable. Nouns with existing (near-)synonyms in Nunggubuyu take the status of the borrowed word. Exx. are /na~lana-mu/ '4.4.2 (cf. /lana-mu/), /na-munggur/ '4.4.2 (cf. /munggur/,) in NGA class; /na-catfish/ 18.4.3 (cf. /munggur/), /na-class/ borrowing like /na-lana/ in NC at 113.3.2 and 16.13.1 (cf. /a-munggur/ 'excrement', /a-gallipot/ 9.4.3 and with pronominal prefix 143.12.1 (cf. /lana-munggur/, /a-lana-b/ 'bolly' from creole (cf. /lana-munggur/, /a-lana-munggur/ 'pandan' with local $/a/$ for $/a/ 155.1.2ff. (cf. /lana-wuy/) and /a-lana-b/-yl/ 'like potatoes' 113.6.3, 113.8.1 (cf. terms for similar root foods like /a-ba:bulu-jinYun/ /ba:bulug/ buffalo 162.1.1 (cf. /wu:bulu-jinYun/), /ana~gili/ 'bush time' before settlement at Numbulwar (cf. /guli/), etc.

In addition, a number of English-style compounds have become reasonably productive like Allative-Dative /-wuy/, Locative /-u/; Ablative /-a/; Peressive /-wa/, Similative /-ya/, and Relative /-in/ ($4.20ff.$). Exx. of postpositions ($4.32$; $12.21$) are /medicine~binnytun/ 'real [good] medicine' 134.1.3, /true~bgul~maga~/ 'strictly truck' with two postpositions 164.3.5, and /good~ucker~maga~/ 'if good food!' 103.11.2. Overt number marking involving HumSg /-yinYun/ or /-wu/, Du /-wa/, and PI by prefixing /mi/- or by reduplication (P), is not consistently applied. If formally pluralised within the stem, locational words take reduplication rather than /m/-. HumSg suffix is found in /ana~lana-munggur/ 'medicine man, curer' 13.2 (a well-assimilated stem), /na-police~munggur/ 'policeman' 95.3.1, 95.2.2, and /ana~police~munggur/ 'married man' 166.18.1. Du /-wa/- is fairly freely used: /dreaming~ba~/ 126.11.1, /clan~ba~/ 126.11.2. It is also used for /ana-munggur/ 'king brown snakes' 20.14.3. -Sg often but not always follows normal rules for choice between monosyllabic (with initial stop) and biliabial forms: /na~ji~/ 'slater, nurse's' 139.1.4, /na~gi~jih~d~an/ 'Christians' 162.16.4, /ana~b~g~f~ella/ 50.2.2, /ana~b~g~f~ella/ 50.3.2, etc. In the biliabial type the second vowel in the reduplication need not be identical to the first vowel, as in native words, but pronunciation is variable. Sometimes the full stem is repeated: /ana~b~g~f~ella/ 'old bell'.

Semantically human nouns take NC based on ANA, as expected: /ana~b~g~f~ella/ 'of Old Bob' 72.5.3, FSG /ana~b~g~f~ella/ 161.15.1, PI (or WARA) /ana~b~g~f~ella/ 161.17.2, cf. also 9.1.4 (white men) and 130.5.3 (doctors). Dogs may be treated as WARA NC or, if personalised (as with 'Rusty' 162.9.3), or in their workstation as WARA NC as a food noun, as in /wara~baba~ /wara~baba~ /pup/. Another marginally human category is that of 'devils' (or 'ghosts'); hence /ana~b~g~f~ella/ 'Old Bob' 72.5.3, /ana~b~g~f~ella/ 'Old Bob' 72.5.3, /ana~b~g~f~ella/ 161.15.1, /ana~b~g~f~ella/ 161.22.4 in ANA class, showing the same fluctuation seen with native synonym /baug~a/.

In many exx., already listed, an English complex of more than one word is treated as a unit in Nunggubuyu, with one set of prefixes and one set of suffixes flanking the whole sequence. Further exx. are /ana~song/ 9.4.3, 29.3.5, /ana~lana~wu/ 'of the law [traditions]' 54.1.4, /a-trouble~wu/ 'to trouble' 47.9.6, /ana~work/ 161.18.5, /ana~load/ 161.18.5, /ana~dreaming/ 9.11.5, 30.3.4 and /ana~dreaming/ 19.1.2, 54.2.2 (but WARA class form 29.11.2 referring specifically to dog dreaming, i.e., dog terrors). ANA is also the usual class noun for many place nouns, except for the food terms, which are ANA1 for concord (Table 9-14), except for the terms for leaves, flowers, and biliabial forms:

APPENDIX A

APPENDIX A

APPENDIX A
NGer prefixes (§6.7, §4.9) are not commonly applied to borrowed noun roots. However, alongside /ana-timber/ 161.18.4 we have derivative /wu-timber/, see as /ana-wu-timber/ 161.33.6. The inner prefix resembles A class NGer prefix /u/, which occasionally behaves like /wu/—usually with red-dawn acts like vowel-initial morpheme, hence combines with /u/- to give /wu-/ by phonological rule P-46. The /w/-initial treatment tends to apply in cases where the derivation is opaque with morpheme-boundaries fuzzy, rather than in productive uses of NGer prefixes to give part-of-whole derivatives. Similarly, neologisms /ana-wu-liva/ 'paper money' and /(ana)-wu-gugu/ 'coin' money have been created, using native roots /liva/ or /gugu/ 'paperback' and /gugu/ 'stone': here the derived status is formally apparent but as with /wu-timber/ the semantics of the derivation are unclear.

NAdj (adjectival nouns, §4.2) are often borrowed from standard or creole English. The ending /-bala/ /-fella/ is common in creole and is sometimes imported /ana-wulaba/ 'old one' 163.20.6, cf. 65.15.6, /ana-gubatula-yun/ 'medicine man' ('doctor-fella') 1.3.2.

However, this ending is no longer commonly imported; contrast the last ex. with /wu-doctor/ 'modern doctors' 138.5.2. The form /wu-salt/ pronounced /allaba/ is a frozen expression meaning 'early in the morning' 30.5.2. Note, however, /gulaba/ 'dear' 85.1.5.

Adjectives are now often borrowed in simple form or with /-one/. English color adjectives come in as /wu-3.1.5, cf. 132.4.5. Similarly, /wu-salty/ 'it is salty' 163.18.4 shows predicative NAdj form based on simple borrowed stem. This may also be the case with /wu-small/ /it was smelly/ 32.8.5 (unless this is really a NGer form with /-one/ prefix), Exx. with /-one/ are /good-wu-one/ 166.2.2, /great-one/ 127.2.1, /wet-wu-one/ 127.3.1, /colorful-one/ 127.4.2.

Number-one /wu-salt/ 'best', is sometimes taken by Nunggubuyu as belonging to the same pattern; the full form occurs 127.3.4, but by analogy to the others we can also have back-formed /wu-one/.

Another frequent expression, /wu-one/ 'excellent, best', is sometimes taken by Nunggubuyu as a frozen expression meaning 'best, excellent', as in 127.2.2. Usually the forms with /-one/ are less well-assimilated borrowings and usually avoid native affixation.

Another ex. of predicative /wu-NAdj/ this time a human noun with subordinating suffix, is /wu-assistant marginal/ 'back when he was an assistant' (§10.8-9) are not common with borrowed stems but are not impossible, hence Fact /wu-maryla-wa/ 'cause to become deaf' 66.3.3 from a creole root.

Sometimes a regular English noun allows NAdj treatment with variable noun class. As a borrowing. Thus /devill-devil/ (pronounced /dibuldlbu~/) is usually a common noun (Nc) of Waria or A class, but is a predicative NAdj /wu-devill-devil/ /it's eye/ was ghostlike/ 111.5, /wu-medicine/ 139.10.1 is a nonpredicative NAdj agreeing in noun class with a tree sp. On the other hand, English pick and itch come into Nunggubuyu as nouns (127.2.1, 127.2.2).

Reflected in the frequent ambiguity between borrowed and code-switched nouns, English noun-forms do not always obey Nunggubuyu syntactic rules with regard to affixation. For example, in 103.2.5...
Factitive /-w1a-/ (§10.9) is seen in /-butcher-wa-/ 'carve up, butcher (carcass)' 112.6.2, of noun /wara-/ 'butchers, those cutting up carcasses' 112.6.4.

APPENDIX B

B.1 Phonology.

The writer's views on the historical context of Nunggubuyu have been presented in part in Linguistic Diffusion in Arnhem Land (1978, this publisher).

The most significant development in the time since Nunggubuyu separated off from a proto-language resembling Ngandi was a chain shift involving lenition of initial and intervocalic (also post-liquid) lents stop to homorganic continuant: *g and *b > /w/, *dh > /l/, *g > /j/, *j > /y/, perhaps occasionally *d > /z/; also a contextual phonetic lenition of older fortis stops *k, *p, etc., to the presently attested single stop series /g, b, dh d j/ (of which only /dh/ is still usually pronounced fortis, that is, voiceless and long); also deletion in some contexts of old *w, generally before the creation of new /w/ from old *g *b. The present Hardening rule P-18 reflects the alternation of stop with continuant (stop following another stop or nasal), but represents in most cases a reversal of the historical process, with the continuant now basic. *y is sometimes hardened to /j/ or /w/ syllable-finally.

In addition to *w, occasionally other consonants like *n and *t have been lost initially or intervocally. Thus *avum/ 'fly' is related to a word /avum/ which I recorded from a Dhay'yi (Yulnu) speaker; cf. also /(ng)anamba-/ prefix in Table 9-2.

Prefix-Truncation P-35 may have been affected by this, at least in the kin terms /muruyun/ 'elder Br' and /munYunYun/ 'younger Br'; which take prefix /na-/ instead of expected /na-/ (MSg). A form /na-gumuruyun/ for the first of these occurs as a songword and shows an older form with stem-initial syllable subsequently contracted with the prefix after loss of *r.

Some additional contractions are seen historically in verbal inflectional suffixes realised as long vowel, though these are not derived as such synchronically. Taking /X/ as root, minus final vowel,
nonhuman class of form *gu- (Ngandi /gu-/), Warnadang /wu-/ etc. In Nungubuyu this class has merged with ANA (*ra-). The merged class has NCinf prefixes based on *ra-, but the corresponding NCder prefix is /si-/ from *gu-, and the basic marker in pronominal prefixes in verbs is /-i-/ from the same source. The two are still distinguished by direct object concord in the verb: the ANAg subclass (Table 9-14), which keeps //-/ as basic object marker, is the old *gu- class, while ANAg subclass (Tables 9-1, 9-13) with basic /-i-/- object marker is the old *ra- class. Such ANAg forms as Lg = ANAg-a /n/ /-i-/ involve phonological contraction from longer forms, here *ra-wu (recall that *r is sometimes dropped), with later analogical spreading of /-i-/- as suffix.

We now turn to number markers. Hung /-y1n/ or /-mun/ (§4.15) is a specialisation of a suffix also seen in other forms as Contrastive /-aym/ in pronouns (§6.8), Absolute /-ym/ for demonstratives (§7.7, with some givenness value in discourse terms), and 3rd person propositus ending /-un/ or /-um/ with kin terms (Table 5-1). Ngandi has /-ym/ as a high-frequency Absolute suffix with nouns, pronouns, and demonstratives, with an additional Contrastive usage with pronouns; Nungubuyu has greatly specialised the usages depending on word-class but some specialisation was probably present in the immediate common language. Moving farther away, at least genetically, Warnadang to the south has a high-frequency Absolute, with allomorphs /-yu/ and /-u/, among others; the suffix is permitted in the otherwise unsuffixed Nominative, and is required with following Locative /-yan/; Mara, which is close to Warnadang genetically, has /-yan(r)/ or /-un(r)/ as Allative or Locative case suffix. It looks like Warnadang forms may not be originally closely related to the Ngandi and Nungubuyu ones.

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B.3 Kin terms.

The important affixes special to these nouns have the following cognates:

2nd/3rd person /-g a/, /-gu/,
3rd person /-g y a/ /-g y um/ /-g y y a/ /-g y y um/ /-g y y um to /-g y y a/, etc.

Nungg. /-ko/, Ritharngu /-ka/.

The last of these correlations is phonologically problematic but could involve the root *-woj *-woj /-yoj /-y oj /-yoj /-yoj. Both the lenition of suffix-initial stops, and replacement of final glottal * by /, are elsewhere attested (Nungg. /-y oj/, 'only, still' §4.32, e.g., Ngandi /-b uj?/), the penultimate change in the derivation is a special case of V-Fronting P-50.

It is conceivable that Ngandi 1st person suffix /-g a/ (1) shows up in Nunggubuyu as the final segment in a few last person kin term forms like /g a r a/ 'mother', cf. Dyadic /g a r a/ /-yoj/, but segmentation is no longer clearcut.

Internal etymology: note that /b ib/ 'MoBr' (1st person form) is related to /-g a/ in 2nd and 3rd person forms of 'Mo' (Table 5-1, Bii and Biii).

Suppletive Dyadic form /g a l /-yoj/ for pair involving MoBr (Bii in Table 5-1) is related to suppletive 2nd/3rd person root /-g a/ in Ngandi and a similar form /-g a/ in Manarrayi. Suppletive Dyadic root /-g a w a n / and variants for pair involving Fa (Aii in table) is probably not really suppletive, just a disguised variant of the basic 1st person form /b a b a/. (The 2nd/3rd person root for 'Fa', /-m a r a/, occurs in all forms for Fa in Ngandi. Dyadic /a l /-yoj/, 'spouses' (Dii in table) may be related to a kind of dyadic derivational suffix /-g a l / /-g a l / §14.22, with /g a/ perhaps under analogical influence from /-g a l / /-g a l / /-g a l / 'some' other prefixed root.

The alternation /n i-g a/ 'man's son' and /n i-g a /-yoj/ 'man's daughter' (Aiv-1iv in table) suggests /n i-g a/ with final stop as masculine derivational prefix vs. /n i-g a/ without /g a/ as feminine. The regular NDg prefix are /n g a / and /n a r i-g a /, both with /g a/, the effect of which is to induce Hardening P-18 in following morphemes (hence the root in the forms cited could be /-g a/). A striking comparison is seen with similar Mara forms: /n i-g a / /-j a r a/ 'son', /n i-g a /-yoj/ '(some) other', cf. Mara /n i-b a /-yoj/ 'sister's son' and /n i-g a /-yoj/ 'sister's daughter'. Though the roots are probably cognate (or at least involve irregular reshaping), the specific alternations involving frozen noun-class (gender) prefixes are identical (allowing Mara /g a/ as a reflex of /g a/).

B.4 Pronouns and demonstratives.

The basic personal pronouns (Chapter 6) can in many cases be directly compared to Ngandi counterparts. Nungg. /-g a/- or /-g a/-, the root to which noun-class and person markers are added to form pronouns, shows up in Ngandi as /-k a/- /-k a/-, etc., for 1st/2nd persons with a possibly distinct 3rd person root /-w a/- /-w a/-, both Nungg. Mdu /-g a/- and Mpi /-g a/- are matched by Ngandi /-g a/- /-g a/-, etc., for last/3rd persons. The Ngandi lacks a show pattern to Pdju /-r a/- /-r a/. Nungg. and Ngandi agree in lacking the /-k a/- root morpheme ( /-g a/- /-k a/- /-k a/- /-k a/-, etc.) in BwP1 pronouns. Nungg. /-w a/- /-w a/-, Ngandi /-e r a/-, though Ngandi BwMdu /-o w a/- suggests that there may have been a morpheme *-w a/- here subject to contraction.
As for 1st/2nd person prefixes, Ngandi has forms beginning in /ni/ for 1Indu and 1ExPl vs. /i/ in 2nd person forms, Nungg. has initial /n/ corresponding to both Ngandi /ni/ and /i/, suggesting that Nungg. has partly levelled out consonantism (in Nungg., /n/ is rare as stem-initial morpheme and does not occur initially in and prefix). The absence of *-ni- in 1Ex and its presence in 2Du/Pl forms permits retention of the opposition among persons in the independent pronouns, but consonantal leveling has produced some homophony in pronominal prefixes used with verbs, hence /nur-/ as both 1ExPi and 2Pl intransitive prefix, a series.

Nungg. and Ngandi agree in having /n/ as initial nasal in 1Sg /n-ga/ and in 1ExPl forms.

Nungg. Oblique suffixes /-a/, /-i/, /-w1/- are etymologically problematic at this time.

Nungg. Contrastive suffix /-yan/ was a parallel in Ngandi, where Absolute suffix /yan/ can have contrastive sense when used on an independent pronoun. For specialised cognates in other word classes see p. 629, above. Nungg. Emphatic /-wa/ §6.9 matches a similar Ngandi suffix /-wa/.

Demonstratives are difficult etymologically, even the four basic roots in Nungg. being apparently innovations. Ngandi has Proximate /-ni-/- vs. Nonproximate /-ma/-, other distinctions being made by affixes. It is possible that /-ma/- is related to Nungg. Immediate root /-da/-.

The noun-class affixes used with Nungg. demonstrative pronouns (DemPro) seem to be based on a combination of regular nominal NC prefixes plus the dual and plural suffixes used with personal pronouns. In Ngandi these suffixes occur with personal pronouns but not DemPro, and it is not clear why Nungg. inherited them only with personal pronouns and extended them to DemPro.

However, the MSg and FSg suffix with DemPro is /-yi/, which has no pronominal or noun-class origin. It is probably identical to Ngandi /-ki/, a fortis variant of locative case suffix /-gi/ used to form locative form in /pa-ki/- 'there'. The reconstruction is *-kuy, assuming that Ngandi case suffix /-gi/- is related to Nungg. All-Dat /-wuy/ (*-guy). It appears that Nungg. was under pressure to develop at least a partial noun-class suffix system with personal pronouns. Locative DemAdv ending *-kuy was reanalysed as MSg/FSg, while other innovative suffixes like MANA class /-ma/-, ANA class /-ni/-, and WARA class /-wa/- were based on previously existing pronominal prefixes for these classes with a partial shift to /-i/-vowels under the influence of /-gi/- from *-kuy.

Nungg. now has Loc DemAdv in /-jI/- or /-gu/- depending on root (§7.12). For /-jI/- compare Ngandi Allative DemAdv /-xi/-, which becomes /-xi/- by phonological rules in two of the four possible combinations. Nungg. /-gu/- could possibly be a distinct reflex of *-kuy (preceding paragraph). Some analogical interaction involving vocalism of *-kuy and *-a/- may have taken place.

Absolute /-yan/ §7.7 has a counterpart in Ngandi Absolute /-yan/.

Ngandi permits wide usage with nouns, while in Nungg. the nominal form has been specialised as Nungg. suffix, as noted earlier.

Allative DemAdv /-guni/ §7.13 may involve Loc /-gu/-, mentioned above, plus another element obscurely related to ANA class suffix /-mi/-, though details are obscure. Concrete /-wu/- §7.6 is etymologically problematic.

Conterpital /-ala/- §7.5 is a specialised reflex of Allative /-wa/-, and Ngandi /-wa/- /-wi/- §7.5 may be a secondary spin-off of some other demonstrative forms, though I cannot work out details. Transverse /-wa/- /-wi/- §7.5, which also has occasional definite meaning but could conceivably also represent the same element seen in counterparts, already mentioned, are /-wa/- /-wi/-, Nungg. roots Prox /-ya/-, Anaph /-u-ba/-, and Araph /-a-ba/-, are very problematic. We mentioned above that /-da/- could possibly be related to Ngandi /-na/.

Another approach might be to consider the possibility of a major reinterpretation of earlier forms of the type /NC-ROOT/ as having a *-gu/- have been reanalysed as DemPro, with *-ku/- (now /-gu/-) now interpreted as NC ending.

Suppose, that, in roughly the same way, a sequence *-a/- consisting of ANA class prefix *a- (earlier /-a/-) and Proximate root *-u/- (cf. Ngandi /-a-n/-) was reinterpreted as ending in ANA class suffix /-a/-, the link being the sharing of /a/- in this form with the more common ANA prefix form /-a/-, /-a/-, this reanalysis, "creating" a new ANA suffix /-a/- used only with demonstratives, would have been part of the larger process of creating NC suffixes for this word-class (along with reanalysis of Loc *-kuy as MSg/FSg suffix, and the further analogical creation of new MANA and WARA suffixes). Such reanalysis of /-a/- might have entailed reanalysis of *-a/- as Proximate root, eventually reading to Nungg. Prox /-ya/-, where the /-y/- is only speculative, but if correct would account at least for the basic formative impulse leading to the creation of new roots.

B.5 Verbs: pronominal prefixes

The most significant structural features of the pronominal prefix system (Chapter 9) are the hierarchically rather than case-determined order of elements (in transitive prefixes), usage of Inverse morphology to distinguish inverse from direct combinations with the same pronominal components, and distinction of A and B series for all prefixes with choice among series depending on tense, aspect, etc. The point of departure seems to have been a very old system involving accusative *-n/- and dative *-gu/- merging into allomorphs of a single Oblique suffix, the affected pronominal being interpreted as an indirect object in unmarked verb forms, but as dative if a "Benefactive" marker was also present (Nungg. Benef. /-a/- is rather old, cf. Ngandi and Rembugg /-bar/-; other languages such as Mara have similar structures with a non-cognate Benefactive morpheme.) The choice between *-n/- and *-gu/- allomorphs was based on phonology, *-n/- after vowel and *-gu/- after consonant (1Sg *-n- but 3Pl *bar-gu/-, etc.). This type of system can be shown underlie
not only Nunggubuyu and Ngandi, but also the Mara/Alawa/Warningur group to the south (hence presumably also Manfarayi, which however I have not analysed in this connection). See J. Heath, "Substantival hierarchies," pp. 172-90 of Dixon, ed., Grammatical Categories in Australian Languages, this publisher, 1976 (esp. p. 176ff.).

In Ngandi and Nunggubuyu, a previously incipient trend toward direct-inverse patterning has been completed. Ngandi generalises /-gu-/ as Inverse morpheme while Nungg. generalises /-N-/ (*-n-), these being of course the original allomorphs of the Oblique. These two languages also fill out the system by introducing markers for the various nonhuman classes into the pronominal prefix system (contrary Mara, etc., with class prefixes on nouns but a single third person form in verbs). Thus an old form like *n-a-n- 'me' (used for 2Sg--1Sg, possibly also 2Sg--3Sg) has been elaborated by adding non-class markers to specify the subject more precisely, hence ANA class subject /n-a-n-gu-/ (*n-a-n-gu-) in Nunggubuyu and A class subject /n-a-n-gu-/ in Ngandi. The use of nonzero 3rd person elements makes the direct-inverse patterning more apparent, since the order of elements is clearly dependent on a pronominal hierarchy rather than case, and since //-/ or /-gu-/ in the two languages can now be taken as a relational marker specifying the relationship between the two co-occurring pronominals rather than being a simple case marker for one of them.

In connection with the dropping of *-gu- as Inverse marker in Nungg., some reshaping of preceding pronominal forms takes place, hence 3PL object form *bar-gu- drops the *r to become /w2 a-N-/. Compare 3PL intran. /w2-an-/ to, trans. 3PL--~/w2-an-/ etc., where *r survives as *r- for the additional vowel compare NOINF forms like Pl /war-a-/ (war-a/) ANA class /ana-/ (*[~Jan-), etc.

The usual B morpheme is /-w2an-/ added to an A series form. However, for 2Sg we have suppletion in which the A form is based on /w2an-/ and the B form is /ba-/ (w2 a--), or /a-. These latter seem to be variant reflexes of something like *ba-, and since /w2an-/ should reconstruct as *ban-it may be that all the B morphemes are related. It might be, then, that /ba-/ (w2 a--), and /a-/ for 2Sg are not original 2nd person morphemes, just a B morpheme with zero person marker.

Ngandi has no parallels here. However, Anindilyakwa has A/B oppositions, sometimes involving an element /-gu-/ in a position similar to that of /-w2an-/ in Nungg. We noted before Anindilyakwa /-g/a/ as a possible cognate of archaic Nungg. Dual suffix /-w2y-a/, now usually /-w2y-a/ in Nungg. In addition, a number of mainland languages have something like an A/B series distinction in pronominal prefixes, at least for 3rd person. For example, in Mara there is a prefix /-w2a-~ (becomes /-ga-~ after stop or nasal) used in 3rd person pronominal prefixes only in Present tense (and Evitative); in Mara this forms part of a functionally complex verbal system also involving some special 3rd person inflectional suffix forms. There is thus a set of probably cognate morphemes at the intersection of pronominal and tense/aspect/mood/negation inflection/inflexion, a thorough historical study would bring out extensive differences in function among the cognate morphemes, probably involving functional adaptation within rather different language-specific verbal systems.

We noted at the beginning of B.4 that Nungg., has merged *w2y and *n into /a/ as initial consonant of several important pronominal forms. This merger applies also to pronominal prefixes in verbs.

B.6 Verbs: derivational affixes.

Prefixes: we have mentioned that Benef. /-a-k-/ from /-bak-/ has cognates in Ngandi and other languages; Comit. /-a-n-ju-/ $10.3 and the more 'together' prefixed /x10.10 are etymologically obscure; Multi-/w2-k-/ and /w2-a-wa-~ (match Ngandi /gara-/ and rdp. /gara-gara-/), while Multi-/x10.15 is a language-specific grammatical specialisation of a root meaning 'heap'; Refl suffix /-/-1 matches Ngandi /l-1/- or /y1/-, the latter allomorph being the oldest one (cf. /y1/-, /dh1/-, etc., in many other languages); Recip. /-w2l/- has Ngandi counterpart /y1/- (and extended variants), where I suspect that the old stem form is in Ngandi (Nungg. does not like syllable-final /y1/-, for one thing, so a shift ty > /y1/- is reasonable--see below, B.7--), with subsequent assimilation of the stop also within reason); Caus. /-/g/a-/ may be a composite of now unproductive abstractive nominaliser *-j (§14.16, cf. §14.15) plus Pactive /-x15-/; Inchoative/-ma-/ has cognates in Rembarrnga and some other languages though not in Ngandi (which has borrowed /-th1/- from Yuungu--this shows up in Nungg., in a few possibly monorachic forms, /10.8 s. v. /dh1/-); Pactive /-m-a-/- itself may be related to Ngandi Causative /guba/- or /-x15-guba/-, the fuller allomorph /-n-/-guba/- apparently being an abstractive nominaliser *-n/- plus /guba/-.

B.7 Verbs: inflectional suffixes.

The paradigms of Chapter 11 show inflectional cases each with particular paradigms. Many of these classes have exact counterparts in Ngandi, as follows (class labels based on J. Heath, Ngandi Grammar, Texts, and Dictionary; this publisher, 1978):

Nunggubuyu

<table>
<thead>
<tr>
<th>Ngandi</th>
<th>Nunggubuyu</th>
</tr>
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<tbody>
<tr>
<td>A1</td>
<td>4a, 6b</td>
</tr>
<tr>
<td>A2</td>
<td>1, 2</td>
</tr>
</tbody>
</table>

Nungg. A1 consists chiefly of forms based on /ma-/- to get, pick up, take/-; Ngandi has a verb /ma-/- of similar meaning and with a cognate paradigm. The small number of stems ending in /a/- in the two languages means that there are no substantial "classes" of such stems for comparison. Nungg. /amaru/- 'to abandon' has Ngandi cognate /wathu/- with similar paradigm. Other comparisons are difficult because of absence of exact cognates, and apparent analogical reshaping of the paradigms influenced by larger classes. Nungg. N class corresponds to Ngandi class 5, which has a peculiarly similar augment /-m-/, hence Past Continuous /-m-di/- matching Ngandi /-pa-di/-.

Other comparisons involving individual roots or very small groups: Nungg. /lama/- and Ngandi /dho-/- 'to chop'; Nungg. /lama/- and Ngandi /jala-dho/- 'stand' (hala2); Nungg. /iy1/- and Ngandi /iy1/- 'to sleep' (hala2); Nungg. /jama/- and Ngandi /jama/- 'to bite' (hala2); Nungg. /jama/- and Ngandi /jama/- /to burn' (hala2).
exceptions in Past\textsubscript{\text{2}}; this assumes that Ngandi (where verbs ending in \textit{u} have very different paradigms from those ending in \textit{i}) is archaic, but it could be that the Nungg. situation is more archaic on this point.

g) some augmented forms have been reduced, by a combination of analogy and optional phonological processes, hence Nonpast\textsubscript{1} =\textit{na}-\textit{r} = \textit{will get} vs. Nungg. Future /\textit{-mi-ya-n}\textsubscript{2}/ (Nungg. A\textsubscript{2} class), Nungg. Nonpast\textsubscript{2} =\textit{na}-\textit{r} = \textit{will tread on} vs. Ngandi Future /\textit{-bem-ma-ya}/, etc.

There are a number of other differences between Nungg. and Ngandi, e.g., in details of distribution of various Evitative allomorphs, but unraveling the historical relationships cannot be attempted here.

The \textit{N}A\textsubscript{2} class, which is basically the monomorphemic A\textsubscript{2} class (of whose three members two have Ngandi cognates), has apparently expanded greatly to become a productive class, especially for stance verbs (this is also true of Anindilyakwa).

The RA class, which is fairly productive for verbs of carrying, is a probable Nungg. innovation. The YA class is also hard to connect with classes in other languages, though the somewhat similar irregular verb =\textit{ya}/ to 'spear' may be archaic.

B.8 Postpositions.

The correlations I know of are these: 
-\textit{n}-\textit{ya}/ 'still, only'...... Ngandi /-\textit{bug}/, Ritharungu /-\textit{buki}/, Warndarang & Mara /-\textit{bug}/;'-
\textit{n}-\textit{indiyu}/ 'very'...... Nungg. /-\textit{bini}/, Ngandi deriv./-
\textit{n}-\textit{arawindi}/ 'many'...... Nungg. /-\textit{arawindi}/, cf. Nungg. /-\textit{y}-/ paradigms, form
\textit{n}_\textit{aj}/; 'if'...... Ngandi /-\textit{ya}/, 'will get' vs. Ngandi Future /-\textit{mi-ya-}\textit{n}/ (Nungg. A\textsubscript{2} class), Nungg. Nonpast\textsubscript{2} =\textit{na}-\textit{r} = \textit{will tread on} vs. Ngandi Future /\textit{-bem-ma-ya}/, etc.

B.9 Minor compounding and similar elements.

A few correlations involving special cpd. initials (Table 14-1):
-\textit{ha}/ 'mouth'...... Ngandi /\textit{dha}/, Ritharungu /\textit{ha}/, Warndarang & Mara /\textit{ha}/;
\textit{h}-/ 'root'...... Ngandi /\textit{be}/, Warndarang /\textit{mai}/;
\textit{l}-/ 'side'...... perhaps Ngandi /\textit{li}/, 'cheekbone';
\textit{w}-/ 'name'...... perhaps Warndarang /\textit{w}/, Warndarang /\textit{m}/, postpos. form
\textit{n}_\textit{s}/ 'guts'...... Ngandi /\textit{d}/, Ritharungu /\textit{d}/, Warndarang /\textit{d}/;
\textit{g}-/ 'tooth, edge'...... Warndarang /\textit{g}/, 'nail, tooth';
\textit{y}-/ 'face'...... perhaps frozen segment beginning Ngandi /\textit{g}/, 'tooth' and
\textit{g}-/ 'egg'...... Ngandi /\textit{g}/, 'egg';
\textit{g}-/ 'water game'...... Ngandi /\textit{g}/, Ritharungu /\textit{g}/;
\textit{m}-/ Comparative...... perhaps Ngandi /\textit{ma}/, 'more'
\textit{n}-/ 'name; throat'...... Ngandi /\textit{n}/, 'name';
\textit{g}-/ 'behaviour'...... Ngandi /\textit{g}/, 'behaviour';
\textit{y}-/ 'mood, attitude'...... Ngandi /\textit{y}/, 'mood, attitude';
\textit{n}-/ 'break';...... Ngandi /\textit{n}/, Ritharungu /\textit{n}/, 'milk';

 exceptions in Past\textsubscript{\text{2}}; this assumes that Ngandi (where verbs ending in \textit{u} have very different paradigms from those ending in \textit{i}) is archaic, but it could be that the Nungg. situation is more archaic on this point.

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\textit{n}_\textit{aj}/; 'if'...... Ngandi /-\textit{ya}/, 'will get' vs. Ngandi Future /-\textit{mi-ya-}\textit{n}/ (Nungg. A\textsubscript{2} class), Nungg. Nonpast\textsubscript{2} =\textit{na}-\textit{r} = \textit{will tread on} vs. Ngandi Future /\textit{-bem-ma-ya}/, etc.

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\textit{g}-/ 'water game'...... Ngandi /\textit{g}/, Ritharungu /\textit{g}/;
\textit{m}-/ Comparative...... perhaps Ngandi /\textit{ma}/, 'more'
\textit{n}-/ 'name; throat'...... Ngandi /\textit{n}/, 'name';
\textit{g}-/ 'behaviour'...... Ngandi /\textit{g}/, 'behaviour';
\textit{y}-/ 'mood, attitude'...... Ngandi /\textit{y}/, 'mood, attitude';
\textit{n}-/ 'break';...... Ngandi /\textit{n}/, Ritharungu /\textit{n}/, 'milk';
Genetic subgrouping.

As explained in previous publications, Nunggubuyu is apparently about equally close genetically to its neighbours to west and east, Ngandi and Anindilyakwa. We do not yet have substantial published materials on the latter language.

Of other languages along the coast, the group containing Mara and Warndarang to the south is reasonably closely related but less closely than Ngandi. The analysis of pronominal prefixes (B.5) is supportive of this analysis. It is less easy to work out the historical relationships among verbal inflectional suffix paradigms, but there are some striking parallels, e.g., between Nunggubuyu and Mara paradigms for /=na-/ 'to see', and between Nunggubuyu and Warndarang paradigms for Nung. /=lha-/ 'to stand', Warnd. /-jV-/ (citation form /-jUEa/), an auxiliary verb used with stance verbs.

Languages farther inland (Ngalkbon/Dalabon, Ngalakan, Mangarayi, Alawa, etc.) are apparently closely related to either the Nunggubuyu/Ngandi/Anindilyakwa group or the more southern group, but we have not yet done fine-grained historical analysis.

Yuulngu languages to the north, of which Ritharngu and Dhay'yi are most relevant to Nunggubuyu, are more closely related genetically to Central Australian languages than to Nunggubuyu. However, they have been important as sources of diffusional interaction.

APPENDIX C

C.1 J. Heath, Nunggubuyu Myths and Ethnographic Texts.

Note on line references: For this publication, which is mostly Nungg. texts with interlinear translation, along with separate paragraph-length free translations, line refs. are as follows. For Nungg. text we use formulae like 1.4.5, meaning fifth line of Nungg. text in section 1.4 (i.e., section 4 of text 1). Immediately attached interlinear glosses use the same line number as the Nungg. text above them, plus @ (if there is a second line of interlinear glosses, as in the first few texts, we use @ to indicate second line). Material in free translations (TRANS), notes (NOTE), and comments (COMM) show line number counting down from first line of actual segment indicated; thus "1.4TRANS 3" means line 3 of the TRANS for text section 1.4.

At the end of this list of regular errata, we also show the correct transcription of some sections unfortunately unclear in the published volume due to problems with the photography (p. 643).
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>79</td>
<td>12.3TRANS</td>
<td>[add note] * /ŋaŋ jabal/ is more common than /ŋaŋar jabal/</td>
</tr>
<tr>
<td>82</td>
<td>13.1.3</td>
<td>nĩgil-gara=/ nĩgil-gara=/ (with rdp.)</td>
</tr>
<tr>
<td>83</td>
<td>13.9.1</td>
<td>win imai=/</td>
</tr>
<tr>
<td>86</td>
<td>13.14.4</td>
<td>nĩmar=/</td>
</tr>
<tr>
<td>88</td>
<td>13.20.1</td>
<td>nĩmar=-yara=/ (with rdp.)</td>
</tr>
<tr>
<td>89</td>
<td>13.22.3</td>
<td>win/-=</td>
</tr>
<tr>
<td>90</td>
<td>13.27TRANS</td>
<td>&quot;je je...&quot;</td>
</tr>
<tr>
<td>93</td>
<td>13.36.3</td>
<td>mun=/guru=/ (with rdp.)</td>
</tr>
<tr>
<td>94</td>
<td>13.40TRANS</td>
<td>[add notes] a) /ŋaŋ yari=/ b) NDC form from /ŋaŋ/ win-walhaga=/ (transcr.)</td>
</tr>
<tr>
<td>98</td>
<td>14.7.1</td>
<td>winimai=-lha=</td>
</tr>
<tr>
<td>102</td>
<td>section head</td>
<td>14.18</td>
</tr>
<tr>
<td>104</td>
<td>15.6.5</td>
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<tr>
<td>110</td>
<td>16.7.1</td>
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</tr>
<tr>
<td>116</td>
<td>16.9.1</td>
<td>(=madhandi=)</td>
</tr>
</tbody>
</table>

(The is also some material not shown in transcription after /ba-gu/ on this same line; it sounds like /ni=waya/ni-/-ni xxx, niwu=qar=-i=-ni ba-gu/ 'he used fire drill [antipassive Ref.], he put (fire) down there'.)

112 | 16.10.1 | =dhali-walan/-=n/-i=-wali-=-ny=/ (with rdp.) |
| 113 | 16.11.1 | [omit /ŋi-yan/ni-ylhaga=/lharim/-n/-, inadvertently repeated in transcription from 16.13.2-3] |
| 116 | 16.10TRANS | Present tense forms |
| 118 | 16.17.8 | =guru/-ni, =guru=/ (with rdp.) |
| 119 | 16.19.2 | [sin= 'whatchamacallit? before /ga=liyumi=wny'/] |
| 120 | 16.20.1 | [same correction as for p. 112, 16.10.1] |
| 117 | 16.23TRANS | There is more common than /ŋaŋ/ |
| 119 | 17.2.4 | "mu=mumu=/ (omit ") |
| 122 | 17.9.6 | =fira/ |
| 125 | 17.16.4 | =manda= |
| 128 | 18.6.3 | =wiri-ma-=-/ |
| 131 | 18.13.2 | [add /yai=mu=-wuy/ 'this way' at end of line] |
| 132 | 18.13.5 | wu=madi=-n/-yw |
| 143 | 20.5.2 | =gilyiri/-gilyiri |
| 144 | 20.5TRANS | Gilyiri= gilyiri |
| 159 | 24.1.2/3.5 | =garar-ba=/ (from /gara-ba=/) |
| 160 | 24.3.6 | " |
| 161 | 24.4.1/4 | " |
| 165 | 26.2NOTE | "line 1 of " |
| 192 | 34.4.19 | Big [2nd of 2] |
| 193 | 34.8.3 | /galiw=/ |
| 201 | 36.5TRANS | It did that, |
| 203 | 37.4.6 | mamyabi=/ |
| 204 | 37.6.7 | mawugamarinu= |

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<td>270</td>
<td>55.3.3</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

[unclear word with slightly open up to it sounds something like /n=yyaka/-ni=yn=ynu=/, "he who was running" or [saw him running"] |

276/7 |

[for restoration of material lost by photographic lapse, see below, end of C.2] |

284 | 60.2.3 | " |
<p>| 296 | 65.5.10 | &quot; |
| 309 | 69.5.3 | &quot; |
| 310 | 69.6.2 | &quot; |
| 311 | 69.7.3 | &quot; |
| 313 | 69.12.7 | &quot; |
| 315 | 69.16.2 | &quot; |
| 321 | 71.13.4/5 | &quot; |
| 333 | 71.18.2 | &quot; |
| 334 | 71.2TRANS | 3 |
| 336 | 71.28.1@ | &quot; |
| 339 | 75.2.6 | &quot; |
| 340 | 76.2.3 | &quot; |
| 342 | 77.2.1@ | &quot; |
| 347 | 83.1.3 | &quot; |
| 348 | 84.1.5 | &quot; |
| 350 | 88.3.1/3 | &quot; |
| 351 | 89.1.6 | &quot; |
| 352 | 89.1TRANS | l |
| 359 | 93.2.1 | &quot; |
| 362 | 95.4TRANS | 2 |
| 366 | 97.1.2 | &quot; |</p>
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<td>168</td>
<td>=waba-</td>
<td>162.13.4</td>
<td>162.13.6 (=malbi=ba-)</td>
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<td>170</td>
<td>waba-r</td>
<td>[also /waba-r/]</td>
<td>ar-abulu</td>
</tr>
<tr>
<td>182</td>
<td>=wadja-</td>
<td>[list of verbs should be /yala-, /yaba-]</td>
<td>VIntra4</td>
</tr>
<tr>
<td>190</td>
<td>wala-</td>
<td>121.1.2/3</td>
<td>121.1.2/3 (=yala=/hala-)</td>
</tr>
<tr>
<td>204</td>
<td>wala-</td>
<td>=wala=</td>
<td>=wala=</td>
</tr>
<tr>
<td>207</td>
<td>wala-</td>
<td>[prob. A1 instead of A2 class]</td>
<td>[copls. with /-hug-/ alluded to are to be found in 66.3.4, 67.2.2]</td>
</tr>
<tr>
<td>220</td>
<td>walar=bu-</td>
<td>[form with two /s/'s is correct]</td>
<td>anYji-wulawulal</td>
</tr>
<tr>
<td>240</td>
<td>wa-linalulal</td>
<td>anji-wulalulal</td>
<td>anji-wulalulal</td>
</tr>
<tr>
<td>244</td>
<td>wula-</td>
<td>166.18.4</td>
<td>166.18.3 (this correction only line 2 up of entry)</td>
</tr>
<tr>
<td>261</td>
<td>yalajru</td>
<td>na=nja=julu</td>
<td>nw=ji=kalaju</td>
</tr>
<tr>
<td>272</td>
<td>yi=bi-yun</td>
<td>-w=bi-yun</td>
<td>-w=bi-yun</td>
</tr>
<tr>
<td>275</td>
<td>yinag</td>
<td>=hura-</td>
<td>-hura- (line 2 of entry)</td>
</tr>
<tr>
<td>278</td>
<td>yiri</td>
<td>n’ari-rija-yun</td>
<td>n’ari-rija-yun</td>
</tr>
<tr>
<td>280</td>
<td>yimaa-ngu</td>
<td>-lir=ji=an-gu=ma</td>
<td>-lir=ji=an-gu=ma</td>
</tr>
<tr>
<td>285</td>
<td>ACCOMPANY</td>
<td>=adalaga:ga-</td>
<td>=adalaga:ga-</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Page</th>
<th>Line</th>
<th>For</th>
<th>Read</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>Text 3.1.3</td>
<td>[gloss for /gu<del>a</del>i<del>a</del>g/ is GU-fire-All]</td>
<td></td>
</tr>
<tr>
<td>204</td>
<td>&quot; 4.1.30</td>
<td>1PIn/Sub-/</td>
<td>1PIn/Sub-/</td>
</tr>
<tr>
<td>208</td>
<td>&quot; 5.1.10</td>
<td>3Pl~go-Pr</td>
<td>3Pl~go-Pr</td>
</tr>
<tr>
<td>221</td>
<td>&quot; 7.4.20</td>
<td>-camp-All</td>
<td>-camp-All</td>
</tr>
<tr>
<td>223</td>
<td>&quot; 7.8.20</td>
<td>-camp-loc</td>
<td>-camp-loc</td>
</tr>
<tr>
<td>225</td>
<td>&quot; 8.3.20</td>
<td>-one-inst</td>
<td>-one-inst</td>
</tr>
<tr>
<td>231</td>
<td>&quot; 10.4.60</td>
<td>there</td>
<td>there</td>
</tr>
<tr>
<td>253</td>
<td>&quot; 12.13.3</td>
<td>[insert quotation marker ' before /may?/]</td>
<td></td>
</tr>
<tr>
<td>265</td>
<td>&quot; 12.39.99</td>
<td>1PIn/GU-call-</td>
<td>1PIn/GU-call-</td>
</tr>
<tr>
<td>272</td>
<td>&quot; 12.53.5</td>
<td>They tried him</td>
<td>They didn't try him</td>
</tr>
<tr>
<td>273</td>
<td>&quot; 12.57.20</td>
<td>'yi-riq-'</td>
<td>'yi-riq-'</td>
</tr>
</tbody>
</table>

Note: for symbols @ and TRANS and text citation numbers we use here the same system as for the Nunggubuyu texts volume, see discussion at beginning of Appendix C.1, above.
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a) primary works on Nunggubuyu


Hughes, Earl. 1969. Tales of the Nunggubuyu Tribe. mimeo, Numbulwar. abbreviation: TNT. [copies at Numbulwar and in A.I.A.S. library in Canberra; see also pp. 359-368 of my dictionary for comments on particular words]

--. 1970. More Tales of the Nunggubuyu Tribe. mimeo, Numbulwar. abbreviation: MT. [copies at Numbulwar and in A.I.A.S. library in Canberra; see also pp. 368-75 of my dictionary for comments on particular words]


comments: the present volume along with Heath 1980a and 1985 contain substantially all I know about the language, in some cases presenting more complete or final analyses than those in earlier articles; these publications are also designed to supersede the earlier works by Hughes, a mission chaplain, except that Hughes text volumes TNT and MT remain valuable. The material in More's 1979 paper is covered in more detail in the present grammar; the analysis of length and stress in his 1980 paper is somewhat different from my own.

b) other reference cited


c) other publications by Heath on Australian languages


Bibliography 648


1982. J. Heath, F. Merlan, and A. Rumsey, eds., Languages of Kinship in Aboriginal Australia. Oceania Linguistics Monographs, no. 24. [contributions by Heath are: Introduction, pp. 1-15; Where is that [knee]?: basic and supplementary kin terms in Dhuwal (Yuulngu/Murngin), pp. 40-63; and, with F. Merlan, Dyadic kinship terms, pp. 107-24]


forthcoming. Massacre at Hodgson Downs. [Warndarang text] In L. Hercus and F. Sutton, eds., This is What Happened. Canberra: A.I.A.S.


d) other materials

Aside from material which has now been published, my field materials which might conceivably be of some value include song texts (Nunggubuyu, Yuulngu including Ritharrungu, a little Anindilyakwa, and some boomerang-clapstick singing from Mara and Warndarang); some Dhuwal and Dhay'yi (Yuulngu) texts, mostly secret/sacred but including some historical Dhay'yi texts; and elicited material, mostly flora/fauna terminology, for several languages including Yanyula (Anyuwa), Dhay'yi, and some Barkly languages.

Ethnographic materials on the Nunggubuyu and nearby people were discussed in NMET, pp. 10-12.

A catalogue of my tapes on Australian languages and songs is in pp. 376-82 of my Nunggubuyu Dictionary.

Bibliography 649
Index

Note: References are to page numbers. Nunggubuyu words as index entry heads are alphabetised like English words, with /nY/, /nG/, /lh/, /dh/ treated as nY, nG, lh, dh sequences and other diacritics disregarded.

A (prefix series) 93, 339
/a~u/ 77, 88
A₁ (verb class) 408
A₂ (verb class) 408
intr. vs. I₁ trans. 418
trans. vs. A₁ intr. 417
A₇ (verb class) 408
/a~aba/. See /agaba/.
-abilhan/ - Sequential 264-65
ability. See Future.
Ablative 203-04 (case)
with pronoun 252
with demonstrative 321
NC inf. choice 158, 165
used for subject 204-05
follows Progressive 210
cardinal direction 333
clausal subordinator 574
Absolute 104, 291-95
in Type DemAdv 327
Absolutive 550
cpd. initial 474
abstract nouns 188, 192
lexical 218
root noun 400
actor-indexing cpd. 487-88
Actual 337
actualisation
/yen/ 434
/y岭南/ 433
/agaba/ 'now' 425-26, 618
adjective. See noun (adjectival).
/aguge/ 444
adverb
DemAdv 269
interrogative 459
See also noun (adverbial).
Adverb-Shortening P₁-2 41-42 45-46
adversative 435-38
affirmative 455-46
afterthought 613-14
/al-/
Benefactive 377-81
'ground' cpd. initial 465
'again' 450-51
/agalhal- 'season' 482
agent 550
agentive (lexical) 490
/al/ particle 454
/al/ suffix 98, 265-66, 282-84
with interrogative 460
with DemAdv 309-13
in Lateral demonstrative 322-25
with further suffix 296-97
/al-yun/ with DemAdv 309-13
See also Centripetal; Ablative.
/al-bum/ 400
/al/ Centrifugal 98, 282, 285-88
in Lateral demonstrative 322-25
with DemAdv 313-14
/al-yum/ yes/no particle 453
Allative

/=.gunt/ DemAdv 303, 305
dative sense 304
cardinal directions 333
Allative-Dative 201-3 (case)
NCInf choice 171
with pronoun 252
with demonstrative 321
for direct object 204-5
in Directional DemAdv 307-8
clausal subordinate 575
'almost' 432
/a/- 92
/-ambirwir-/ 400
/an/- 88
ANA class. See noun class.
Anaphoric demonstrative 269, 310
phonology of 79-80
ANA wu Object Deletion 371
ANA subclass. See noun class.
/an/- /See -/gara/- 7
/an/- See wu.
antelection 431-33
intonation 603
antipassive 200, 390, 392, 401,
479, 551
'any' 442
/an-wa-/ 'even'. See ANA wu.
with numeral 483
'anyway' 442
apodosis 577-82
appeal 453
apposition
pronoun & noun 247, 256,
262, 265
pronoun & demonstr. 331-32
elements in 'NP' 498-506
DemAdv & noun 304
possessor & possessed 546-49
Relative noun & clause 565
conjoined nouns 562
Dyadic kin terms 232
verbs 562
/araga/ 'suddenly' 433-34, 619
/arad/- /anyway/ 442
archiphonemes 10-11, 13
/art/ 'maybe' 438
/art/ negative
existential/locative 533-36
as cpl. final 492, 536

/a/- 'abandon'. See U2 class.
aspect
verbal 337, 340-41, 600
inflectional subsystems 416
nominal 172
aspect-harmony 171
aspect-skewing. See negative
harmony.
age 407, 412
covert-aspectual basis 416
auxiliary cpd. 469-70
/a/- cut up'. See U1 class.
/a/- /Cotransitive 294-60
/a/- /vag-/ 260-61
B (prefix series) 93, 399, 360
B-Insertion 361
See also cotransitive.
back 487-48
See also Progressive.
backgrounding 171, 449, 599
of Relative clause 561
/ba/- /side/ 482
behu/- /cut up'. See U1 class.
because 442-46
Benefactive 377-82, 551-52
plus Multiple 403
plus Refl, Recip, or Caus 403-6
=biliya/- /till'. See ANA class.
/bla/ [creole] /for/ 626
bleeding order (phonology) 106
exx. 108 (P-1, -36), 109
(P-1, -26, 27), 110 (P-1, -31
sometimes), 120 (P-4, -36),
122-23 (P-4, -49), 123
(P-6, -50), 124 (P-9, -10, 119)
(P-6, -20, 21), 126 (P-4, -13),
127 (P-9, -36), 128 (P-12,
-18, P-10, -49), 134 (P-18,
-30), 137-38 (P-34, -36 ?),
137 (P-32, -30), 141 (P-46,49)
blind. See phonological rules.
bound root 175
/bu/- /See Anaphoric demonstr.
'but' 435-38
'can' 586
See also Future.
cardinal directions 332-34
Case 199-216
list of suffixes 199
etymologies 630
spatial cases 167
omission of case marker 167
double case marking 199
in multi-word "MN" 504-5
case-marked pronouns normally
human 253
case marking usually omitted
with discourse-marked pronoun
253
with demonstrative 314-21
clausal subordinate 560-77
with alternating 565-77
See also case-spreading
See also case-spreading
See also case-spreading 546, 569, 572
head-to-Rel type 569
Pred-to-NP type 569
Causative 395-551
with Benefactive 405
with Recip/Recip 402
Centripetal 282, 285-87
Lateral demonstr. 322-25
with Relative clause 313-14
Centripetal 282-84, 287, 305
with DemAdv 309-13
Lateral demonstr. 322-25
chaining 557-58
challenging addresssee 435-38, 519
clause
problematic nature 514-19
negative scope 525-26
complement 558-59, 582-86
subordinated 558-59, 570-77
boundary of 530
CN. See component morphome
collective 178, 391
reduplicated 194
Comitative 351-85, 551
with Refl/Recip 405
Cpl. initial 483
comparative 557
compass points 333
complement. See clause.
component morphome 147, 347, 360
compound 463-95, 546
bahirnathi 472
lexical vs. productive 463
NM vs. MN 464
vs. derivation 381, 388
supportive initial 465
metatheses 637-38
textual exx. 615-17

Concessive 435
concord 543
Concrete 287-91
condensation 477
conditional 217-18, 446, 577-82
counterfactual 345
protasis precedes apodosis 581
fuzzy protasis boundary 580
positive protasis as negative
scope 579-80
internal Relative clause 580
Confirmative 436
conjunction
particles 426-30
of nouns 540-45
concord category 543
with Relative clause 566
of clauses 557-58
consonant 12
archiphonemes /g/, /h/ 13
palatal-type 32, 101
in final position 19
clusters 18-30
See also lateral; interdental;
retroflexed; velar;
laminoalveolar; stop;
nasal; semivowel;
lateral; /h/; /h/; /h/; /h/; /h/;
continuant. 443, 525
contact. See phonological rules.
container
noun class of 188
continuant (paired) 14, 62-64
archaico alternations 61
Continuous
verbal aspect 337
noun-class prefix. See noun
class.
contradicting 435-38
See also self-contradiction.
Contrastive pronoun 254-61
grammatical relation 256, 260
copula 516. See also /yaga/.
counterbleeding order (phonology)
106
counterfactual 345, 577-82
counterfeeding order (phonology)
106
exx.: 108 (P-1, -8, 18), 109-9
(P-1, -26, 27), 125 (P-8, -46)
(P-10, -11 ?), 131-32
(P-16, -46)
cyclical ordering (phonology)
107-8, 118, 121, 130-31 (?)
imperonalisation 178
See also human.

infinitise
Inan./nonvolitional Multiple
prefix 385
See also human.

Indoccupative ('become') 399-98
‘indeed’ 495

indefinite 494
See also definiteness.

indexing
opd. initial for characters
in myths 487-88
See also noun class;

interdict discourse 559
See also quotation.

inflection 36, 151, 159
verb-suffix categories 337

vocalic suffixes 407-422
history of 635-37
Initial Nasal-Deletion P-33 76
Initial Semivowel-Insertion
P-3 46
Instrumental 210-12 (case)
NCinf prefix absent 162
with pronoun 253
distinct sense with pronoun
265
sense with demonstr.
318-320
clausal subordinator 576

interclausal adverb 12, 19-20
interjection. See vocative;

exclamation;
root form; Interjec-
tion-Formation.

interrogative 453-62
Yes/no 453
interrogative-demonstr. 459-60
WH 454-61
word order 508

/yaga/ particle 439-40
‘what?’ 455-57

‘who?’ 178, 262, 457
‘when?’ 459

‘where?’ 469-60
‘why?’ 456

‘how?’ 456 (instrumental)
‘which?’ 458
‘how much?’ 458-59
‘whatchamcallit?’ 461

intonation 32-33, 428, 507
unmarked falling pitch 603
falling-then-rising 603
high monotone 602
list 602
quotation 602
diacritics in text 598

intertransitive
prounal prefixes 348
See also transitivity.

inverse transitive prefix 362-63
Inverse-Insertion 569

iy-contraction P-15 57-58

/=/ suffix

Dyadic allomorph 231
nominalisations 103, 483-86

/-ja/ verb suffix 401

/-ja/- Causative 393-95

/-ji/ Locative DemAdv 300

/-jir/ 435

/-jun/ Type derivative 327

‘just’ 442
See also /-wugaj/.


kin terms 221-25
irreg. phonology 55-56, 77
categories 223[diagram]
morphology 225-28

bearsenent terms 233
avoidance style 233

nonhuman referent 237-38

subcategories 234-36
verbs 238-39

labial consonant 12, 19, 22
laminar consonant 12
laminolavelar consonant 12

‘later’ 490

lateral consonant 12

Lateral demonstrative 322-25
rarely with pronoun 265-66

lead-in. See echo.

Leftward-Hardening P-19 64-65
Length-Shift P-43 88
Lenition P-16 58-60
rule ordering 132-33

‘left’. See Ritative.

lH-Delateralisation P-32 75-76

/’hala[/creole] ‘to, in’ 666
overlap (phonological rules) 106

P-l to P-50 35-105
palatal consonant. See alveopalatal;
consonant (palatal-type).
Palatal-Deletion P-26 69-70
palatal-type. See consonant.
paragraph 599
partial perspective shift 329
particle 423-51
definition 423
textual exx. 617-19
parts (of body, etc.) 174-77
nou class of 191-92
as cpd. initial 476
suppletive forms 465
with Relative case 215-16
kin metonyms 234-36
forms, phonology
P-50 35-105
alveopalatal;
consonant (palatal-type).

P-25 118-19

Causative 405-6
with causative 402
with Multiple 404-6
flexive sense 392
recognition 428, 437
mistaken 439

Reciprocal 391-93, 444-45
frozen to stem 419
with kinship verb 236, 239
with benefactive 405
with causative 402
with multiple 404-6

Reduplication

Initial (P-2) 37-41, 86-87
rule order 111-18
internal 342
double 342

Cardinal direction 333
normalisation 484-86

Pronominal 483-84

productive 342

stem-deriving 342
in negative verb 522
sense with verb 341-43
uses with nouns 193-95
adjectival 194
collective 194
plural 196

Irregular 193

minor types 194

history of 628

Final (P-3) 41-42
rule order 116-19
from /an'ba:/ 'other' 486-87
referred (kin term) 222

Reflexive

Emphatic pronoun 264

Recip in reflexive sense 392

Reflex verb in /-i-/ 389-91
with benefactive 405-6
with causative 402
with Multiple 404
with opd. initial 476

relation.

See grammatical relation.

Relative case 213-17, 546-550
with pronoun 104, 243, 248-50
with demonstrative 321-22, 327
syntax with nouns 216, 565
choice of NC/NC prefix 166

Index 661