

TOPICS IN LARDIL GRAMMAR

by

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ABSTRACT

This thesis constitutes an overall study of the phonology, morphology, and syntax of the Lardil language of north Queensland, Australia. Part One includes notes on the phonetics and orthography of Lardil, but is primarily as elaboration and modification of Kenneth Hale's analysis of Lardil phonology and morphology. Hale's study dealt primarily with nouns, while the present study accounts for verbs, personal and demonstrative pronouns, and clitics. Part Two deals with further issues in phonology and morphology.

The syntax chapters for the most part adopt the framework of Relational grammar as being developed by David M. Perlmutter and Paul M. Postal. Part Three describes variations in networks of relations, and shows that certain variations in sentence patterns are a consequence of the deletion of, variously: subject or other nominal; verb; or tense. Part Four primarily treats various classes of rules affecting or referring to grammatical relations. Part Five deals with case assignment, adjoined clauses, and certain related topics.

Thesis supervisor: Kenneth L. Hale

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TABLE OF CONTENTS

| | |
|---------------------------|---|
| Abstract | 2 |
| Map | 4 |
| Preliminary remarks | 5 |

PART ONE

| | |
|---------------------------------|-----|
| 1. Orthography | 16 |
| 2. Nouns | 33 |
| 3. Verbs | 77 |
| 4. Personal pronouns | 107 |
| 5. Demonstrative pronouns | 125 |
| 6. Clitics | 131 |

PART TWO

| | |
|--|-----|
| 7. Attrition: a late rule | 135 |
| 8. The accusative and tense-mood | 140 |
| 9. Rule ordering | 157 |
| 10. Summary of rules | 167 |

PART THREE

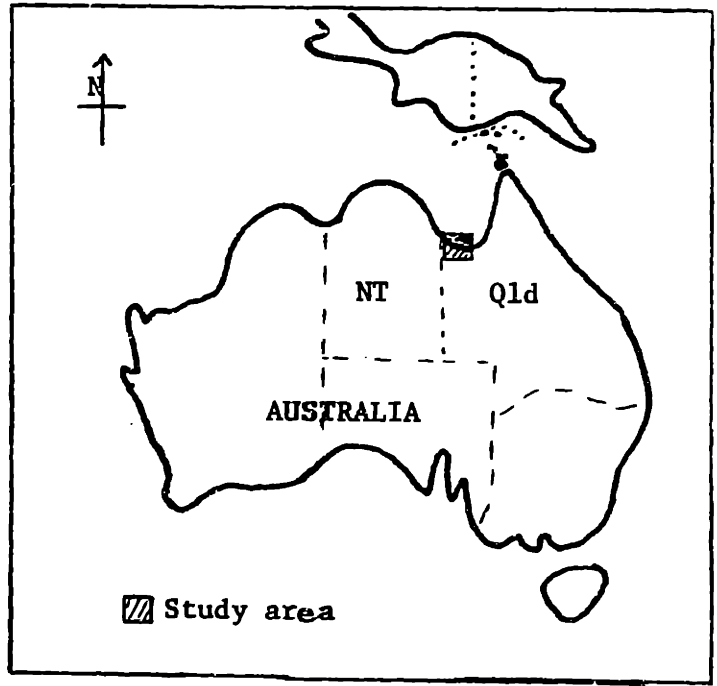
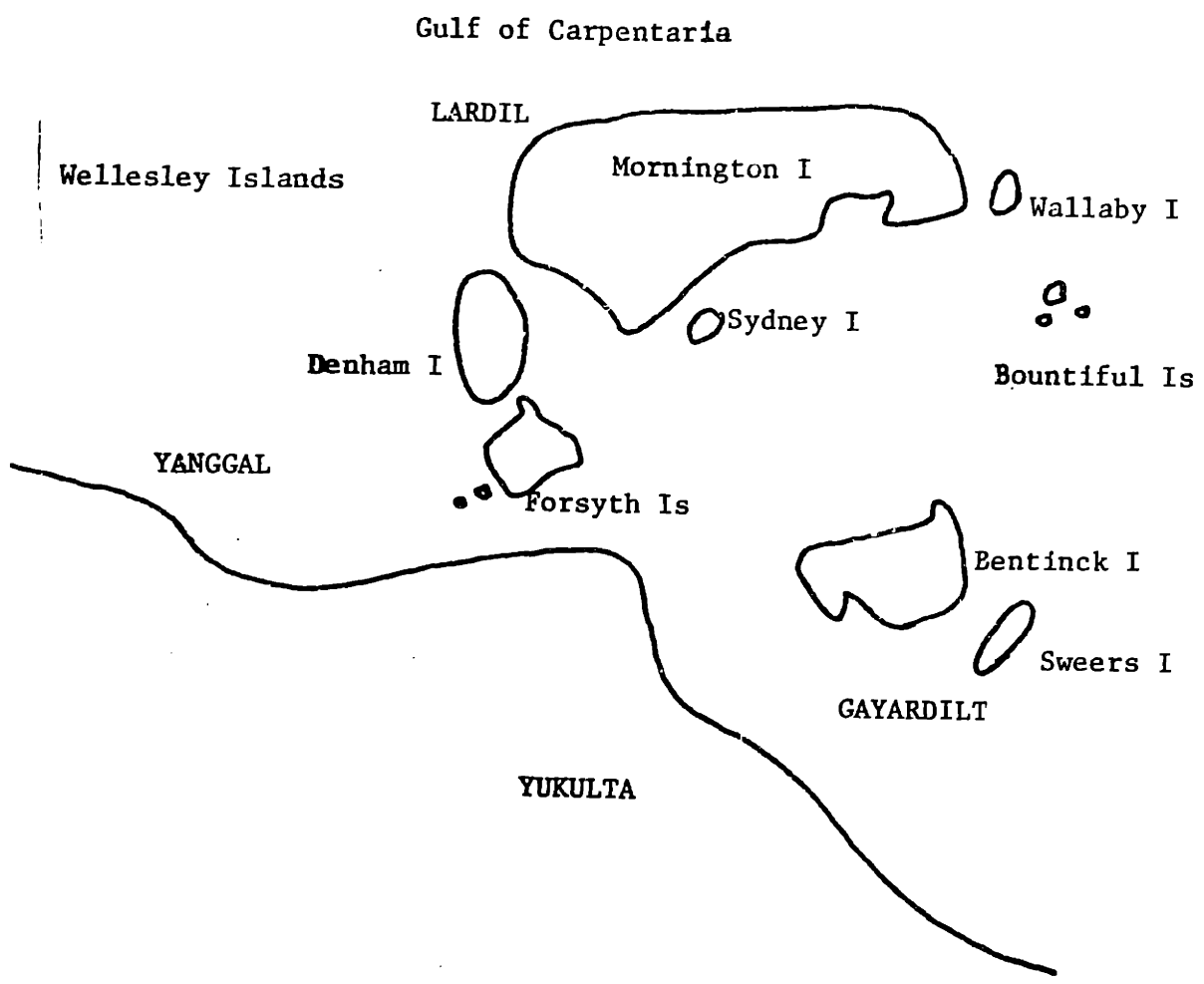
| | |
|---|-----|
| 11. Grammatical relations | 178 |
| 12. Verb, nominal, and tense deletion | 203 |
| 13. Minor sentence types | 234 |
| 14. Conjunction | 245 |
| 15. Cliticization | 260 |

PART FOUR

| | |
|------------------------------------|-----|
| 16. Possessor ascension | 265 |
| 17. Passive and reflexive | 273 |
| 18. Subject raising | 323 |
| 19. Other relation rules | 342 |
| 20. Incorporation | 354 |
| 21. Overlay relations | 363 |
| 22. Summary of linearization | 376 |

PART FIVE

| | |
|----------------------------|-----|
| 23. Case assignment | 380 |
| 24. Adjoined clauses | 449 |
| Bibliography | 525 |
| Biographical note | 530 |



PRELIMINARY REMARKS

1. The people and their language
2. Genetic affiliations
3. Preview of syntax
4. Preview of phonology
5. Abbreviations and conventions
6. Acknowledgements
7. Footnotes

This thesis is an overall study of the phonology, morphology, and syntax of the Lardil language of north Queensland, Australia.

The spelling of the language name as Lardil in English has been customary. In the orthography used in this book, the accurate spelling is Reertil. It seems reasonable to retain the familiar Lardil when writing in English and to use Reertil when writing in the Lardil language.¹

There is to my knowledge no existing study of an Australian language which attempts in a systematic way to root out all the motivated syntactic rules. Until this has been done carefully (and I hope that this study will provide one starting point in this respect), we remain in ignorance about the validity of many specific hypotheses.

I have written the syntax portions of this thesis along the lines suggested by the theory of Relational Grammar (Perlmutter and Postal, forthcoming). One reason for my choice of Relational Grammar over Transformational-Generative Grammar is a methodological one. Of the two theories, Relational Grammar makes much more detailed, stronger hypotheses about the possible syntactic rules that might be encountered in any human language, as well as about their interaction and many other properties.

The discussion of phonology and morphology is conducted in the framework of Chomsky and Halle (1968).

1. The people and their language

The Lardil homeland consists of Mornington and Sydney Islands, which form part of the Wellesley Islands, in the Gulf of Carpentaria.² These islands are today a part of the state of Queensland, Australia.

Before the European conquest of Australia, which began in earnest around 1800, the Lardil people and other Aborigines lived in a hunting and gathering economy, at the band level of social integration. They collected vegetable food such as roots, and hunted not only land animals such as the wallaby but also the sea turtle, the dugong (a large sea mammal), and various species of fish. Hunting implements included both spear and boomerang.

The vocabulary of Lardil naturally reflects the economic importance of the animals and weapons just mentioned. For example, there are the distinct terms mudakad 'small male dugong', kathudumunita 'small female dugong', puumunita 'large, young female dugong', kunartenethar 'old male dugong', ngartadji 'pregnant dugong', marenkur 'mother dugong with young male', wekurungkur 'boss/leader of school of dugongs', and malja 'school of dugong', as well as the general term kentapal 'dugong'.

Kinship has played a major role in the social and economic aspects of Lardil culture (Sharp 1935, 1939). The basic social unit is the family, and one's upbringing, hunting territory, and so on, are determined by kinship. The importance of kinship is reflected to some extent in the grammar of the Lardil language. Non-singular pronouns have distinct forms to refer to groups in the same generation versus adjacent generations, this principle of 'generation harmony' (Hale 1967a) generalizing to include all possible generation levels. For example, the pronouns niinki and pidi are both third person dual, 'they two'. To refer to, for example, a man and his uncle, it is appropriate to use niinki and, when speaking of, say, two brothers, then pidi should be used. The general principle is that a harmonic pronoun like pidi is used for persons in the same generation, or in generations separated by an odd number of intervening generations; a disharmonic pronoun like niinki is used for persons in immediately adjacent generations or in generations separated by an even number of intervening generations.

Certain words in the sociological terminology of Lardil are exceptions to general phonological rules (Hale 1973:435, fn.36). These are the subsection names: ngadijpalangi; pangarinyi; puranyi; pudarangi; and kamadangi; which all fail to undergo the truncation rules described below

in chapter two, section 2.2. These terms are borrowings from Aboriginal languages on the mainland of Australia.

Position and movement are typically reckoned in Aboriginal society in terms of compass directions. A special set of directional determiners exist which permit a succinct expression of the compass directions. For example, while tiin 'this' and kiin 'that' are neutral with respect to direction, the following are precise: raa 'that- to the south', jidkar 'that- to the north', and so on.

The Lardil people are among those Aboriginal groups who have conducted initiation ceremonies for males which include circumcision and subincision. Women do not participate in these ceremonies. There is an auxiliary language, Damin (in the Lardil orthography, Temiin), associated with the advanced stages of initiation. Kenneth Hale (1973:442-5) has described several features of the phonology, grammar, acquisition, and use of Damin, from which account I cite the following observations.

When Lardil men underwent subincision and became advanced initiates, or warama, they entered into a ritual relationship with certain other members of the community which entailed, among other things, the use of a special language in communication with them. ... Damin ... is sometimes said to be a 'secret' language, though in practice it was secret only in the sense that it was taught in the context of advanced initiation and, therefore, in complete remove from the uninitiated... It is said that Damin was taught to the initiate in a single sitting, preferably, though again, in practice it was probably learned over a longer period due to the fact that it was used openly in the community (accounting for the fact that women and other uninitiated people could understand it). In any event, the majority of Damin lexical items, organized into semantic fields, was shouted out to the initiate in a single session. As the Damin items were announced, another speaker gave the Lardil equivalents. Damin is remarkable in many ways. Its

vocabulary is small and exploits to the utmost the semantic structure of Lardil by naming only the most abstract oppositions-e.g. the deictic system of Damin has only two terms ... by comparison with the Lardil system of nineteen pronouns and several demonstratives ... Damin has a number of consonantal segments which are totally lacking elsewhere in Australia. Among these are nasalized clicks ... an ingressive lateral fricative ... a glottalized, or ejective, velar stop ... and an ejective bilabial stop ... Damin differs from Lardil in lexicon and phonology; but in grammar, the two are identical. (Hale 1973:442-3)

There exist a number of brief studies dealing with aspects of the life of the Lardil people, listed in Craig (1970) and Tindale (1974a). Roughsey (1971, 1975) has retold in English some traditional stories from his culture.

2. Genetic affiliations

Lardil belongs to the Pama-Nyungan family, which is the largest grouping of native Australian languages, encompassing some 160 documented Aboriginal languages (O'Grady and Voegelin 1966:29, 54), as well as the Western Torres Strait Language (Kala Lagaw Langgus). But only a third to a half of these languages are represented by still living native speakers. Even fewer Pama-Nyungan languages are maintained today as the primary means of communication: among these are Aranda, Pitjantjara, Walbiri, and the Western Torres Strait language, but not Lardil. Nevertheless, there are several persons who learned Lardil as their first language and who command it fluently.

The closest relatives of the Lardil language include the other Wellesely Island languages, Yanggal (Forsyth and Denham Islands) and Gayardilt (Bentinck Island), as well as the Yukulta language of the adjacent Australian mainland.³ However, these three languages are evidently much more closely related to each other than to Lardil (cf. O'Grady and Voegelins 1966:54).

3. Preview of syntax⁴

This brief survey omits mention of some complicating factors, such as irregularities, restrictions on certain rules, and so on. Also, immediately irrelevant morphological features are ignored.

The word order in a clause is subject, verb, direct and indirect objects, other dependents. Direct object may precede or follow indirect object. There are a few clitics: they are variously positioned clause-second, pre-verbal, or post-verbal. In sentence 1, the subject is pidngen 'woman', the verb wutha 'give', the indirect object ngimpeen 'you/ Accusative', and the direct object (with its dependent) tiin in midithin in 'this /Accusative medicine /Accusative'. The Eventive enclitic kun follows the verb; this common enclitic can be present in a clause representing an actually occurring event or state, whether past or present.

1. Pidngen wutha kun ngimpeen tiin in midithin in.

woman give EV you this medicine

'The woman gave you this medicine.'

The subject is nominative (i.e. uninflected for case) in a finite clause and accusative in an infinitive clause. Sentence 1 illustrates a finite clause, while sentence 2 contains a dependent infinitive clause: the subject of 1, pidngen 'woman' is nominative, while the subject of the infinitive verb waangkud 'go /infinitive' in 2 is pidngen in 'woman/ Accusative'.

2. Niya ratha yakin, pidngen in waangkud.

he spear fish woman/AC go/INF

'He speared a fish, when/after the woman went/left.'

With respect to case assignment for subjects, Lardil differs from the vast majority of its sister languages. Those languages operate in this respect according to the ergative principle, i.e. the subject of a (finite) intransitive verb is nominative, while the subject of a (finite) transitive verb is overtly inflected for the so-called ergative case. A direct object is typically treated like an intransitive subject for purposes of case assignment, i.e. it is nominative.⁵

Lardil is obviously not an ergative language in this sense. Sentence 1 has the nominative pidngen 'woman' as subject of a transitive verb, while in sentence 3 the same nominal is subject of an intransitive verb, yalali 'laugh'. (And both sentences 1,2 contain direct objects in the

accusative.

3. Pidngen yalali kun.

'The woman laughed.'

Both direct and indirect objects are assigned the accusative case, which is -in after a consonant stem, -n after a vowel stem. Sentences 1,2 illustrate this, as do 4a,b, the latter with direct objects yaraman-in 'horse/Accusative' and thawa-n 'rat/Accusative', respectively.

4.a Ngata kudi kun yaramanin.

I see horse/AC

'I saw a horse.'

b Ngata netha kun thawan.

I hit,kill rat/AC

'I hit a rat.' or 'I killed a rat.'

Of other nominal dependents, locatives and instrumentals receive distinctive case inflections, as illustrated by the locative thawun-nge 'house/Locative' and parnga-r 'stone/Instrumental' in 5a,b.

5.a Pidngen kunaa kun thawunnge.

woman sit/be house/LC

'The woman is in the house.'

b Ngata netha kun thawan parngar.

I hit/kill rat/AC stone/IN

'I killed the rat with a stone.'

A restricted set of demonstrative pronouns, namely those distinguishing the compass directions, have distinctive forms for expressions of source, i.e. elatives. The chapter on demonstrative pronouns discusses these. Certain other semantic relations are expressed not by case but rather are mediated by dependent verbs: goal, source (in general), possession, lack; also, recipient may be expressed in such a construction instead of by an indirect object. These are all treated in some detail in subsequent chapters.

A left-disclocated nominal is nominative, while the copy left behind (if any) retains case as already described. A question nominal may or may not come in clause-initial position; if it does, it must be nominative. A repeated nominal (i.e. repeated from previous sentences in the discourse) ends its clause, but takes case appropriate to the (central) grammatical relation that it bears; also if that repeated nominal is the subject, then

usually some non-subject nominal precedes the verb. In all the clause types mentioned in this paragraph, the subject remains in the nominative.

A topicalized nominal begins its clause and is nominative; the subject (if not itself topicalized) is then assigned the genitive case.

In an imperative clause, a first person pronoun takes case according to the rules already outlined; any third person nominal however doesn't take the accusative, being instead in the nominative.

There are several rules in Lardil which change grammatical relations: Passive; Advancement of Locative to Direct Object; Possessor Ascension (the possessor nominal assumes the grammatical relation of the possessed nominal); Subject to Object Raising; and Subject to Subject Raising. There is also Incorporation.

The non-future tense optionally deletes. Case assignment is obscured somewhat in any (non-imperative) clause not undergoing tense deletion in that the tense, mood, and infinitive categories spread from the verb to all dependents other than the subject. While the tense, mood, or infinitive category distributed in this way is in general added to independently assigned endings, it displaces without a trace accusative or locative case.

A relative clause is adjoined not to the antecedent but rather to the clause containing it. The relativized nominal is nominative; it begins the clause when the antecedent follows, and is final with the relative clause when the antecedent precedes. The subject of a relative clause (if not itself relativized) is assigned the genitive case.

The dependents of a nominal other than a full relative clause immediately precede the governing nominal. A possessor expression is assigned the genitive. Any inflectional categories assigned to the nominal spread by concord to its dependents.

The case of an Equi trigger is assigned to the verb of the downstairs clause; for some speakers, this case then distributes by concord to all the dependents (including the subject) of the downstairs verb.

4. Preview of phonology

The segmental inventory for Lardil is fairly typical of Australian Aboriginal languages (cf. O'Grady and Voegelin 1966:57-8,64). Among the

consonants, there are stops and nasals, plus glides w r y, lateral l, and flap d. Stops and nasals contrast at all points of articulation: besides bilabial p m and dorso-velar k ng, there are apico-alveolar t n, apico-domal (retroflex) rt rn, lamino-dental th nh, and lamino-alveolar jy. Voicing is not distinctive. Lardil has one more vowel than the classic Australian system: besides i a u, there is a front non-high e. Length is distinctive, there being also ii aa uu ee.

The most striking features of Lardil phonology are the effects of a set of truncation rules (which apply to words longer than one syllable). The following word-final segments delete: a vowel in a polysyllabic word; a consonant if terminating a consonant cluster; and any non-apical consonant. The three rules must apply in the cited order, and can result in up to three segments deleting, as in jumpuju from underlying /jumpujumpu/ 'dragonfly'. The presence of a suffix prevents truncation from applying to the stem, as in the Accusative form jumpujumpu-n.

Monosyllabic words undergo augmentation, as in wunta from underlying /wun/ 'rain'. There are about a dozen other phonological rules as well. (The Lardil orthography reflects the output of all phonological rules except very late ones such as the one called Attrition.)

5. Abbreviations and conventions

I have tried to keep the number of abbreviations used to a minimum, and to use them sparingly. They play their main role in the sublinear analysis of the syntax chapters. To render the abbreviations as unobtrusive as possible, I have made them quite short.

Some major groupings of abbreviations are listed here. Central grammatical relations: V, 1, 2, 3, C. Overlay grammatical relations: Q, RL, TP. Tense: F, NF, INF. Mood: ADM, IM, C/IM. Case: AC, IN, GN, LC, EL. Person/number/harmony in personal pronouns: 10, 12, 13, 20, 22, 30, 33, 122, 133, 222, 333.

The abbreviations are listed here in alphabetical order. Those consisting of numbers are at the end.

| | |
|-----|-----------------|
| AC | Accusative case |
| ADM | Admonitive mood |
| C | Chomeur |

| | |
|------|-----------------------------------|
| C/IM | Conjoined imperative |
| D | Disharmonic (pronoun) |
| EL | Elativ case (pronoun) |
| EV | Eventive enclitic |
| F | Future tense |
| GN | Genitive case |
| H | Harmonic (pronoun) |
| IM | Imperative mood |
| IN | Instrumental case |
| INF | Infinitive (tenseless) |
| LC | Locative case |
| NF | Non-Future tense |
| NG | Negative |
| POS | Possessor |
| PRF | Perfective proclitic |
| PRP | Propriative |
| PRV | Privative |
| Q | Question overlay |
| R | Registration (passive, reflexive) |
| RL | Relative overlay |
| TP | Topic overlay |
| UN | Uninflected for tense |
| V | Verb |

| | |
|--------|--|
| 1 | Subject |
| 2 | Direct object |
| 3 | Indirect object |
| 10 | First person singular |
| 12,122 | First person inclusive: dual, plural, respectively |
| 13,133 | First person exclusive: dual, plural, respectively |
| 20 | Second person singular |
| 22,222 | Second person: dual, plural |
| 30 | Third person singular |
| 33,333 | Third person: dual, plural |

The following sentence exemplifies many of the categories that are abbreviated. The word stems here are nyad- 'we dual exclusive harmonic'; kepe 'find'; and pidngen 'woman'.

Nyadi kepeenengkur pidngenngan.

1(13H) V/R/NG/F C/GN

'We dual exclusive harmonic will not be found by the woman.'

Lardil lacks determiners corresponding to English 'the; a' and does not obligatorily distinguish past time from present time. To make English glosses more felicitous in these respects, I have somewhat arbitrarily supplied determiners and tense. Apart from these two, I have often attempted to make the English glosses as informative as possible about the Lardil original, e.g. by glossing nyadi in the above reference as 'we dual exclusive harmonic' and so distinguishing it from the seven other first person non-singular pronouns. However, in many instances, it has been possible to ignore Lardil categories that are not usually marked in English, and thereby achieve a more felicitous gloss without loss of crucial information. For example, the noun thapu 'older brother' is in general simply glossed as 'brother'.

In chapter two, which deals with noun morphology, the English glosses are in general peripheral to the analysis, and have in some instances been reduced from the equivalent of a dictionary entry to a single word.

6. Acknowledgements

The Lardil data for this thesis was provided by Gully Peter, Fred Jarrar, Jacko Jacobs, Lindsay Roughsey, Dick Roughsey, and the late Mick Charles, in interviews with Kenneth L. Hale. My source of information has included not only Hale's notes, but also many hours of discussion with him.

The thesis has been much improved thanks to suggestions from Paul Kiparsky, David M. Perlmutter, and John Robert Ross, although I cannot expect of any of them to express complete satisfaction with the final result. Above all, it has been Ken Hale who has helped to increase my understanding of Lardil and its place among the world's languages; the explicit acknowledgements I have made to him are only the tip of the iceberg.

Financial support for my work on this thesis has come from a Canada Council Doctoral Fellowship and the U.S. National Institute of Mental Health.

During the Australian Institute of Aboriginal Studies Biennial Conference, May-June 1974, which I attended at the expense of the Institute, I had my first opportunity to hear Lardil from a native speaker.

7. Footnotes

1. Some other spellings have been used for the language name, including Lardill (P.J. Trezise, in unpublished work); Laierdila (Sharp 1939 and elsewhere); Lardiil (Tindale 1974a); and Lardi:l (Tindale 1974b). Tindale (1974a:2-3) seems to be claiming an exceptional level of phonetic accuracy for his spellings of Aboriginal names, but his Lardiil (or Lardi:l) is not the only one that is inaccurate. Among the transcriptions of his that I find questionable, the following can be corrected on the basis of studies available at the time Tindale's reference work was being compiled: Djirubal (cf. Dixon 1972); Njangamarda (cf. O'Grady 1964); and Targari (cf. Klokeid 1969). In addition, the language of Badhu (Badu) and Muwa (Mua) is misidentified by Tindale (1974a:126) as 'related to those of the southern mainland of New Guinea', when in fact it is not; but it is clearly related to Australian Aboriginal languages, including Lardil. Cf. Bani and Klokeid (1972).

2. According to Tindale (1974a:179, 1974b), the territory of the Lardil people also included a part of Denham Island.

3. The Yukulta language has been described by Keen (1972). Kenneth Hale has unpublished notes on Yanggal; cf. Hale (1973:440-1).

4. Except where otherwise noted, in later chapters I deal with syntax in the framework of Relational Grammar, which is being developed by David M. Perlmutter and Paul M. Postal (forthcoming). However, the present Preview should be informative even for those who are not familiar with this framework. A fuller outline of Relational Grammar, together with a list of references, may be found in Chapter Fourteen.

5. Kenneth Hale (1970) has described various kinds of ergative systems found in Australian languages.

CHAPTER ONE

ORTHOGRAPHY

- 1.1 The segmental inventory
- 1.2 Criteria for an orthography
- 1.3 Lardil spelling
- 1.4 Remarks on phonetics
- 1.5 Footnotes

1.1 The segmental inventory

Lardil has 17 distinctive consonants and 8 distinctive vowels. The charts below summarize these inventories.¹

| CONSONANTS | | | | | | |
|------------|--------|---------|----------|----------|--------|--------|
| | bi- | lamino- | apico- | lamino- | apico- | dorso- |
| | labial | dental | alveolar | alveolar | domal | velar |
| stop | p | t̪ | t | t̪ | t̪ | k |
| nasal | m | n̪ | n | ɲ | ɲ | ŋ |
| glide | w | | | y | r̪ | |
| lateral | | | l | | | |
| flap | | | r | | | |

| VOWELS | | | | |
|------------|-------|------|-------|------|
| | front | | back | |
| | short | long | short | long |
| high | i | i: | u | u: |
| mid or low | e | e: | | |
| low | | | a | a: |

Many other symbols have been used to transcribe similar sounds in Australian languages. For example, the lamino-alveolars /t̪ ɲ/ have been written as /tʲ nʲ/ respectively, or the latter as /ñ/. Also, the stops /p t̪ t̪ t̪ k/ have been written as /b d̪ d̪ d̪ g/, or slight variants thereof.

Moreover, diacritics and special symbols have been replaced by letters, e.g. /t̥ n̥/ have been written as /th nh/; /t̥ p̥/ as /tj nj/; /t̥ n̥/ as /rt rn/; /ŋ/ as /ng/; /i:/ as /ii/ (etc.), and so on.

As for the Lardil language itself, it has not been commonly written. Apart from a number of individual words used by Dick Roughsey in his English language books (1971, 1975), and kinship terminology presented by R.L. Sharp (1939 and elsewhere), most of the published Lardil is contained in a series of articles by Kenneth L. Hale (1965, 1967a, 1970b, 1973, 1974). In addition, Hale has extensive fieldnotes and unpublished research notes, including material presenting a suggested orthography. The transcriptions used in Hale's, Roughsey's, and Sharp's work differ both from each other and internally.² In summary, there has been no single standard transcription or orthography for the Lardil language.

Here, yet another way to write Lardil has been introduced.

1.2 Criteria for an orthography

The writing system that has been adopted in the present study is intended as an orthography, i.e. as a spelling system that is suitable for everyday use in reading and writing Lardil. Before developing the orthography, I review some general principles that must be considered. These fall under four rubrics: ease of learning; ease of production and recognition; punctuation; and phonological accuracy.

1.2.1 Ease of learning

There is no doubt that any writing system should be suitable for learning in a relatively short period. Probably the simplest writing systems in use at the present time are the syllabics of Native Canadians such as the Cree and Inuit (Eskimo).³ A single symbol represents some consonant, and the orientation of the symbol the following vowel. For example, in Cree the bilabial stop *p* is represented by the symbol < . The vowel orientations yield the following syllables:

| | | | |
|----|----|----|----|
| < | > | ^ | ∨ |
| pa | po | pi | pe |

Similarly, the apico-alveolar stop t is C, yielding the following syllables:

| | | | |
|----|----|----|----|
| C | ∪ | ∩ | ∪ |
| ta | to | ti | te |

Such a system is very easy for an adult to learn. In fact, it was with this criterion in mind that a missionary, James Evans, first devised the Cree syllabics in 1840.⁴

Despite the obvious superiority of a writing system like this, the general trend in Canada, as well as in Australia and many other countries, is to utilize the Roman (English) alphabet in writing the languages of indigenous peoples. This reflects a second aspect of the criterion of learnability: persons who speak such languages generally must master English or another language written in the Roman alphabet, and it is probably easier to learn one orthographic system than two.



One additional problem with a syllabic writing system, perhaps, is the difficulty that many small children have in mastering letter orientation. For such children, C and ∪ are identical.

1.2.2 Ease of production and recognition

Once an orthography has been mastered, it must also serve its function well. An orthography with few enough symbols to fit on a standard typewriter is one consideration: for example, the Kana symbols of Japanese are too numerous for this (there being just short of 2,000 such symbols), while both the Roman alphabet of English and the syllabics of Cree or Eskimo fit quite comfortably. In addition, it is difficult and costly to have books printed which do not use common symbols: the Roman, Greek, and Slavic alphabets, as well as the Cree and Eskimo syllabics, are relatively available, but genuinely unusual symbols like those of the International Phonetic alphabet are not. In an area where English has been the only commonly written language, then probably the only readily available letters are those of the English alphabet and it is impractical to consider symbols not found in it.

Yet it is not only in printing and typing that problems can arise. Some writing systems can be inconvenient to write by hand. To take an established instance, in one Slavic handwriting style, the letters

T and W are difficult to distinguish, and diacritics must be resorted to.
Thus:

T 
W 

But the introduction of diacritics into a writing system is not desirable. For example, the practice just cited can interfere with underlining. Raised and lowered dots also cause similar difficulties. For example, the dot under a letter like t virtually disappears if underlining is used: t. Moreover, in handwriting and possibly even mechanically produced text, a lowered dot can be misinterpreted as a superior dot in the line below, or vice versa. It seems that, if a diacritic like a dot serves one function in a writing system, e.g. as in the letter i, then its use should not be permitted in any potentially conflicting function, e.g. as a subscript. Moreover, two similar diacritics can be hard to distinguish in handwriting, so that if the use of some diacritic is unavoidable, then it is necessary to avoid introducing a second, similar diacritic.

1.2.3 Punctuation

Since all languages have clauses and sentences, a good writing system must permit punctuation. It has been traditional with the Roman alphabet to mark sentence boundaries or pauses by means of capitalization of the initial letter, together with the period, comma, colon, and so on. Therefore, none of these devices should be used for distinguishing segments, although some have been, such as the colon in the vowel inventory of Lardil as written above. Even the raised dot, sometimes used for vowel length instead of the colon, must be avoided because it can be confused with a period.

A transcription system like the International Phonetic Alphabet presents several difficulties with respect to punctuation. Not only are punctuation marks like the colon used as diacritics, but some IPA symbols lack any recognized capitalized version.

1.2.4 Phonological accuracy

To a linguist, it seems self-evident that an orthography must reflect all the contrasts in a language, but not predictable differences. There is inevitably some question as to how phonetic or how abstract an orthography

should be, but this does not affect the basic position that an orthography ought to be phonologically based. To confirm this position, a linguist can point to the difficulties in English produced by the lack of a consistent, unambiguous way to distinguish the so-called tense and lax vowels. For example; the digraph ea is used for a tense vowel in most instances, but in the form read may be either tense or lax.

On the other hand, this principle cannot be pushed too far, as for example with marginal phonemes in a language like the English [ʒ] in treasure, measure, etc. it could well be unnecessary to have a distinct representation.

Additionally, there is often regional or other variation in a language, and the adherence to a strictly phonological writing system could require a different one for every variety of the language. It cannot be denied that the common writing system shared by Australian, Canadian, and other varieties of English is a great aid to international communication. Therefore, for any language with such variation, departures from a phonological spelling are inevitable. An interesting example has emerged from recent work by Ephraim Bani in connection with the language of the islands of the Western and Central Torres Strait. In the variety of this language spoken on Mabuyag Island, there are phonetic consonant clusters, as in the words lawnga 'not' (sequence of w and ng), garka 'youth, male' (sequence of r and k), umalnguuki 'beer, liquor' (sequence of l and ng).

For some persons who speak this language, however, certain of these consonant sequences, but not all, are broken up by a vowel. For them, a phonetically more accurate spelling for the above words is: lawanga, garaka, umalnguuki. Rather than have the two spellings in use within the same community, Bani suggests that the versions containing the vowels be standard. There is no recognition problem for anyone, and the learning difficulty is minimal.

If an orthography is to be phonologically accurate, then one thing is clear: the use of diacritics is virtually out of the question, at least where they reflect important contrasts. The tendency always seems to be for diacritics to be eliminated in actual use. For example, a widespread practice in French is to omit the accents in writing. Likewise with the macron for length in Cree when written in the Roman alphabet. The vast

majority of Inuit write their language in syllabics without the superscripts, (which represent syllable final consonants, and not merely features like vowel length), in spite of the ambiguity that can result: the only ones customarily written in are those reflecting grammatical endings which can totally change the meaning, e.g. the dual and plural endings -k, -t.

Such a practice is probably all right for informal and immediate communication. But in more removed situations, great difficulties arise, e.g. for the Canadian government translators who must convert incoming Inuit correspondence for the benefit of officials who know only English or French. Often, these translators cannot understand a portion of a letter, due to the omission of diacritics. Much discussion among the translators is required in such a situation, and even then a final decision may still remain a guess.

Interestingly, the professional Inuit translators are virtually the only persons who habitually hand write the diacritics (all printed books and periodicals use them, however).⁵ This suggests that there is a big difference in the way that an orthography is approached by, on the one hand, persons with a language-centered occupation (translators, linguists), and on the other, the rest of the population.

There is another circumstance in which diacritics are dropped, and this is in the citation of one linguist's work by another. For example, several linguists have recently quoted Dyirbal sentences from Dixon (1972), a book using an essentially IPA-type transcription. What Dixon writes as

ḡugumbiṙu 'woman/ergative'

has come to be cited in some instances as

dugumbiru.⁶

Thus, the distinctions between the apico-alveolar and lamino-alveolar stops, written d ḡ respectively by Dixon (1972), and between the flap and apico-domal, r ṙ respectively, have been blurred in the citations.

Moreover, typists and typesetters often miss out diacritics, which many linguists can attest to from personal experience. An example in print is the cover of O'Grady (1964), where the language name Nyangumata is written without the lowered dot, although this diacritic is used throughout the monograph.

In the circumstances I have described where diacritics come to be dropped in practice, one could fault the layman, the typesetter, or the linguist, for carelessness or sloppiness. But I think that blame like this is misdirected. The fact remains that if the writing system did not employ diacritics, no such problems would have arisen.⁷

Summary and conclusions

For ease of learning, the best orthography is either a syllabic one like the Inuit/Cree ones, or else an alphabet that is going to be needed anyway. For several reasons (feasibility of punctuation, accuracy, ease of printing and typing), diacritics are to be avoided.

All these considerations strongly argue against a representation like the IPA system as used in section 1 for Lardil.

Nevertheless, some linguists might feel that there are overriding considerations that support the use of IPA. Certainly, any desire for precision cannot be one of these, in the light of experiences like those already cited. It is worth contemplating the fact that the IPA has not been adopted by linguists for writing European languages beyond citations of individual words. Even at that, there are outstanding instances like Bloomfield's Language where the ordinary orthography of English is used even when analyzing morphology where the phonetic form is important; I believe it is fair to say that no reader has ever felt a lack of accuracy in the description due to this format.

A further claim that could be advanced is that a practical, usable orthography isn't an issue at all for some languages, for example for a language that has few speakers or no young speakers. On such grounds, it may be possible that such a language will become extinct. This would be a very disturbing stand for a linguist to take. While many languages have gone entirely out of use over the centuries of known human development, it is surely not the responsibility of any linguist to undertake predicting this ultimate fate for any given language. To do so, in fact, could well contribute toward hastening a language in this situation to such an unfortunate end.

The significance of concern for an orthography versus indifference toward

one (or outright rejection of potential importance) certainly emerges when we contrast the widespread literacy in syllabics among the Cree and Inuit with the virtual illiteracy in the native language among groups such as the various Wakashan bands of Vancouver Island whose languages have been written down in several published volumes by Boas, Sapir, Swadesh, and others. Even where motivation is sufficiently high, so that an individual learns to read a book like Sapir and Swadesh's Nootka Texts⁸, complete with diacritics and Greek letters, real literacy and active use of the writing system have not developed. Many factors could be at work of course, but I believe that the orthographic question is among the major ones. I can cite my own frustration in trying to read Tseshaht in some of Sapir's materials which lack punctuation - to supply this, even for sentence boundaries or quotation marks, one has to constantly check against the English gloss, which is, of course, punctuated.⁹

1.3 Lardil spelling

The representation of Lardil in IPA, as in section 1, must clearly be judged unsuitable according to the criteria of section 2. It is possible to devise an acceptable Lardil orthography, however, as I now demonstrate. The Lardil spelling system developed here is the one used throughout the rest of this book.¹⁰

The major task is to eliminate all IPA symbols and diacritics without introducing any undesirable features.

First, for the stops, it is necessary to use the series:

p t k ...

rather than

b d g ...

so that for the velar nasal (eng), the sequence ng can be used unambiguously. (This also frees the letter d - a welcome bonus, as we'll see later.) If instead, the stops were represented by b d g ... , then we would have to represent eng by ŋ or nk or something even less satisfactory.

Next, we need to eliminate the diacritics in the coronal series:

| | | | |
|----|---|----|----|
| ṭ | t | t̥ | t̚ |
| ṇ | n | n̥ | n̚ |

In place of the lamino-dental diacritic ̣, an h can be used.

Although the fricative commonly represented by h is neither laminal nor dental, the combination th is used in English for lamino-dental obstruents.¹¹

This eliminates one diacritic:

| | | | |
|----|---|----|----|
| th | t | t̥ | t̚ |
| nh | n | n̥ | n̚ |

For the retroflexion (apico-domal) diacritic with stop and nasal, a preposed r seems a natural substitute:

| | | | |
|----|---|----|----|
| th | t | t̥ | rt |
| nh | n | n̥ | rn |

This leaves the retroflex glide ɖ and the flap r in an uncertain position. There are a number of reasonable choices. For example, we can use a single r for one of these sounds and a double rr for the other. A third choice, though, eliminates confusion about whether rr means retroflex or flap. This alternative exploits the earlier decision to use t̥ not d̥ (etc.) for the stops. This leaves d̥ free to represent the flap (formerly r) and so a single r̥ can then be used to represent the retroflex glide (formerly ɖ). The use of d̥ for the flap is very reasonable on phonetic grounds, in fact, because this segment is phonetically a stop in certain environments, e.g. in the word /pɪrɪn/ 'woman', which is phonetically [bɪdɪn].

So far, all but one diacritic has been eliminated among the coronals:

| | | | |
|----|---|----|----|
| th | t | t̥ | rt |
| nh | n | n̥ | rn |
| | | | r̥ |
| | | | d̥ |

For the lamino-alveolars, there are a great many choices. To eliminate /ṭ ṇ/, we could use /ṭy ny/, /ṭj nj/, /j nj/, or /j ny/. The first two are consistent in replacing lamino-alveolar diacritics by y, j respectively, the third retains this consistency, but represents a slight simplification by suppressing the ṭ. Such a simplification is desirable, but there would be ambiguities with words like /taṇɪr/ 'hip' which would come out as

tanjid; we cannot now tell if the medial is the cluster /nʃ/ or the single consonant /n/. The final alternative listed above, using j ny, retains the advantage of simplification, but eliminates the potential ambiguity just cited. Furthermore, it is easy to interpret j ny from the English point of view, and so the inconsistency in having both j and y represent a single point of articulation is not a very disconcerting inconsistency. Therefore, I adopt this final alternative for Lardil. This completes the consonant inventory:

| | | | | | |
|---|----|---|----|----|----|
| p | th | t | j | rt | k |
| m | nh | n | ny | rn | ng |
| w | | | y | r | |
| | | l | | | |
| | | d | | | |

For the vowels, no complications arise. The long vowels, which are relatively rare, are written double:

| | | | |
|---|----|---|----|
| i | ii | u | uu |
| e | ee | a | aa |

It is ~~now~~ possible to use normal punctuation freely with this orthography: capitalization, colons, periods, and so on, will never be confused with the segmental representation.

A few ~~additional~~ conventions are adopted. When there is a homorganic sequence of nasal plus stop, only one h or r is written: e.g. /kaṇṭa/ 'father' is written NOT as kanhtha but rather as kantha; and /waṇṭa/ 'river mullet' is NOT warnrta but rather is warnta. Other such clusters occasion no special treatment: e.g. /kaṇṭin/ 'wallaby' is karnjin; /ma:nkur/ 'spear /Future' is maarnkur, and so on.

A more serious problem could potentially arise with the sequence of apico-domal glide plus stop, /ɽṭ/. The word /maṭa/ 'hand', without anything further said, would be written marta: but this can be interpreted as /maṭa/. There are other words give rise to the same consequence, e.g. /ṭurṭa/ 'excrement'.

Now, to my knowledge, no actual confusion results with these words (neither /maṭa/ nor /ṭurṭa/ seem to be actual Lardil words), but the potential

is there. To avoid any possible ambiguities, I write /t/ alone consistently as rt and for the sequence /rt/, I fall back on the phonetics of the situation. Since /maṛṭa/ is phonetically [maṛṭa], I write it marlta; and in general I use rlt to represent the sequence /rt/, phonetically [ṛt]. In practice, it could well turn out that this is an unnecessary distinction to make.

Another question that needs to be resolved is, what level of abstraction the orthography should represent. Typically, an orthography developed by native speakers of a language is abstract in at least some respects.¹² It is really an open question, however, given our present state of understanding. I have chosen to retain a fairly phonetic representation: only the effects of Attrition (chapter 7) are not represented in this orthography. Quite possibly, experimentation would show that a more abstract representation is suitable in some respects. On the other hand, it may be quite reasonable, in informal writing in Lardil, to show the effects of even very late rules like Attrition. This would be analogous to the English writing style in which contractions like that of can not to can't or of going to to gonna, are shown. Thus a word like yadamanin 'horse /Accusative' could be written in the informal style with the final n that is deleted by Attrition omitted: yadamani.

At least one further issue in the orthography is left open for now. I write proclitics and enclitics separately from the words to which they attach phonetically. I do not necessarily advocate this for Lardil orthography. The main motivation for such a practice in this book is to render the morphological analysis somewhat more transparent. Thus, the sequences yuud padki 'Perfective chop', padki kun 'chop Eventive' are phonetically yuudpadki, padkikun. However, the sequence waa plus the Eventive enclitic (normally kun) has the somewhat idiosyncratic phonetic form waangun. Here I'll write waangun, never waang kun.

1.4 Remarks on phonetics

The following notes refer to the orthographic representation of Lardil.

1.4.1 The feature system of Lardil

The charts below specify the distinctive features in the system suggested by Chomsky and Halle (1968), except for the feature apical: tongue tip sounds are apical, all others are non-apical. Following a suggestion by Halle, the feature distributed is defined only for coronals.

In the charts below, the values of features which are shared by all segments in a row are indicated at the right, while the feature values shared within a column are set out underneath.

The consonants are all [-syllabic], and elsewhere in this book the abbreviation C will be taken to represent any non-syllabic segment. All vowels are [-consonantal, +syllabic], and the symbol V will be used to represent this class of sounds. The abbreviations used in the charts are as follows: ant - anterior, cons - consonantal, cont - continuant, cor - coronal, dist - distributed, nas - nasal, son - sonorant, syll - syllabic, lat - lateral, ap - apical.

CONSONANTS

| | | | | | | cons | lat | nas | cont | son |
|------|---|----|---|----|----|------|-----|-----|------|-----|
| | p | th | t | rt | j | k | + | - | - | - |
| | m | nh | n | rn | ny | ng | + | - | + | + |
| | | | l | | | | + | + | - | + |
| | | | d | | | | + | - | - | + |
| | | | | r | | | + | - | - | + |
| | w | | | | y | | - | - | - | + |
| ant | + | + | + | -- | - | - | | | | |
| cor | - | + | + | + | + | - | | | | |
| ap | - | - | + | + | - | - | | | | |
| dist | | + | - | - | + | | | | | |

VOWELS

| | | | | | long |
|-------|----|----|----|----|------|
| | i | e | a | u | - |
| | ii | ee | aa | uu | + |
| high | + | - | - | + | |
| back | - | - | + | + | |
| low | - | + | + | - | |
| round | - | - | - | + | |

1.4.2 Word and syllable structure

A word in Lardil must begin with exactly one consonant, both underlyingly and phonetically. Intervocally, zero, one, or two consonants are permitted. (A sequence of unlike vowel is split up by Glide Insertion, e.g. ru-y-in (chapter 2), while a sequence of like vowel yields a phonetically long vowel, as is implicit in the vowel chart of 1.4.1.) Word finally, zero, one, or two consonants are permitted underlyingly, but phonetically never more than one consonant, which must be apical, occurs word finally, due to certain truncation rules.

Every Lardil word is at least two syllables long. Underlying monosyllables are always converted to disyllabics by the Augmentation rule (chapter 2), e.g. underlying pat, ja are phonetically pata, jaa.

1.4.3 Non-high front vowels

For some Lardil speakers, the non-high, non-back vowels e, ee are also non-low, i.e. [e ~ ε], [e: ~ ε:], respectively. But for most speakers of Lardil, these vowels are low, i.e. [æ] and [æ:]. (Non-high back vowels are consistently low.) Thus the following redundancy rules are operative in the two dialects:

a (majority dialect)

v

$\begin{bmatrix} -\text{high} \\ +\text{back} \end{bmatrix} \longrightarrow [+low]$

b (other dialect)

v

$[-\text{high}] \longrightarrow [+low]$

1.4.4 Apical consonants

Word-initial apicals t, n are retroflexed (apico-domal) following a word ending in a vowel or in a retroflex consonant

When such a sequence constitutes a fixed form written as a single word, then the retroflexion is shown in the spelling. Hence the word for 'child', based on tangka 'person', is mangarta. (The final syllable -ngka truncates by rule.) The segment r is phonetically a lateral pre-vocallically. Thus a word like ratha 'spear' begins with an apico-domal lateral [ɭ]. Moreover, if this segment is word-initial, and the preceding word or proclitic ends in an apico-alveolar, then r itself is phonetically apico-alveolar (instead of apico-domal), as well as being a lateral. Hence the sequence of yuud 'Perfective proclitic' and the verb ratha 'spear' manifests a phonetic apico-alveolar lateral for the first segment of the verb: yuud[ɭ]atha.

1.4.5 Voicing

Apart from the obstruents, all segments are voiced. For obstruents, voicing is also predictable, although no simple generalizations can be formulated. Word initially, t ɭ are always voiced; p alternates freely; k alternates, but is mostly voiceless; and th is voiceless. Obstruents do not occur word finally, otherwise their non-initial allophony is as follows. After l or d, the obstruents p th k are typically voiceless; otherwise obstruents are voiced.

One obstruent, th, is regularly a (voiced) fricative intervocallically. Apart from this, obstruents are always stops.

1.4.6 Stress

Primary word stress is on the initial syllable: /wérne/ 'food'; /thápuɭi/ 'friend'; /kúdithur/ 'will see'. Primary phrase stress is on the last word of the phrase: /kɭin wérne/ 'that food'; /ngíthun thápuɭi/ 'my friend'; /ngàta nɭwenthar kúriθur/ 'I'll see him'. There are exceptions to this, namely a set of nominal expressions with /tangka/ 'man' as the head noun, and with a demonstrative or other modifier preceding the head noun. In these expressions, the noun encliticizes to

the modifier, and then undergoes truncation, thus appearing as /-rta/, or is assimilated to a preceding apico-alveolar, as /-ta/. For example, there exist the expressions /yúkadya-rta/ 'husband' (literally 'husband-man'); /mánga-rta/ 'child'; /tíin-ta/ 'this man'; /ngája-rta/ 'which man?, who?'. Observe that these nominal expressions have initial, not final, stress. Compounds regularly take final stress: /turlta-wúnta/ 'cloud' (lit. 'excrement-rain').

1.5 Footnotes

1. Stops vary in voicing, and there are other important aspects of the phonetics which are not obvious from the charts here. See section 1.4 for details; there, the phonetic observations are stated in terms of the orthography developed in section 1.3.
2. Moreover, some linguists in citing Hale's works have altered the transcription, e.g. sporadically in Dixon (1972), where the velar stop of Lardil is represented as k (p. 137) or g (p. 258).
3. Thanks to Stanley Cuthand and Eugene Y. Arima for introducing me to Cree and Inuit syllabics, respectively.
4. Many persons have been known to learn Cree syllabics with three hours of instruction.
5. My information on the use, or lack of use, of diacritics in the Inuit syllabics, and on the ensuing problems is from Eugene Arima, personal communication.
6. Pullum (1976:86) cites a Dyirbal sentence containing this word. His source is a secondary one, D.E. Johnson's unpublished doctoral thesis, which I have not seen. However, Johnson (1974:283) indicates in a very indirect way that he has omitted the relevant diacritics in citing Dyirbal. Evidently, Pullum did not check the original, published source.

7. However, there are circumstances where the use of diacritics or special symbols in an orthography might be unavoidable. An example of this seems to be the Wakashan language Nitinaht, which is a phonologically typical member of that family, having 38 consonant phonemes. Two diacritics need to be used in the orthography for consonants: the glottalization diacritic, which is an apostrophe; and the back velar diacritic for fricatives, which is a sublinear dot. In addition, the glottal stop has a special symbol, being the question mark minus the dot. It is interesting that the lowered dot and even the glottal stop symbol can be omitted in writing Nitinaht with next to no confusion. Only the glottalization diacritic is really important.

Another situation where diacritics or special symbols might be desirable is when the choice of orthography is held to be a part of the struggle against cultural assimilation. Then, a wholly or partially distinctive set of symbols may serve as a rallying point for resistance.

8. The texts are actually in the Tseshaht language of Port Alberni, not the Mowachaht language of Nootka Sound.

9. Other aspects of the traditional format used by Boas, Sapir, and others are also highly questionable. Although occasions do arise that make it necessary, the practice of lining up the words (or even morphemes) of the study language to match an English sublinear gloss renders the material difficult to read for anyone who knows the language of study.

10. This orthography has been developed by the author over the last several years in close consultation with Kenneth Hale. Although our differences of opinion have often seemed irreconcilable, I think it is fair to say that we both agree totally at this time. Many specific features of the orthography are direct contributions by Hale.

11. Kala Lagaw Langgus, the Western Torres Strait language, has the same contrast as Lardil. Ephraim Bani and the Rev. Michael Bani, while examining the existing orthography for the language in the 1960's, reached the

conclusion that the lamino-dentals should be marked with an h: hence, they suggested t th, d dth (this language contrasts voiced and voiceless stops). In 1970, the Banis, G.N. O'Grady, and the present writer further revised the orthography, and settled on using dh instead of dth for the voiced lamino-dental stop.

12. There is the famous work of Alexander Thomas on Tsshaht, reported by Sapir. Ephraim Bani, in writing Kala Lagaw Langgus, has always used a for phonetic a and schwa, where the two are underlying the same.

CHAPTER TWO

NOUNS

- 2.1 Accusative, Non Future, and Future
- 2.2 Nominative
- 2.3 Genitive, Locative, Instrumental, and Comitative
- 2.4 Verbal affixes
- 2.5 Reduplication and compounding
- 2.6 Irregular forms and minor rules
- 2.7 Footnotes

The inflected parts of speech in Lardil are nouns, adjectives, verbs, personal pronouns, and demonstrative pronouns. Kenneth Hale (1973: 421-448) has examined the phonology of Lardil in some detail, based on a study of noun paradigms, principally the Nominative, Accusative, and Future forms.¹ The present study is based on Hale's, but presents a somewhat different analysis, and extends the treatment to all inflected forms of nouns. Adjectives inflect exactly like nouns and so are not accorded separate treatment. The other parts of speech are described in subsequent chapters.

The surface form of a noun may include inflectional suffixes marking case, tense, or verbal notions. For example, the noun for which the uninflected (or nominative) form is /yadaman/ 'horse' has the forms as in 1a,b. The noun /parnga/ 'stone' is used to illustrate some of the verbal affixes in 1c.

1. a case

- | | | |
|------|--------------|------------------------|
| i. | yadaman-in | Accusative (ACC) |
| ii. | yadaman-ngan | Genitive (GEN) |
| iii. | yadaman-nge | Locative (LOC) |
| iv. | yadaman-kur | Instrumental (INSTRUM) |
| v. | yadaman | Vocative |

b tense

- i. yadaman-ar Non Future (NFUT)
- ii. yadaman-kur Future (FUT)
- iii. yadaman-kur Infinitive (INFIN)

c verbal notions

- i. yadaman-kur 'having a horse', Propriative (PROP)
- ii. yadaman-wed 'lacking a horse', Privative (PRIV)
- iii. parnga-mari 'put (something) on a stone'
- iv. parnga-pudi 'take (something) from a stone'
- v. parnga-ya 'go to a stone'
- vi. parnga-pudii 'leave, go from a stone'

Further inflectional possibilities exist, in that under certain circumstances an additional case or tense inflection, or an enclitic, may be added to some of the forms in 1. These additional possibilities are studied in chapter 8, as are the categories exemplified in 1c, iii-vi inclusive.

Not all nouns have the full range of inflection shown in 1. Just which of the many possible inflectional categories are permissible for any given noun will be determined in part by selection restrictions and in part by the syntax. All nouns, however, inflect for at least one case category, the accusative, e.g. /yadaman-in/. The accusative is the case of a direct object, infinitival subject, and of a variety of complement noun phrases. Partially as a consequence of the wide range of accusative assignment, all nouns inflect for two other inflectional categories as well. These are the two tenses, the future and non-future. In a sentence in which the verb is inflected for either of these tenses, any noun phrase in the sentence (other than the subject) takes the same tense by concord (the tense may be absent in surface structure due to the interaction of other rules). When tense is added by concord to some nominal that has been assigned accusative case, then the accusative is suppressed and the surface form of the noun contains only the tense inflection, e.g. /yadaman-ad/ 'horse/NF', /yadaman-kur/ 'horse/F'.

It is fitting, then, to begin the study of Lardil nouns by examining

the accusative, non-future, and future forms, as well as the nominative, e.g. for /yadaman/ the forms lai, lbi, lbii above.

For nouns (but not verbs), the infinitive form is always identical to the future. Thus no separate discussion of the infinitive form of a noun is needed.

2.1 Accusative, Non-Future, and Future Forms

2.1.1 Vowel lowering

In 2 below, a set of nouns showing the uninflected nominative and selected inflected forms is set out.

| 2. | NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE | |
|----|------------|------------|--------------|-----------|----------------|
| | thawa | thawa-n | thawa-ngad | thawa-r | 'rat' |
| | warnta | warnta-n | warnta-ngad | warnta-r | 'river mullet' |
| | pura | pura-n | pura-ngad | pura-r | 'sacrum' |
| | parnga | parnga-n | parnga-ngad | parnga-r | 'stone' |
| | kela | kela-n | kela-ngad | kela-r | 'beach' |
| | wanka | wanka-n | wanka-ngad | wanka-r | 'arm' |
| | kungka | kungka-n | kungka-ngad | kungka-r | 'groin' |
| | tadngka | tadngka-n | tadngka-ngad | tadngka-r | 'barracuda' |

The phonological partitioning of the inflected forms is transparent, since the inflected forms in 2 all consist of a base identical to the nominative, with a suffix added. The phonetic form for each suffix category is invariable for all the nouns in 2. The accusative ending is /-n/, e.g. the accusative of /thawa/ 'rat' is /thawa-n/. The non-future inflection is /-ngad/, e.g. as in /thawa-ngad/. The future is /-r/, e.g. /thawa-r/.

While the nominatives in 2 are identical phonetically to the corresponding base forms to which inflectional suffixes are added, this is not true of all Lardil nouns, as the paradigms in 3 demonstrate. (The inflectional categories are arranged in the same order as in 2.)

| | | | | | |
|----|-------|---------|------------|---------|----------------------|
| 3. | pulpa | pulpu-n | pulpu-ngad | pulpu-r | 'mound, hill' |
| | pitma | pitmu-n | pitmu-ngad | pitmu-r | 'chest' |
| | wadka | wadku-n | wadku-ngad | wadku-r | 'sun, day' |
| | nguka | nguku-n | nguku-ngad | nguku-r | 'water' |
| | ngawa | ngawu-n | ngawu-ngad | ngawu-r | 'dog' |
| | nguda | ngudu-n | ngudu-ngad | ngudu-r | 'forehead' |
| | murna | murnu-n | murnu-ngad | murnu-r | 'elbow' |
| | karta | kartu-n | kartu-ngad | kartu-r | 'child (of a woman)' |

The base form for inflection is uniform in 3 for each noun, and the inflectional endings are the same as we have seen for the nouns in 2. For example, the inflected forms of the word for 'mound, hill' all end in /u/: /pulpu-n/ 'AC', /pulpu-ngad/ 'NF', /pulpu-r/ 'F'. However, the nominative form differs in that it has an /a/ in place of the final /u/: /pulpa/. Obviously, this is not an isolated case, since all the nouns in 3 conform to the same pattern of alternation. In general, then, when the inflectional base ends in /u/, that vowel is lowered phonetically to /a/ in the uninflected form. The reverse is not true, however: that is, given that a nominative ends in /a/, we don't know whether the inflectional base will end in /u/ as in 3, or in /a/ as in 2. Rather, given the nominative form, we still need to be informed as to which pattern, 2 or 3, that particular noun conforms to. To express the above generalization, we must take the abstract form for the nouns in 3 as ending in a high vowel /u/ and those in 2 as ending in a low vowel /a/: the lowering of /u/ to [a] when no inflection follows is then statable as a general condition on phonetic forms, with no reference to the particular words involved being necessary.

4. Vowel lowering (version 1)

Lower the high back vowel /u/ to the low back vowel [a] at the end of a word.

2.1.2 Vowel lowering revised

So far we have seen that a noun can end abstractly in either /u/ or /a/. Other vowels occur in Lardil as well, and noun forms may end in these:

| 5. NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE | |
|---------------|------------|--------------|------------|-------------------|
| nyede | nyedi-n | nyedi-ngad | nyedi-wur | 'mother's mother' |
| jimpe | jimpi-n | jimpi-ngad | jimpi-wur | 'tail' |
| ngirne | ngirni-n | nigirni-ngad | ngirni-wur | 'skin' |
| nyerwe | nyerwi-n | nyerwi-ngad | nyerwi-wur | 'place' |
| kernte | kernti-n | kernti-ngad | kernti-wur | 'wife' |

The base for inflected forms in 5 uniformly ends in the high front vowel /i/, e.g. /nyedi-n/ , /nyedi-ngad/ , /nyedi-wur/ AC. NF, F, , respectively, while the corresponding nominative ends phonetically in a non-high front vowel (which is either low or mid phonetically, depending on the dialect, cf. chapter 1). This alternation of [e] and [i] is strikingly similar to the alternation between [a] and [u] that we have already dealt with. In both instances, it is the high vowel which appears in the inflected forms and the non-high vowel which is found in the uninflected form. If the Vowel Lowering rule of 4 is reformulated so as to apply to all high vowels, not merely the high back vowel, then the resulting version of the rule will account for the alternation in the paradigms of both 3 and 5.

6. Vowel lowering (revised version)²

Lower a high vowel to a non-high vowel at the end of a word, i.e.

V → [-high] / ____ #

Thus the alternations of stem vowels is governed by phonological rules of quite general application.

2.1.3 The Future

Inspection of the inflectional suffixes in 5 reveals that the form of the suffixes is not quite as invariant as it has previously seemed. On the one hand, the forms of the accusative and non-future are consistently /-n/ and /-ngad/, respectively, regardless of the stem final vowel, for example, we have /warnta-n/, /pitmu-n/, /kernti-n/; and /warnta-ngad/, /pitmu-ngad/, /kernti-ngad/ ('river mullet', 'chest', 'wife'), yet on the other hand the form of the future suffix is variable, being /-r/ after the back vowels, but /-wur/ after the high front vowel: /warnta-r/, /pitmu-r/, versus /kernti-wur/.

The alternant /-wur/ occurs only after the high front vowel /i/. When the stem ends in the non-high front vowel /e/, then the future is phonetically /-r/:

| | | | | |
|-------|---------|------------|---------|-------------------|
| jempe | jempe-n | jempe-ngad | jempe-r | 'mother's father' |
| wirte | wirte-n | wirte-ngad | wirte-r | 'interior' |

The alternation in the phonetic form of the future inflection must be accounted for in the grammar. However, it is premature at this point to carry out this task, since the phonetic alternants in the future, non-future, and accusative inflections involve a great deal more complexity which we have yet to study. Therefore, I defer this issue until a later chapter.

2.1.4 Noun stems: Sonorantization and Laminalization

All the nouns we have examined in detail terminate in vowels, but there are a great many nouns in Lardil which, like the initial example /yadaman/ 'horse', end in a consonant. Some of these are displayed in 7 and 8 below.

| 7. | NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE | |
|----|------------|-------------|---------------|-------------|----------------------|
| | yupud | yupud-in | yupud-ngad | yupud-ur | 'red rock cod' |
| | tangud | tangud-in | tangud-ngad | tangud-ur | 'large crab species' |
| | mijpid | mijpid-in | mijpid-ngad | mijpid-ur | 'brow ridge' |
| | thungal | thungal-in | thungal-ngad | thungal-ur | 'tree, thing' |
| | kentapal | kentapal-in | kentapal-ngad | kentapal-ur | 'dugong' |
| | kethad | kethad-in | kethad-ngad | kethad-ur | 'river' |
| | jumud | jumud-in | jumud-ngad | jumud-ur | 'coolamin' |
| | miyar | miyar-in | miyar-ngad | miyar-ur | 'spear' |
| 8. | yadaman | yadaman-in | yadaman-ad | yadaman-kur | 'horse' |
| | tupalan | tupalan-in | tupalan-ad | tupalan-kur | 'road' |
| | pidngen | pidngen-in | pidngen-ad | pidngen-kur | 'woman' |
| | karnjin | karnjin-in | karnjin-ad | karnjin-kur | 'wallaby' |
| | maarn | maarn-in | maarn-ad | maarn-kur | 'spear' |

Comparing the four columns of 7 and 8, it is evident that the phonetic form of the inflectional endings differs extensively from the forms found after vowel stems, and moreover, that there are differences between 7 and 8.

It is significant that the noun stems in 7 end in a variety of non-nasal consonants, while those in 8 all end in nasals. In 7, only one ending is identical to that found with vowel stems: the non-future /-ngad/, as in /yupud-ngad/, corresponding to the nominative /yupud/. The other two are phonetically distinctive, being /-in/ for the accusative, cf. /yupud-in/, and for the future /-ur/, cf. /yupud-ur/. The nouns ending in nasals (8) take the same accusative ending as the nouns in 7, namely /-in/ as in /yadaman-in/, alongside the nominative /yadaman/, 'horse'. However, nasal stems take distinctive non-future and future endings: /-ad/, as in /yadaman-ad/, and /-kur/, as in /yadaman-kur/, respectively. In this respect, the endings after stems ending in nasals differ from both those found after vowels as well as those found after the non-nasal consonants.

There remains one further pattern of alternation to be studied. All the stem-final consonants exemplified so far, in 7 and 8, are sonorants, yet there do exist many nouns which end in non-sonorants. This latter claim is not easy to establish just on the basis of the phonetic form of nominatives alone, since the final non-sonorant can be affected by a variety of rules, including Sonorantization. The stop t is obligatorily converted to the flap d, and the stop rt is optionally converted to the glide r, in word-final position.

9. Sonorantization³

- a. $t \rightarrow d$ / # (optional)
- b. $rt \rightarrow r$ / # (obligatory)

For example, there exist the free alternants /ngawit/, /ngawid/ 'stomach'; /yarpud/, /yarpud/ 'snake, bird, animal', and so on. The alternant with a final sonorant is in fact preferred. So, as already mentioned, it is not obvious that we are dealing here with stems which end underlyingly in non-sonorants. But a consideration of the inflected forms does confirm this contention:

| 10. NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE | |
|----------------|------------|-------------|-------------|---------------|
| ngawid | ngawij-in | ngawith-ad | ngawith-ur | 'stomach' |
| yarpud | yarpuj-in | yarputh-ad | yarputh-ur | 'snake, bird' |
| ngampid | ngampij-in | ngampith-ad | ngampith-ur | 'humpy' |
| kaljid | kaljij-in | kaljith-ad | kaljith-ur | 'urine' |

The inflected forms in 10, clearly contain stems ending in non-sonorants, namely the stops /j/ and /th/. Such nouns take the alternants /-in/, /-ad/, and /-ur/ for the accusative, non-future, and future, respectively. For example /ngawid/ has as its inflected forms /ngawij-in/, /ngawith-ad/, and /ngawith-ur/. Although all of these alternants for the inflectional endings have been seen to occur in various other environments, there is no set of nouns ending in non-stops (i.e. sonorants) that take just this set of alternants. Also, the alternation of the laminals /th/ and /j/ from underlying /t/ is unlike anything else in Lardil. However, it is evident that there is consistent phonetic conditioning at work. The anterior /th/ appears when the inflectional suffix begins with a back vowel /a/ or /u/, e.g. /ngawith-ad/, /ngawith-ur/, and the non-anterior /j/ appears before a suffix beginning with a non-back vowel, e.g. /ngawij-in/. This is expressed in a direct fashion by again exploiting the alpha convention:

11. Laminalization⁴

$$t \rightarrow \left[\begin{array}{c} +\text{distr} \\ \alpha \text{ant} \end{array} \right] \rightarrow \left[\begin{array}{c} +\text{v} \\ \alpha \text{back} \end{array} \right]$$

Specific mention of the boundary between stem and suffix, indicated by the plus +, ensures that this rule will not apply internally to a morpheme, converting well-formed words like /kentapal/ (7) to ungrammatical forms, as /*kenthapal/.

2.1.5 Distribution of morpheme alternants

No attempt has been made to formalize the statements of governing the distribution of the various alternants for the inflectional categories, tabulated in 12 below. The left hand column indicates the class to which the underlying final segment of the stem belongs.

| 12. | ACCUSATIVE | NON-FUTURE | FUTURE |
|----------------------------------|------------|------------|--------|
| Front vowel | -n | -ngad | -wur |
| Back vowel | -n | -ngad | -r |
| Non-nasal, non-syllabic sonorant | -in | -ngad | -ur |
| Non-sonorant | -in | -ad | -ur |
| Nasal | -in | -ad | -kur |

The form of the inflectional suffixes can be summarized as follows: the accusative is /-n/ after a syllabic (vowel), /-in/ after a non-syllabic (consonant). The non-future is /-ngad/ after a non-nasal sonorant, and /-ad/ elsewhere. The future is /-r/ after the high front vowel and /-wur/ after other vowels, /-ur/ after non-nasal non-syllabics, and /-kur/ after nasals. This summation is essentially a listing of phonetic alternants, and gives us no insight into what is regular and what is unpredictable about these alternations. It is therefore natural that one would seek to express the alternants not in list fashion (although it must be kept in mind that this analysis is always a possible one).

Even though the list (12) is actually incomplete, it becomes evident that there is something predictable.

| | | |
|---------------------|-----|-----|
| 13. | ACC | FUT |
| Back vowel | -n | -r |
| Non-nasal consonant | -in | -ur |

All four of the alternants in 13 appear in other environments. Striving for generalization, we can say that both the accusative and future have an alternant -VC after (some) consonants and -C after (at least some) vowels. If we take the longer, -VC alternants to be the abstract representations, then a generalization can be made about the distribution of the vowel-less alternants -C. Namely, the vowel of the suffix does not appear after a stem itself ending in a vowel: the following rule formulates this.

14. Vowel Deletion

$V \rightarrow \emptyset / V+ ___$

(It will later be shown that the rule must not apply when the V of the environment is the first vowel of a word.)

Thus, the accusative is underlying /-in/ everywhere. The following derivations illustrate 14; cf. 2, 7.

| | | |
|-----------------|-------------|------------|
| 15. Underlying: | /thawa-in/ | /yupud-in/ |
| Vowel Deletion | \emptyset | - |
| Phonetic | [thawan] | [yupudin] |

In the same approach, we take /-ur/ to underly both phonetic [-ur] as well as [-r]. (I consider the other alternants [-wur], [-kur] below.) Thus the abstract representations of 16 give the phonetic variants shown, drawn from 2, 7.

| | | |
|----------------|------------|------------|
| 16. Abstract | /thawa-ur/ | /yupud-ur/ |
| Vowel Deletion | ∅ | |
| Phonetic | [thawar] | [yupudur] |

This reduces the needed spell out rules to 17.

17. a Accusative → -in
 b Non-future → { -ngad after vowels and non-nasal sonorants
 -ad otherwise
 c Future → { -wur after i
 -kur after nasals
 -ur otherwise

The above remarks do not lead to any account for the alternants [-wur], [-kur] for the future nor for the two alternants for the non-future [-ngad], [-ad]. Nor would any rule set up to account for these alternations have any generality beyond the particular morpheme involved. I illustrate with one conceivable proposal:

18. (A hypothesis soon rejected)
 i. The non-future is underlyingly /-ngad/ in all environments
 ii. /ng/ is deleted after non-sonorants and after nasals:

$$ng \rightarrow \emptyset / \left\{ \begin{array}{l} [-son] \\ [+nas] \end{array} \right\}^+ \text{ ---}$$

I reject 18, but not because it makes incorrect predictions about the non-future. The following derivations demonstrate that 18 works (cf. 2, 8).

19. Underlying (as per 17i)
 /thawa-ngad/ /yadaman-ngad/

18. ii. -- ∅
 [thawangad] [yadamanad]

The problem with 17 is that the supposed phonological rule (18ii) really is a statement about the alternants of the non-future, not a state-

ment about a class of sounds. It can be seen from 12 that the putative deletion of /ng/ in the non-future is not paralleled by the deletion of any other consonant in any other morpheme. There is, then, no reason to choose 18 over 17b, since no greater generality is achieved.

The proposed rule (18ii) does make predictions that 17b does not. In particular, given that there is a suffix /-nge/ (Locative, see section 2.4.2 below), 18ii predicts there will be an alternant /-e/ after nasals and non-sonorants. While it is true that both alternants /-nge/ and /-e/ (as well as one other) do exist, the distribution bears no resemblance to that expected from 18iii (see section 2.4.2 for the details).

Since 17b makes no predictions about the locative, while 18ii makes wrong predictions, 17b is to be preferred.

In conclusion, 17 summarizes accurately the unpredictable alternations encountered so far in suffixes, while the rules Vowel Lowering (6), Sonorantization (9), Laminalization (11), and Vowel Deletion (14) express the predictable alternations in stems and suffixes.

2.2 The nominative

2.2.1 Review of observations so far

It has already been shown that there are phonological rules which are applicable to the uninflected or nominative form of a noun. The rule of Vowel Lowering (6) converts high vowels to the corresponding non-high vowels, thus abstract /njedwi/ 'place' and abstract /wadku/ 'sun, day' are phonetically [njedwe],[wadka]. The rule of Sonorantization (a) (chapter 1) applies optionally to nouns ending in t to yield two phonetic alternants: /yarput/ is phonetically [yarput] or [yarpud].

These are actually among the less far-reaching of the phonological rules applicable to Lardil nouns, and so it is essential to review in detail the full range of phonetic alternations.

2.2.2 Vowel Backing

The vowel lowering rule has been quite firmly established, and given the inflected forms for the nouns shown in 20 below, anyone would feel confident about predicting the corresponding nominatives.

| 20. ACCUSATIVE | NON FUTURE | FUTURE | |
|----------------|------------|-----------|-------------------------|
| pulji-n | pulji-ngad | pulji-wur | 'heart' |
| payi-n | payi-ngad | payi-wur | 'anger' |
| tunji-n | tunji-ngad | tunji-wur | 'junior wife's brother' |

Once the endings have been segmented off, as indicated by the hyphens, it is apparent that all the stems in 13 end in the high front vowel /i/. Since this vowel has been seen to regularly lower to /e/ in nominatives, one would predict the following forms:

21.a NOMINATIVE

*pulje
*paye
*tunje

The prediction turns out to be incorrect. The actually occurring nominative forms end in the non-high back vowel.

21.b NOMINATIVE

pulja
paya
tunja

The stem-final vowels in 21b are all preceded by a lamino-alveolar, i.e. a coronal, non-anterior, distributed consonant. In this environment, the vowel is not only lowered but also becomes a back vowel. In addition to Vowel Lowering, the following rule applies:

22. Vowel Backing⁵

$$V \longrightarrow [+back] / \begin{bmatrix} C \\ -ant \\ +distr \end{bmatrix} ______$$

The two rules, Vowel Lowering (6) and Vowel Backing (22) can be collapsed by the use of the angled bracket convention: < > around disjunct material means that the material so bracketed is either all present or all absent in any given application of the rule. This is done in 23.

23. Vowel Lowering (incorporating Vowel Backing)

$$V \longrightarrow \begin{bmatrix} - high \\ <+back> \end{bmatrix} / \begin{bmatrix} C \\ -ant \\ +distr \end{bmatrix} ______ \#$$

It might be thought that, as a consequence of the existence of Vowel Lowering and Vowel Backing, that there are no high vowels phonetically at the end of Lardil nouns. This is not so, for two reasons, one of which is dealt with in section 3.3. The other emerges from a study of forms of address, i.e. vocatives. Compare the following nominatives and corresponding vocatives:

| 24. NOMINATIVE | VOCATIVE | |
|----------------|----------|------------------------------|
| a pidngen | pidngen! | 'woman' |
| b karta | kartu! | 'son, daughter (of a woman)' |
| c kernte | kernti! | 'wife' |
| d tunja | tunji! | 'junior wife's brother' |

The nominative and vocative of 24a are phonetically identical, but no phonological rule has been observed to apply to such words. The nouns in 24b,c,d have all been shown (paradigms 3, 5, 20, respectively) to end underlyingly in a high vowel: the low vowels in the nominatives are derived by the rules of Vowel Lowering (for 24b,c,d) and Vowel Backing (for 24d). The vocatives of 24b,c,d all contain a final high vowel, and it is in each instance exactly the underlying vowel. Therefore, the rules of Vowel Lowering and Vowel Backing must be blocked from applying to vocatives.⁶ The following derivations illustrate this.

25. Underlying:

| | | | |
|------------|---------|----------|-----------|
| nominative | /kartu/ | vocative | /kartu-ø/ |
|------------|---------|----------|-----------|

Vowel

Lowering

a

Blocked

[karta]

[kartu]

In summary, stem-final high vowels are lowered in nominatives (6) and backed as well, if preceded by a lamino-alveolar (16). But neither rule applies in vocatives, although these take no overt inflection.

The alert reader will have noticed that all the noun stems so far are without exception disyllabic. It so happens that neither Vowel Backing nor Vowel Lowering can be shown to apply to monosyllabic stems or to those with more than two syllables. In section 2.2.3 the phonology of polysyllabic nouns is studied, and in 2.2.4, monosyllabics are examined.

2.2.3 Truncation

It is probably truncation more than anything else which constitutes the striking feature of Lardil phonology. The effects of truncation may be appreciated by comparing the corresponding uninflected and inflected forms in 26. The truncation rules delete final vowels (26a), or final consonants (26b), or both (26c).

| 26. | NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE | |
|-----|------------|--------------|-----------------|--------------|-------------|
| a | yalul | yalulu-n | yalulu-ngad | yalulu-r | 'flame' |
| b | wangal | wangalk-in | wangalk-ad | wangalk-ur | 'boomerang' |
| c | kantukan | kantukantu-n | kantukantu-ngad | kantukantu-r | 'red' |

No one rule expresses the generalizations needed to handle forms like 26. Consider first those nouns whose underlying final vowel is absent in the nominative:

| 27. | NOMINATIVE | ACCUSATIVE | NON FUTURE | FUTURE | |
|-----|------------|------------|-----------------|--------------|--------------------|
| | thalkud | thalkuda-n | thalkuda-ngad | thalkuda-r | 'kookaburra' |
| | jinamad | jinamada-n | jinamada-ngad | jinamada-r | 'nailfish' |
| | warukad | warukada-n | warukada-ngad | warukada-r | 'Moses perch' |
| | nanad | nanada-n | nanada-ngad | nanada-r | 'sparrow hawk' |
| | jarnkud | jarnkuda-n | jarnkuda-ngad | jarnkuda-r | '(bird species)' |
| | jadad | jadada-n | jadada-ngad | jadada-r | 'parrot fish' |
| | puthurmad | puthura-n | puthurmada-ngad | puthurmada-r | 'Native Companion' |
| | maniyad | maniyada-n | maniyada-ngad | maniyada-r | 'white porpoise' |
| | mayad | mayada-n | mayada-ngad | mayada-r | 'rainbow' |
| | wiwal | wiwala-n | wiwala-ngad | wuwala-r | 'bush mango' |
| | kadikad | kadikadi-n | kadikadi-ngad | kadikadi-wur | 'butterfish' |
| | yiliyil | yiliyili-n | yiliyili-ngad | yiliyili-wur | 'oyster species' |
| | kangkar | kangkari-n | kangkari-ngad | kangkari-wur | 'father's father' |
| | yalul | yalulu-n | yalulu-ngad | yalulu-r | 'flame' |

It is obvious from the inflected forms that the underlying representation of the stems are all polysyllabic, in each instance ending in a vowel.

That vowel is a high vowel in some stems, and in others non-high. But regardless of its quality, the underlying final vowel is uniformly absent in the nominatives. Thus it must be concluded that when a noun is polysyllabic, the final vowel is deleted.

28. Apocope⁷

V ---> \emptyset / (CV (C))₂ C ____#

The underlying representation for 'kookaburra' is /thalkuda/: its inflected forms retain the stem-final vowel, /thalkuda-n/, /thalkuda-ngad/, /thalkuda-r/, but by Apocope that vowel deletes in the nominative: /thalkud/. Consider a noun like /yalul/ 'flame', for which the underlying form is /yalulu/. Such nouns, polysyllabic and ending in a high vowel, are susceptible to both Vowel Lowering (lowering the final vowel), and Apocope (deleting the final vowel). It is not necessary to apply these two rules in a fixed order, as the result can only be the desired one. Suppose Vowel Lowering applies, then the underlying /yalulu/ is converted to the intermediate representation [yalula]. Now, Apocope is applicable, yielding the correct phonetic form [yalul]. But suppose we applied Apocope first, then the abstract /yalulu/ would be converted directly to [*yalul], which does not meet the structural description for Vowel Lowering, and which furthermore does not need to undergo that rule, since it is already the correct phonetic form. Therefore, no rule ordering can be established with respect to these two rules, in the case of polysyllabic nouns ending in a vowel.

In addition to vowels, the truncation rules must delete consonants, as in 26b and 29.

| 29. NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE | |
|----------------|------------|------------|------------|--------------------------|
| makad | makadk-in | makadk-ad | makadk-ur | 'anthill' |
| malad | maladk-in | maladk-ad | maladk-ur | 'hip' |
| menyel | menyelk-in | menyelk-ad | menyel-ur | 'edible dogfish species' |
| wangal | wangalk-in | wangalk-ad | wangal-ur | 'boomerang' |
| tanjid | tanjidk-in | tanjidk-ad | tanjidk-ur | 'hip' |

The stem-final consonant which deletes in the nominatives of 29 is in each instance in a consonants cluster, e.g. the final cluster in the stem in the inflected forms /makadk-in/, /makadk-ad/, /makadk-ur/ is reduced

in the nominative /makad/ 'ant hill'. The stem final consonants which do not delete, as in paradigms 7, 8, 10 are preceded by a vowel and not a consonant. Therefore we must add a rule to the grammar of Lardil which deletes the second consonant of a word final cluster.⁸

30. Cluster Reduction⁹

C ---> Ø / C ___ #

The two rules of Apocope (28) and Cluster Reduction (30) account for the deletion of stem final vowels (26a) and certain stem final consonants (26c). In 26c, there was an example of a word in which the final syllable, i.e. the final consonant plus vowel sequence, deletes in the nominative form, so that beside the inflected forms /kantukantu-n/, /kantukantu-ngad/, /kantukantu-r/, there is the nominative /kantukan/ 'red'. Some other words which pattern like /kantukan/ are listed below.

| | | | | |
|--------------|---------------|------------------|------------------|-----------------------|
| 31. jadpayad | jadpayadpa-n | jadpayadpa-ngad | jadpayadpa-r | 'corella (bird sp) |
| jidpajid | jidpajidpa-n | jidpajidpa-ngad | jidpajidpa-r | 'dimple' |
| yukad | yukadpa-n | yukadpa-ngad | yukadpa-r | 'husband' |
| pulngad | pulngadpa-n | pulngadpa-ngad | pulngadpa-r | 'huge' |
| kadwakad | kadwakadwa-n | kadwakadwa-ngad | kadwakadwa-r | 'wattle species' |
| parjiparn | parjiparnji-n | parjiparnji-ngad | parnjiparnji-wur | 'hat' |
| wulun | wulunka-n | wulunka-ngad | wulunka-r | 'fruit sp' |
| wurtal | wurtalji-n | wurtalji-ngad | wurtalji-wur | 'meat' |

The underlying representation of these nouns is clearly a polysyllabic ending ending in a vowel, e.g. for the word just discussed, the abstract representation is /kantukantu/. This form meets the structural description of Apocope, application of which deletes the final vowel, yielding [kantukant]. This latter is not yet a well-formed phonetic representation. It meets the structural description for Cluster Reduction, since it ends in a sequence of two consonants. The application of Cluster Reduction at this point therefore yields [kantukan], which is the correct form. Applying the two rules in the order in which their structural descriptions are met, i.e. in feeding order, results in the correct derivation:

32. Apocope

Cluster Reduction

33. Underlying /kantukantu/ /kantukantu-n/ (cf. 26c)

Apocope

Ø —

Cluster Reduction

Ø

Phonetic

[kantukan] [kantukantun]

There are some instances of final consonant deletion which are clearly not accounted for by Cluster Reduction:

| 34. NOMINATIVE | ACCUSATIVE | NON FUTURE | FUTURE | |
|----------------|-----------------|-----------------|------------------|-----------------------------|
| werne | wirnin | werneng-ad | werneng-kur | 'food' ¹⁰ |
| kudka | kudkang-in | kudkang-ad | kudkang-kur | 'pandja' |
| pere | pereng-in | pereng-ad | pereng-kur | 'vagina' |
| kumpu | kumpung-in | pumpung-ad | kumpung-kur | 'anus' |
| tangku | tangkung-in | tangkung-ad | tangkung-kur | 'oyster species' |
| thurada | thuradang-in | thuradang-ad | thuradang-kur | 'shark' |
| wungkunu | wungkunung-in | wungkunung-ad | wungkunung-kur | 'queen-fish' |
| kudpuru | kudpurung-in | kudpurung-ad | kudpurung-kur | 'lance-wood' |
| milwadkaru | milwadkarung-in | milwadkarung-ad | milwadkarung-kur | 'shovel-nose' (shark sp) |
| ngalu | ngaluk-in | ngaluk-ad | ngaluk-ur | 'story' |

In 34, the stem final consonant which deletes is in no instances a consonant cluster. Moreover, there are in addition a good number of words (all polysyllabic) in which a final syllable deletes, the vowel obviously deleting by Apocope, but the consonant just as obviously not being eligible for cluster deletion: therefore something else accounts for the consonant deleting. Some examples of such nouns are listed in 35 below.

| | | | | |
|---------------|---------------|------------------|---------------|------------------|
| 35. jirntidpu | jirntidpuwa-n | jirntidpuwa-ngad | jirntidpuwa-r | 'willie wagtail' |
| pukaji | pukajiya-n | pukajiya-ngad | pukajiya-r | 'scavenger hawk' |
| maali | maaliya-n | maaliya-ngad | maaliya-r | 'swamp turtle' |

| | | | | |
|------------|----------------|-------------------|------------------|----------------------|
| madkaji | madkajiya-n | madkajiya-ngad | madkajiya-r | 'fritted lizard' |
| tuluhu | tulnhuka-n | tulnhuka-ngad | tulnhuka-r | 'month fish' |
| tipirti | tipirtipi-n | tipirtipi-ngad | tipirtipi-wur | 'rockcod species' |
| mudkuni | mudkunima-n | mudkunima-ngad | mudkunima-r | 'nullah' |
| purtu | purtuka-n | purtuka-ngad | purtuka-r | 'short' |
| ngawunga | ngawungawu-n | ngawungawu-ngad | ngawungawu-r | 'termite' |
| yaaku | yaakuwa-n | yaakuwa-ngad | yaakuwa-r | 'blue-tongue lizard' |
| pulumunita | pulumunitami-n | pulumunitami-ngad | pulumunitami-wur | 'dugong' |
| thapu | thapuji-n | thapuji-ngad | thapuji-wur | 'older brother' |

The consonants which delete in 34 and 35 are /ng/, /k/, /w/, /y/, /m/, /j/, all of which are non-apicals. We have already seen that there are stem final consonants that do not delete: /d/, /r/, /l/ (7); /rn/, /n/ (8); /t/ (10). These latter consonants all belong to the class of apical consonants. In addition to the Apocope and Cluster Reduction rules, then, a rule is needed to delete non-apical consonants. In the case of nouns like those in 34, the non-apical consonant is stem-final, and for such words the rule can be formulated as in 36:

36. Non-Apical Consonant Truncation¹¹

C
[-apical] ---> Ø / ____#

In the noun stems represented in 35, the non-apical consonant is not underlyingly stem final, rather it is the penultimate segment. However, the final segment in all these nouns is a vowel, and since all of the nouns are polysyllabic, the stem-final vowel will delete by Apocope. For example, the underlying /jirntipuw/ 'willie wagtail' is reduced to the intermediate form [jirntipuw] by Apocope. At this point in the derivation, the structural description for Non-Apical Consonant Truncation is met, and application of that rule will yield just the well-formed phonetic representation. To continue with the earlier example, the intermediate form [jirntipuw] is truncated to the correct [jirntipu] by NACT. Application of the rules in the order indicated in 37 is therefore the needed order for deriving those forms

in which the final syllable truncates.

37. (Apocope
Non-Apical Consonant Truncation

In summary, the truncation rules are: Apocope (20); Cluster Reduction (22); and Non-Apical Consonant Truncation (27). They apply in the following order:

38. (Apocope
Cluster Reduction
Non-Apical Consonant Truncation

The ordering relationship between Cluster Reduction and Non-Apical Consonant Truncation is taken up below.

2.2.4 Truncation and rule ordering

In addition to establishing the underlying representations for Lardil nouns and the phonological rules that account for the phonetic alternations, it is necessary to consider just how the rules are to be applied. The discussion in the previous subsection, 2.2.3, showed that for a large number of nouns where more than one rule applies, then the order of application is either (i) in feeding order, as between Apocope and Cluster Reduction and Apocope and Non-Apical Consonant Truncation, or (ii) where no feeding relation exists, then ordering makes no difference, as between Vowel Lowering and Apocope. However, where a feeding order exists, then it is not always true that it is the correct ordering, as shown by the nouns in 34. The underlying form of a word like /milwadkaru/ 'shovelnose shark' ends in a consonant that deletes by Non-Apical Consonant Truncation, from underlying /milwadkarung/, cf., the accusative:

| | | |
|------------|----------------|-------------------|
| 39. | NOMINATIVE | ACCUSATIVE |
| underlying | /milwadkarung/ | /milwadkarung-in/ |
| N.A.C.T. | ɔ ø | -- |
| phonetic | [milwadkaru] | [milwadkarungin] |

The output of N.A.C.T., /milwadkaru/, meets the structural description for Apocope, yet we must block the rule here, for the ungrammatical [*milwadkar] would result. That is, if Apocope and N.A.C.T. are applied together, they must be applied in just that order, a counter-feeding order:

40. (Apocope
Non-Apical Consonant Truncation

Also, some nominatives in 34 end in a vowel which meets the structural description for Vowel Lowering. For example, from underlying /ngaluk/ 'story' is derived the nominative ngalu by Non-Apical Consonant Truncation, and the high vowel /u/ comes to stand in final position. The structural description for Vowel Lowering is now met, and if it were applied, the result would be the ungrammatical [*ngala]:

| | | |
|----------------|----------|-------------|
| 41. underlying | /ngaluk/ | /ngaluk-in/ |
| N.A.C.T. | ∅ | -- |
| Vowel Lowering | a | -- |
| Phonetic | [*ngala] | [ngalukin] |

Thus these rules must be applied in counter-feeding order, as in the derivation 43.

42. Vowel Lowering
Non-Apical Consonant Truncation

| | | |
|----------------|----------|-------------|
| 43. underlying | /ngaluk/ | /ngaluk-in/ |
| Vowel Lowering | — | — |
| N.A.C.T. | ∅ | |
| phonetic | [ngalu] | [ngalukin] |

(Vowel Backing (23), which has been incorporated into the revised version of Vowel Lowering (24), must also precede N.A.C.T. as we can see from forms such as /madkaji/ (35), which cannot be /*madkaja/.)

Not only must N.A.C.T. be constrained to follow Apocope, but it must also be permitted to follow Cluster Reduction. C.R. feeds N.A.C.T. as the forms in 44 show:

| | | | | |
|-------------|----------------|-------------------|----------------|--------------|
| 44. mungkum | mungkumungku-n | mungkumungku-ngad | mungkumungku-r | 'wooden axe' |
| jumpuju | jumpujumpu-n | jumpujumpu-ngad | jumpujumpu-r | 'dragonfly' |

The underlying stems are clearly the reduplicated forms /mungkumungku/ and /jumpujumpu/. Applying Apocope first produces the intermediate [mungkumungk] and [jumpujump]. Cluster Reduction will now remove the final consonants, giving other intermediate forms, [mungkumung] and [jumpujump]. At this point, N.A.C.T. must be applied in order to derive the correct

phonetic forms [mungkumu] and [jumpuju].

| | | |
|-------------------|----------------|-------------------|
| 45. | /mungkumungku/ | /mungkumungku-in/ |
| Vowel Deletion | — | ∅ |
| Apocope | ∅ | |
| Cluster Reduction | ∅ | |
| N.A.C.T. | ∅ | |
| phonetic | [mungkumu] | [mungkumungkun] |

In addition, Sonorantization (9) must follow Apocope, since the /rt/'s and /t/'s that are converted to /r/ and /d/ are not only underlying ones, but also those which precede a vowel that deletes by Apocope:


| | | | | | |
|-----|----------|--------------|-----------------|----------------|----------------|
| 46a | kirtikir | kirtikirti-n | kirtikirti-ngad | kirtikirti-wur | 'moon' |
| | kampud | kamputa-n | kamputa-ngad | kamputa-r | 'pandanus nut' |

Underlying /kirtikirti/ is a polysyllabic noun ending in a vowel and so will be converted to [kirtikirt] by Apocope. But now Sonorantization must apply to convert the above to [kirtikir].

| | | |
|-----------------|--------------|-----------------|
| 46b | /kirtikirti/ | /kirtikirti-in/ |
| Vowel Deletion | -- | ∅ |
| Apocope | ∅ | |
| Sonorantization | r | |
| | [kirtikir] | [kirtikirtin] |

In 47, I assemble all the required linear orderings, regardless of which principle may be applicable. The orderings are indicated by the solid lines connecting the rules. Rules not so connected may be applied in either order, or simultaneously, with no differing empirical consequences.

47. Summary of Linear Rule Ordering

- 
- Vowel Lowering (24, 6, 4)
 - Vowel Backing (24, 23)
 - Apocope (28)
 - Sonorantization (9)
 - Cluster Reduction (30)
 - Non-Apical Consonant Truncation (36)
 - Vowel Deletion (14)
 - Laminalization (11)

2.2.5 Monosyllabic noun stems

Consider the following paradigms:

| | | | | | |
|-----|---------|---------|----------|----------|-------------|
| 48. | ril-ta | ril-in | ril-ngad | ril-ur | 'neck' |
| | marl-ta | mar-in | mar-ngad | mar-ur | 'hand' |
| | tur-ta | tur-in | tur-ngad | tur-ur | 'excrement' |
| | wun-ta | wun-in | wun-ad | wun-kur | 'rain' |
| | karn-ta | karn-in | karn-ad | karn-kur | 'grass' |
| | kang-ka | kang-in | kang-ad | kang-kur | 'speech' |
| | jang-ka | jang-in | jang-ad | jang-kur | 'some' |

It is evident from inspection of the inflected forms that all noun stems in 48 are monosyllables of shape CVC. The alternants for the inflections selected by any given noun are the same as for a disyllabic stem ending in the same consonant, e.g. /ril-/ and /thungal/ inflect identically (48, 7) as do /wun-/ and /yadaman/ (48, 1), and so on. With respect to the inflected forms, then, there is nothing in 48 that is not predicted from the independently needed rules of 17. However, the nominatives in 48 all display a phonological augment: /-ta/ after stems ending in an apico-alveolar /l/ or /n/; /-rta/ (written /-ta/) after those ending in an apico-domal /r/, /n/; and /k/ after a stem ending in a velar /ng/. After a first approximation, then:

49. Augmentation (first version)

To a monosyllabic nominative noun, add an augment of shape /Ca/, where /C/ is a stop matching the position of articulation of the stem-final consonant.

The stem-final consonants exemplified in 48 are all continuant sonorants. Other consonants are possible in stem-final position, and they do turn up on monosyllables:

| | | | | | |
|-----|--------|---------|----------|---------|---------|
| 50. | ted-a | ted-in | ted-ngad | ted-ur | 'thigh' |
| | yak-a | yak-in | yak-ad | yak-ur | 'fish' |
| | relk-a | relk-in | relk-ad | relk-ur | 'head' |
| | tudk-a | tudk-in | tudk-ad | tudk-ur | |

When a stem ends in a consonant that is not a continuant (i.e. when it ends in /d/ or a stop), as in 50, then it appears that the augment consists of the low vowel /a/ only. The version of Augmentation presented above does ~~not~~ express this and must be modified.

51. Augmentation (second version)

To a monosyllabic nominative stem, add an augment:

- i. /Ca/ after a sonorant continuant consonant, where /C/ is a stop matching the position of articulation of the consonant.
- ii. /a/ otherwise.

Some monosyllabic stems evidently end in a vowel.

52. tja-a tja-y-in tja-ngad tja-w-ur 'foot'
 ru-w-a ru-y-in ru-ngad ru-ur 'body grease, fat'

It looks like the augments in the nominative are /-:/ (vowel length) and /-wa/, but it can be shown that the Augmentation rule stated informally as 51 is sufficient.

From 51i, we predict the augment /-a/ after a stem ending in a vowel, like /tja-/, /ru-/, thus giving the forms [tja-a] and intermediate [ru-a] (ultimately [ruwa]).

We have seen that a suffix vowel deletes after a stem vowel with some generality, but the rule of Vowel Deletion (14) cannot be applied here, for [*tja] and [ru] would result. Evidently, then, Vowel Deletion cannot apply to the second vowel of a word, i.e. the rule needs to be restated as in 53.

53. Vowel Deletion (revised from 14)

$$V \longrightarrow \emptyset \quad / \quad CVC_1V+ \text{ ---}$$

A sequence of unlike vowels is broken up phonetically by a glide:

underlying /ja-in/ is phonetically /jayin/

underlying /ja-ur/ is phonetically /jawur/

underlying /ru-in/ is phonetically /ruyin/

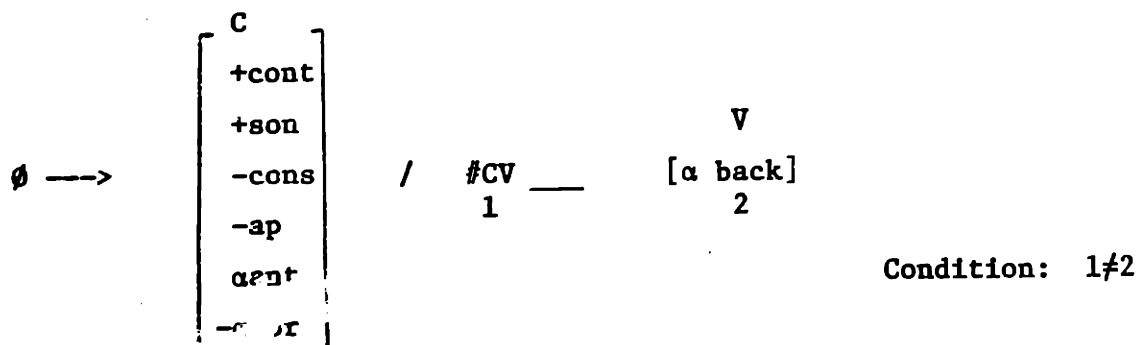
and

intermediate /ru-a/ is phonetically /ruwa/.

So, when a vowel sequence is not reduced by Vowel Deletion, then it is split up by Glide Insertion. The glide /y/ appears before a front vowel as in /ja-y-in/, /ru-y-in/, and the glide /w/ before a back vowel,

/ja-w-ur/, /ru-w-a/.

54. Glide Insertion

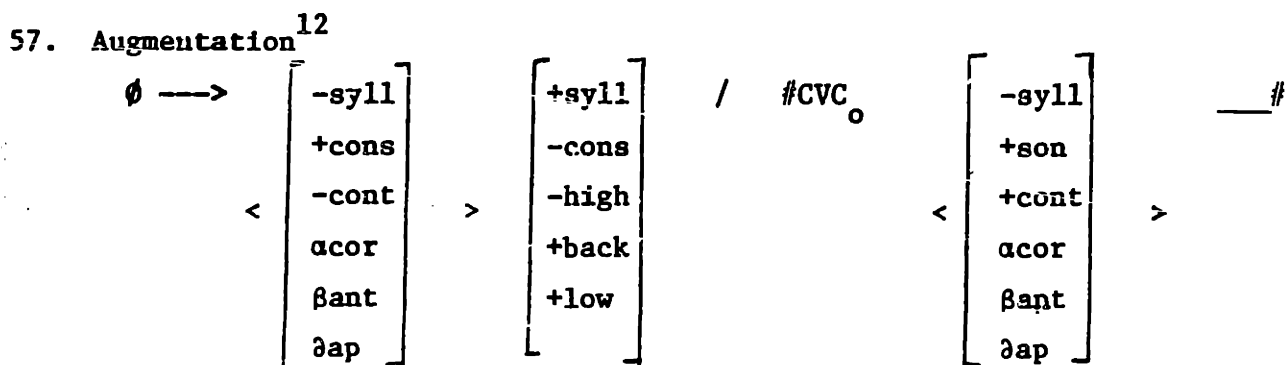


This rule will insert an anterior non-coronal glide, i.e. /w/ before a back vowel, as in /ru-w-a/, and a non-anterior coronal glide /y/ before a non-back vowel, as in /ru-y-in/. The condition ensures that Glide Insertion will not insert a glide between like vowels. Glide Insertion must, however, apply to the output of Vowel Lowering, as an examination of 56 shows.

56. kuwa kuun kuungar kuur 'eye'

The accusative and future forms are quite regular, if we take them to be based on /kuu/ with the expected alternants /-n/ and /-r/ added. But this leaves the nominative as a puzzle, since it has a short /u/. The key lies in the final vowel of the nominative /a/: this could be derived not from underlying /a/, but instead from underlying /u/, by Vowel Lowering. When Vowel Lowering has converted underlying kuu to intermediate kua, thereby creating a sequence of unlike vowels, then Glide Insertion can apply, yielding the correct kuwa.

Since the presence of the glide in nominatives like /ruwa/ (52) has nothing to do with the Augmentation rule, it seems safe to conclude that the latter rule is essentially as stated in the second preliminary version (51). The class of segments that select the augment /Ca/ must be specified as continuant sonorants, and as non-syllabic:



The angle bracket convention utilized in 57 ensures that the consonant of the augment is selected just if the stem ends in a sonorant continuant consonant. The alpha notation (α, β, ∂) ensures that whatever value the position features coronal, anterior, and apical have for the stem final continuant sonorant, the augment consonant will match those feature values.

Any stem with a long vowel fails to undergo Augmentation.

58. maarn maarn-in maarn-ad maarn-kur 'spear'
 peed peed-in peed-ngad peed-ur 'ti-tree species'

Clearly, a long vowel is phonologically two syllables, something reflected in the orthographic convention of writing a long vowel as a double vowel.

Augmentation must precede Vowel Lowering (24), otherwise incorrect forms would result, as the following two derivations show.

| | |
|-----|------------------------|
| | /ru/ |
| * (| Vowel Lowering a |
| | Augmentation .a |
| | [*raa] |

| | |
|---|------------------------|
| | /ru/ |
| (| Augmentation .a |
| | Glide Insertion w |
| | Vowel Lowering - |
| | [ruwa] |

2.2.6 Vowel Deletion and Glide Insertion

The two rules of Vowel Deletion (53, 14) and Glide Insertion (54) both affect vowel sequences. Vowel Deletion eliminates the second vowel, as in /thawa-in/ ---> [thawan], while Glide Insertion splits up the vowel sequence, as in /tja-in/ ---> /tjayin/. The two rules are written in transformational form here to bring out the similarity and difference:

59. Glide Insertion:

V - V
1 2 ---> 1+G+2 where 1 is in the initial syllable

Vowel Deletion:

V V
1 2 ---> 1 \emptyset where 1 is not in the initial syllable

A variety of ways are available to constrain the two rules correctly. One way is to state them as in 53 and 54, i.e. with the environment fully specified. Two other alternatives involve applying the rules in a fixed order, with the environment fully specified only for the first of the two rules. The second will then apply elsewhere. These two bleeding orders are shown by the versions of 59.

60. i Vowel Deletion: V ---> \emptyset / CVC₁ⁿV+ ____
 Glide Insertion: \emptyset ---> glide / V+ ____V
- ii Glide Insertion: \emptyset ---> glide / #CV+ ____V
 Vowel Deletion: V ---> \emptyset / V+ ____

I can see no empirical difference among these three alternatives.

2.2.7 Vowel Harmony

A few monosyllabic nouns exhibit stem-vowel alternations.

61. yud-a yid-in yud-ad yud-ur 'body'
 nyut-a nyij-in nyuth-ad nyith-ur 'fire, firewood'
 jul-ta jil-in jul-ngad jul-ur 'hair'

Evidently, in an inflected monosyllable where the initial consonant is a lamino-alveolar /ny/, /j/, /y/, but the second consonant is not from this class underlyingly, then the high vowel in the stem assimilates in backness to the second vowel:¹³

62. Vowel Harmony

$$\begin{bmatrix} +\text{syll} \\ +\text{high} \end{bmatrix} \longrightarrow [\alpha\text{back}] / \# \begin{bmatrix} -\text{syll} \\ -\text{ant} \\ +\text{cor} \\ +\text{distr} \end{bmatrix} \longrightarrow \begin{matrix} C_o + C_o \\ C_o \# \end{matrix} \begin{bmatrix} +\text{syll} \\ \alpha\text{back} \end{bmatrix}$$

This rule is reminiscent of Vowel Backing (24, 23) in that both rules apply to a vowel that follows a lamino-alveolar consonant. However, there is no way to collapse the two rules.

2.2.8 Checklist of rules so far

The following rules have been motivated to this point. Required rule ordering is shown by connecting lines.

Augmentation (57)

Vowel Lowering and Backing (24)

Apocope (28)

Sonorantization (9)

Cluster Reduction (30)

Non-Apical Consonant Truncation (36)

Vowel Deletion (53, 14) }

Glide Insertion (54) }

for ordering, see section 2.2.6

Laminalization (11)

Vowel Harmony (62)

2.3 Genitive, Locative, Instrumental, and Comitative

The inflections which are more restricted for syntactic and semantic reasons, than the accusative, non-future, and future, are the genitive, locative, instrumental, and comitative.

2.3.1 Genitive

The subject of a topicalized sentence, the passive agent (under certain circumstances), and a possessive phrase all take the genitive case. The form of the genitive is /-ngan/ following nasals, and /-kan/ elsewhere.

63. a ngawu-kan karta (dog/GN offspring) 'dog's offspring'
 b pidngen-ngan werne (woman/GN food) 'woman's food'

Some nouns ending in a stop or nasal seem to be counter-examples to the statement just made about the form and distribution of alternants. These are illustrated below.

- | | | | | |
|----------------|--------------|--------------|--------------|---------|
| 64. NOMINATIVE | ACCUSATIVE | NON-FUTURE | GENITIVE | |
| yak-a | yak-in | yak-ad | yak-an | 'fish' |
| thurada | thuradang-in | thuradang-ad | thuradang-an | 'shark' |

From the nominative, accusative, and non-future forms, we can conclude that the two nouns in 64 are abstractly /yak/ and /thuradang/. Apparently, the alternants cited above do not appear after velars: [*yak-kan], [*thuradang-ngan]. But setting up a special alternant /-an/ for nouns ending in velars does not give direct expression to the generalization that it is double consonants (geminate) that are disallowed phonetically. Instead, I propose that the underlying representation of the above genitives are /yak-kan/ and /thuradang-ngan/, and they are reduced to [yakan], [thuradang-an] by a rule of Degemination.

65. Degemination

$$\begin{array}{c} C \longrightarrow \emptyset \quad / \quad C+ \text{---} \\ 1 \qquad \qquad \qquad 2 \end{array} \qquad \text{Condition: } l=2$$

The noun /tangka/ has an irregular genitive /tangamen/, besides /tangkakan/. Historically, this undoubtedly derives from an expression of source. There is a formative /-men/ in Lardil which creates words expressing source:

mela-men werne (sea-source food) 'food of the sea', i.e. fish

2.3.2 Locative

The locative category is represented by /-nge/ after stems ending in a nasal; /-e/ after other consonants; and, after a vowel, a copy of that vowel.

66. a yadaman-nge 'on the horse'
 b thur--l-e 'on the tree/thing'
 c kela-a 'on the beach'

The locative ending is not subject to truncation, nor does it undergo the Vowel Backing rule (24, 23). For example, the locative of /nyuta/ 'fire' is /nyij-e/, not /*nyij-a/. Thus Lardil presents counterexamples to proposed properties of phonological rules. Chomsky and Halle suggest that "any rule which applies to a string of the form XYZ also applies to a string of the form ... XY+Z, where X,Y,Z stand for sequences of zero or more units and + represents formative boundary." (1968:364).

Since a word consisting of a single morpheme with an intermediate representation like [*pulje] 'heart' obligatorily undergoes Vowel Backing to [pulja], the above constraint predicts that [nyije] should also undergo the rule, which it does not: [*nyina]. That locatives do not undergo truncation can be handled by a constraint to the effect that this rule blocks in certain inflected forms such as the locative. This constraint would contradict a proposed general constraint that while "rules cannot look back at any arbitrary stage of a derivation", nevertheless they are permitted "to distinguish between derived and non-derived representations, and the constraint is always that the rule applies to the former only" (Kiparsky 1973:25). Evidently, Lardil nouns present an instance where the non-derived (nominative) undergoes a set of rules (truncation, Vowel Backing), while the derived forms (such as locative) may not undergo these rules.

One analysis that eliminates some of the counterexamples to proposed general constraints is this: the locative is abstractly /-nge/ after nasals and /Ce/ elsewhere, where /C/ is some consonant that always gets deleted. The presence of this /C/ will block Vowel Backing where required, provided /C/ is not a lamino-alveolar. To delete /C/, an ad hoc rule can be formulated, but the plausibility of this solution is greatly strengthened if an independently needed rule is invoked. There is available one candidate, Degemination (65). This requires that /C/ be a copy of the preceding consonant: thus the locative /nyije/ would derive from /nyij+jje/. Unfortunately, this representation meets the structural description for Vowel Backing, and so the explanatory value of positing the alternant /-Ce/ is nil.

Various other alternatives could be considered, but none that I know

of has both a non-lamino alveolar consonant in the alternant /-Ce/ (and hence some explanatory value), as well as a way to delete /C/ by an independently motivated rule.

2.3.3 Instrumental

There are four inflectional categories which are represented by a single set of alternants: /-kur/ after nasals; /-ur/ after other consonants; /-wur/ after the high front vowel; /-r/ after other vowels. One of these, the future tense, has already been exemplified extensively, c.f. 67a. One of the others is the infinitive form (67b). I assume this identity between the future and infinitive forms of nouns (which does not extend to verbs) to be an instance of neutralization.

67. a Mangarta wereth-ur parnga-r.

(child throw/F stone/F

'The child will throw a stone.'

b Ngata kudi kun maananga-n werej-id kun parnga-r.

(I see EV child/AC throw/INF EV stone/INF

'I saw the child throwing a stone.'

c Mangarta netha kun yadpuj-in. parnga-r.

(child hit EV snake/AC stone/IN

'The child hit a snake with a stone.'

The other inflectional category illustrated above is the instrumental (67c), which marks the instrumental phrase. (A further category with the same alternants, the Propriative, is covered in section 5.)

2.3.4 Comitative

A nominal expression takes the comitative /-ngun/ to express accompaniment.

68. Niya puti kun yadaman-ngun.

(he fall EV horse/Comitative)

'He fell horse and all.'

'He fell with his horse.'

2.3.5 Summary of 2.3

The Genitive is /-ngan/ after nasals, /-ken/ elsewhere. The Locative is -nge after nasals, -e after other consonants, and after a vowel, a copy of the vowel. The Instrumental is -kur after nasals, -ur after other consonants, -wur after the high front vowel, -r after other vowels. The Comitative is invariant: -ngun.

A sequence of identical vowels is reduced by Degemination (65).

2.4 Verbal affixes

A number of the possible inflected forms of a noun have a verbal nature.

2.4.1 Propriative and Privative

The possession of, or lack of, something may be expressed by inflected forms of the noun. The possession, or propriative, inflection has exactly the same alternants as the future morpheme (see 2.1.5, 2.3.3). This category expresses only possession, accompaniment being expressed as indicated in 4.4. The form expressing lack, the privative, has the shape /-wed/.

69. a Ngata yadaman-kur.

(I horse-Propriative)

'I have a horse.'

b Ngata yadaman-wed.

(I horse-Privative)

'I lack a horse.' 'I am without a horse.'

2.4.2 Goal

When a noun functions as the goal of motion, it takes one of two endings, depending on whether the motion is intransitive (i.e. agent and theme are identical) or transitive (agent and theme are not identical). The intransitive goal category has the alternants /-ya/, /-kiya/, /-iya/. The form /-kiya/ is selected by nouns ending in a nasal; /-iya/ is selected by nouns ending in non-nasal consonants; /-ya/ follows nouns ending in vowels.¹⁴ The sentences below illustrate these alternants.

70. a **Tangka parnga-ya kun.**
 (man stone/go EV
 'The man went to a rock.'
- b **Tangka yadaman-kiya kun.**
 (man horse/go EV
 'The man went to a horse.'
- c **Tangka thungal-iya kun.**
 (man tree/go EV
 'The man went to a tree.'

The inflectional category expressing transitive motion to a goal is represented by /-mari/ after all nouns.

71. a **Tangka parnga-mari kun maarn-in.**
 (man stone/put EV spear/AC
 'The man put a spear on the stone.'
- b **Tangka yadaman-mari kun maan-in.**
 (man horse/take to EV spear/AC
 'The man put a spear on the horse.'
- c **Tangka thungal-mari kun maarn-in.**
 (man tree/put EV spear/AC
 'The man put a spear on the tree.'

2.4.3 Source

When a nominal functions as the source of motion, then again there exist appropriate inflected forms. For intransitive motion, the inflection is /-pudii/, and for transitive motion, /-pudi/.

72. a **Ngata thungal-pudi kun yadaman-in.**
 (I tree-bring EV horse/AC
 'I brought/took the horse from a tree.'
- b **Ngata thungal-pudi kun.**
 (I tree come EV
 'I came/went from the tree.'

The goal and source expressions show their verbal nature morphologically as well as syntactically. The forms exemplified in 70 - 72 inclusive may all be inflected for tense, and all the other categories possible with verbs.

2.4.4 Lamino-Alveolar Consonant Conversion

The forms of some nouns with verbal affixes vary phonetically. Below, some noun paradigms are presented: in 73a,b,c no variation is observable; but in 73d,e there is variation. The future is included for comparative purposes.

| 73. | NOMINATIVE | FUTURE | SOURCE(TRANS.) | GOAL(TRANS.) | |
|-----|------------|-------------|----------------|--------------|---------------|
| a | nyerwe | nyerwi-wur | nyerwi-pudi | nyerwi-mari | 'place' |
| b | karnjin | karnjin-kur | karnjin-pudi | karnjin-mari | 'wallaby' |
| c | thungal | thungal-ur | thungal-pudi | thungal-mari | 'tree, thing' |
| d | wik-a | wik-ur | wij-pudi | winy-mari | 'shade' |
| e | werne | werneng-kur | werneny-puri | werneny-mari | 'food' |

It is evident that the phonetic form of the nouns in 73d,e varies when the verbal affixes are attached, in that the stem-final consonant varies. (The augmentation in the nominative /wik-a/ and the truncation in /werne/ have already been accounted for.) Apparently, if the stem-final consonant is an apical, e.g. /l/, /n/, then no change appears in the verbal forms, but if the stem ends in a non-apical, /k/, /ng/, then that consonant is converted to the corresponding lamino-alveolar before the verbal affix beginning with the labial stop /p/, and in all instances to the nasal lamino-alveolar /ny/ before the nasal labial /m/.

74. Lamino-Alveolar Consonant Conversion

$$C \quad [-ap] \rightarrow \begin{bmatrix} -ant \\ +cor \\ <+nas> \end{bmatrix} / \quad _ + \quad \begin{bmatrix} +ant \\ -cor \\ <+nas> \end{bmatrix}$$

The derivations below illustrate 74.

| | | | | |
|-----|--------------|--------|------------|------------|
| 75. | underlying | /wik/ | /wik-pudi/ | /wik-mari/ |
| | Augmentation | a | — | — |
| | L.A.C.C. | — | j | ny |
| | phonetic | [wika] | [wijpudi] | [winyMari] |

2.4.5 A Medial Non-Apical Deletion

A further set of nouns with verbal suffixes exhibit phonetic alternation. These are presented in 76, with both the nominative and accusative for comparison.

| 76. NOMINATIVE | ACCUSATIVE | PRIVATIVE | |
|----------------|------------|-----------|---------|
| wik-a | wik-in | wi-wed | 'shade' |
| relk-a | relk-in | rel-wed | 'head' |

In the privative forms, the stem consonant is deleted, as we can see from a comparison with the nominative and accusative forms. For example, the underlying /wik-wed/ becomes /wi-wed/ phonetically. The consonant that remains, /w/, is not at all identical to the one that deletes, /k/, and so it cannot be Degemination that is at work here. Anticipating further alternations described in later sections and chapters, I assume that the rule applies for non-apicals.

77. Medial Non-Apical Deletion

C

[-apical] ---> \emptyset / ___+ [-distr]

2.5 Reduplication and compounding

2.5.1 Reduplicated plurals

Plurals may be formed by reduplication of the entire noun stem, but this is marginal and the forms are rare in use. Normally, a nominal, apart from a pronoun, is not marked for number. (Pronouns are treated in a separate chapter.)

| | |
|-------------|--------|
| 78. marun | 'boy' |
| marun-marun | 'boys' |

The reduplicated forms /mangkal-mangkal/ 'old men' and /kapalapal/ 'old women' have no corresponding singulars /*mangkal/, /*kapal/.

2.5.2 Noun compounds

The compounding of nouns is very common in Lardil, and a striking number of common objects are designated by compounds. Semantically, the first member of the compound is the head. In general, both the members of

such compounds undergo the various phonological rules, and both take any inflectional ending assigned to the noun. For example, in the compound which is underlyingly /rimpi-mar/, the first noun undergoes Vowel Lowering, and the second undergoes Augmentation: thus /rimpe-marlta/. The accusative form of this compound is /rimpin-marin/. The major inflected forms for this compound and others are set out below. (The nouns involved are: /turlta/ 'excrement', /wunta/ 'rain', /marlta/ 'hand', /jaa/ 'foot', /thamad/ 'ankle', /kuwa/ 'eye', /wadka/ 'sun', /jalta/ 'vagina', /reman/ 'mouth', /julta/ 'hair'.)

| 79. NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE |
|----------------|----------------|-------------------|--------------------------------|
| turlta-wunta | turin-wunin | turngad-wunad | turur-wunkur 'cloud' |
| pudka-marlta | pudkun-marin | pudkungad-marngad | pudkur-marur 'fingers' |
| thamar-jaa | thamarin-jayin | thamarngad-jangad | thamarur-jawur 'heel' |
| rimpe-marta | rimpin-marin | rimpingad-marngad | rimpiwur-marur 'fingernail' |
| rimpe-jaa | rimpin-jayin | rimpingad-jangad | rimpiwur-jawur 'toenail' |
| kuwa-wadka | kuun-wadkun | kuungad-warkungad | kuur-wadkur 'solar disc' |
| jalta-reman | jalin-remanin | jalngar-remanad | jalur-remankur 'tongue' |

Although compounds like /turlta-wunta/ and /pudka-marlta/ are candidates for the truncation rules on the higher N cycle (i.e. the compound cycle), it is quite evident that they do not undergo truncation, otherwise there would be forms like /*turlta-wun/ and /*pudka-mar/, instead of the actual forms just cited, the ill-formed ones being derivable by application of Apocope and Cluster Reduction in the usual way. It has been noted earlier in connection with the locative forms, section 2.3.2, that derived forms are blocked from undergoing truncation (in the instance of the locative at least), and this observation must now be extended to other derived forms, the compounds. However, it will be seen in the next sub-

section that a limited number of compounds do undergo truncation.

2.6 Irregular forms and minor rules

Some paradigms present complications, in that they require rules of limited application, or contain true irregularities.

2.6.1 Truncation in compounds

As just pointed out, the majority of compounds are not subject to truncation on the second N cycle. However, compounds having /tangka/ as the second member regularly truncate, as do one or two compounds each for the nouns /kuu/ 'eye' and /relka/ 'head'.

Some of the expressions in which /tangka/ truncates are really noun phrases other than compounds, but they are noun phrases in common use and thus are fixed phrases. A list of these forms is given below: the lexical items involved being (a) /tangka, tanga-/ 'man', /tiin/ 'this', /pata/ 'that (to the west)', /manga/ only in /mangarta/ 'child'; (b) /julta/ 'hair', /relka/ 'head', /panga/ known only in /pangaku/ 'eyebrow', /nyulta/ in /nyultaku/ 'face', /kuu/ 'eye'.

| 80. NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE |
|----------------|--------------|--------------------|-----------------|
| a tangka | tanga-n | tangka-ngad | tangka-r |
| tiin-ta | tiinin-angan | tiinad-tangkangad | tiinkur-tangkar |
| pata-rta | patjin-angan | pathad-tangka-ngad | pathur-tangkar |
| manga-rta | maan-angan | mangad-tangkangad | mangku-tangkar |
| b julta-rel | jilín-relin | julad-relkad | julu-relkur |
| c panga-ku | | | panga-kuur |
| nyulta-kn | | | |

The derivation of /patarta/ (80a) is contrasted with that of /turítawunta/ in 79. To clarify the role of the cycle here, brackets are supplied.

| | | |
|---------------------------------|---------------|----------------|
| 81. underlying | [pat] [rtang] | [turl] [wun] |
| First cycle | | |
| Augmentation | a ka | ta ta |
| end of cycle | patartangka | turlta wunta |
| Second cycle | | |
| Apocope | ∅ | - blocked - |
| Cluster Reduction | ∅ | |
| Non-Apical Consonant Truncation | ∅ | |
| end of cycle | [patarta] | [turlta wunta] |

2.6.2 Apical Deletion

In addition to Apocope and Cluster Reduction, several other rules are required to account for the paradigms of 80a.

The initial segment of /tangka/ deletes altogether after /n/ in the Accusative forms /tiininangan/, /pajinangan/, etc.

We are dealing here with deletion of the anterior apical stop /t/ after an anterior apical nasal, in the intermediate representations /tiinin tangan/, /pajintangan/, etc. (cf. 83).

| | | |
|----------------|--------------------|-------------------|
| 83. underlying | /tiin-in-tanga-in/ | /pat-in-tanga-in/ |
| Vowel Deletion | ∅ | ∅ |
| Laminalization | | j |
| intermediate | [tiinin tangan] | [pajintangan] |

But /t/ does not in general delete after /n/, cf. /wunta/, not /*wuna/ from /wun-/ augmentation. The only rule converting /nt/ to /n/ so far is Cluster Reduction, which, for example, (after Apocope applies to underlying /kantukantu/) converts intermediate /kantukant/ to /kantukan/. But this rule cannot apply to intermediate /tiinintangan/, because the cluster in question is not word-final (cf. 30). Evidently, a separate statement, restricted almost exclusively to the noun /tangka/ is needed:

84. Apical Deletion

t → ∅ / n⁻+___ (in a restricted set of formatives including those derived from /tang(k)a/ 'person' and where the n is in the Accusative formative.)

2.6.3

The non-future of nouns in /tangka/ is not /*tangka-ngad/ but /tanga-ngad/. To get the actually occurring forms in /tangangad/, it must be assumed that there is a minor rule of k-Elision. This rule applies to only a few words in the language (see chapter 6 for k-Elision in verbs).

The underlying forms for this noun in the nominative and future can be assumed to be /tangka/. The derivations in 85a shows that the correct forms are derivable, assuming truncation in the nominative on the second cycle.

| | | | | |
|-------|-----------------------|-------------------------|---------------|-------------|
| 85. a | underlying | /mang-ngad-tangka-ngad/ | | |
| | Degemination | ∅ | | |
| | k-Elision | ∅ | | |
| | phonetic | mangadtangangad | | |
| b | underlying | /tim-tangka/ | /pat-rtangka/ | /tangka-ur/ |
| | First cycle | | | |
| | Vowel Deletion | | a | ∅ |
| | Augmentation | | | |
| | Second cycle | | | |
| | Apocope | ∅ | ∅ | |
| | Cluster Reduction | ∅ | ∅ | |
| | N.A.C.T. | ∅ | ∅ | |
| | Anterior Assimilation | t | | |
| | | [tiinta] | [patarta] | [tangkar] |

86. k-Elision

k → ∅ / # CV ng __ a

Restricted, in nouns, to: /tangka/ before /n/, and /mangka/ before /t/.

In the accusative, k-Elision clearly applies. By Vowel Deletion, the underlying /tangka-in/ will be converted to /tangkan/, and subsequently k-Elision produces tangan. Similarly derived are the other accusatives:

87. /ti in-in-tangka-in/

First cycle

Vowel Deletion \emptyset

k-Elision \emptyset

Second cycle

Apical Deletion \emptyset

[ti ininangan]

2.6.5 The derivation of /maanangan/ and /wiru in/: Vowel Lengthening

On the basis of the observations in 2.6.1, much of the paradigm of /mangarta/ 'child' is accounted for, assuming this to be a compound of /mang-/ and /tangka/. Three aspects of the paradigm do require investigation, however. (i) If the nominative were underlying /mang-/ plus /tang-/, we would expect /*mangkarta/ phonetically: so k-Elision is relevant.

88. /mang- rtangka/

First cycle

Augmentation ka

k-Elision \emptyset

Second cycle

Apocope \emptyset

Cluster Reduction \emptyset

Non-Apical Consonant Deletion \emptyset

[*mangarta]

The accusative /maanangan/ does not derive by any rules developed so far. Assuming underlying /mang-tanga-/ for the stems results in /*mang in angan/.

89. /mang-in-tanga-in/

Vowel Deletion \emptyset

Apical Deletion \emptyset

[*mang inangan]

To convert /*mang inangan/ to /maanangan/ requires a rule that reduces /a/ plus the sequence /ngi/ to a long /aa/ (90). At this point such a rule is totally ad hoc, applying to no other nouns. However, it will be seen ultimately that this rule applies to verbs as well. It will be seen that the shared environment for /angi/ ---> /aa/ is before a nasal, and in

anticipation of this, I have written this as part of the rule.

90. Vowel Lengthening

- ng i C
[+nasal] .
1 V 3
1 V 3

Thus the derivation in 89 continues as in 91:

91. /manginangan/ (from 89)

Vowel Lengthening aa
[maanaŋan]

Vowel lengthening applies in the paradigm of another noun,

/werne/ 'food'.

| NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE |
|------------|------------|------------|------------|
| werne | winiin | wernengad | wernengkur |

The alternation in height between e and i is quite unpredictable, but if we assume that the stem is /werneng-/ alternating with /wirning-/, then all other aspects of the paradigm are predictable.

The nominative is underlyingly /werneng/, from which /werne/ results by Non-Apical Consonant Truncation. The Non-Future and Future are completely regular: /werneng-ad/, /werneng-kur/. Without trying to account for the /i,e/ alternation, the accusative is derived as follows:

underlying /wirning-in/
Vowel Lengthening ii
[wirniin]

2.6.6 /r/ Deletion

In the future of /mangarta/, there is a slight discrepancy from what is predicted:

92. /mang-kur-rtangka-ur/

First cycle

Vowel Deletion Ø

Second cycle

[*mangkurrtaŋkar]

The segment /r/ of the future morpheme is absent in the recorded forms: /mangkurtangkar/. This is a consistent characteristic of many other nouns in the future. Some future forms are displayed in 93 where the parenthesized /r/ is predicted but absent in the transcribed form.

93. a katmu(r)-remankur 'skull'
 julu(r)-relkur 'head-hair'
- b kiwu(r)-rtumur 'middle of back'
 puyidu(r)-karnjinkur 'joey'
 panga(r)-kuur 'eyebrow'
 tennga(r)-ngawithur 'line running down middle of chest and stomach'

In 93a, the absence of the /r/ could be taken as due to Degemination, but this will not account for the forms in 93b. It is not clear to me whether the absence of /r/ can be stated any more generally than 94. (In particular, it does not seem to be collapsible with the Attrition rule, dealt with in Chapter Seven.)

94. /r/ Deletion

The /r/ of the future can be optionally, and preferably, deleted on the first member of a compound.

2.6.7 /muduku/

The noun /muduku/ 'spearthrower' ought to truncate in the nominative but it does not.

| 95. NOMINATIVE | ACCUSATIVE | NON-FUTURE | FUTURE | |
|----------------|------------|-------------|----------|-----------------|
| muduku | muduku-n | muduku-ngad | muduku-r | 'spear-thrower' |

However, in the compound /kuwa-mudu/ 'hook of spearthrower', lit. 'eye (of) spearthrower', it does truncate. This is quite irregular.

2.6.8 Irregular nouns in velars

Disyllabic and polysyllabic nouns which end in a syllable containing a velar are frequently irregular in their declension, as the following paradigms show. There are two sets here, the first (96) containing nouns ending in /-ngu/ or /ku/ in the nominative, but in /-nga-/ or /-ka-/,

respectively, when taking the accusative. No independently motivated rule will account for this /u/, /a/ alternation. It will be recalled that a high vowel /u/ lowers to /a/ in word final position generally (24).

| 96. NOMINATIVE | ACCUSATIVE | |
|----------------|-------------|------------------|
| kuntungu | kuntunga-n | 'shield' |
| kethuku | kethuka-n | 'policeman bird' |
| pulthuuku | pulthuuka-n | 'bird species' |
| ruruku | ruruka-n | 'initiate' |

The second type of irregular noun is exemplified by /wangal/ 'boomerang'. While the paradigm presented above (26b, 29) shows that this noun ends in velar /k/ underlyingly, /wangalk-/, thus having the non-future /wangalk-ad/, for some speakers alternate forms are encountered, as /wangalngad/ (non-future).

The existence of such forms confirms a hypothesis presented by Hale (1973) for which only indirect evidence was available. Contrasting a phonological analysis of Lardil, essentially like that in the present chapter, with an analysis of Damin, Hale reached the conclusion quoted below. The 'inflected forms of /ng/ -final stems' referred to are forms such as /kudka/ 'pandja', /kudkang-in/ 'AC ', /kudkang-a / 'NF' , /kudkang-kur/ 'F' : ; cf.34.

I conclude from this that the suffixal pair which predominates in Damin nominal inflection is in fact /-ngin, -ngkur/ (Acc., Fut., respectively). Presumably these endings, like all others, are borrowed from Lardil. The only Lardil source that I can suggest for them is the inflected forms of /ng/-final stems under an analysis which assigns the nasal to the ending rather than to the stem, in defiance, of course, of the evidence which leads to the purely phonological analysis of the Lardil stems themselves. If the /ng/-final stems are in fact the source of the Damin endings /-ngin, -ngkur/, then there is at least some indication that those stems are analyzed by Lardil speakers in a way which is rather different from the completely natural analysis which follows as an automatic consequence of the phonological treatment of Lardil nominals generally. The

evidence indicates that the strictly phonological analysis of /ng/-final stems is both historically valid and synchronically natural. If Lardil speakers actually view them differently, then a reanalysis has occurred. (Hale 1973:445)

The reanalysis to which Hale is referring here entails the segmentation of, say, /kudkangin/ 'pandja/AC' not as /kudkang-in/ but rather as /kudka-ngin/. The inflectional endings would thus be: /-ngin/ Accusative, /-ngad/ Non-Future, /-ngkur/ Future. Another aspect of this reanalysis about which Hale speculated is that the inflectional base is identical to the nominative: in the above example, /kudka/.

Both aspects of this hypothesis are confirmed by the existence of forms like /wangelngad/. The Nominative form is /wangel/ (from underlying /wangelk-/ by Cluster Reduction, in the phonological analysis), and the Non-Future according to the reanalysis has the alternant /-ngad/. Hence, /wangelngad/.

The confirmation of Hale's prediction serves to support his proposed constraint on language acquisition, stated in its weak form thusly: 'there is a tendency in the acquisition of a language for linguistic forms to be analyzed in a way which minimizes the necessity to postulate underlying phonological representations of morphemes which violate the universal surface canonical patterns of the language'. (Hale 1973:420) (The surface canonical pattern in question for Lardil includes a restriction that no word may end in a velar, which is the restriction that arises as a result of the truncation rules.)

2.7 Footnotes

1. Hale uses the terms uninflected, nonfuture, and future for the Nominative, Accusative, and Future, respectively. It should in particular be noted that Hale's nonfuture is not the Non-Future of the present study.

2. Cf. Hale (1973:422)

3. Cf. Hale (1973:426, fn. 32)

4. Cf. Hale (1973:423, fn.28)
5. Cf. Hale (1973:422, fn. 26)
6. While Hale has earlier stated that the vocative ... inhibits the application of not only these rules, but 'other phonological rules as well'. (1973:423, fn. 27) But Hale has since brought my attention to vocatives like yaku! 'older sister!', which has undergone truncation from underlying yakuji. So only Vowel Lowering and Vowel Backing are blocked in vocatives, and nothing is gained by claiming 'a phonologically vacuous ending' (Hale 1973:423) for the vocative forms.
7. Cf. Hale (1973:424)
8. While only k's delete in 29, it will be seen directly that the rule must be more general, as formulated in 30.
9. Cf. Hale (1973:425)
10. The alternation in vowel height in the Accusative form wirniin is a true irregularity. However, the long vowel in the final syllable of this noun is derived by a rule of Vowel Lengthening. See subsection 2.6.5.
11. Cf. Hale (1973:426)
12. Cf. Hale (1973:427)
13. This rule doesn't affect a vowel like the i in nyithun, which word lacks an internal morpheme boundary.
14. The incremental portions of these forms, -ki, -i, appear otherwise only in personal pronouns. See chapter 4.

CHAPTER THREE

VERBS

3.1 Inflectional categories: some paradigms

3.2 The Passive/Reflexive and the Reciprocal

3.3 Positive Forms

3.4 Negatives

3.5 kangka

3.6 waa: Vowel Lengthening

3.7 rikur

3.8 Derivational suffixes

3.9 Footnotes

3.1 Inflectional categories: some paradigms

A Lardil verb may take one or more phonetically realized inflectional suffixes, e.g. the verb /padki/ 'chop' has for the passive voice /padkii/, with lengthening of the final vowel for the Passive (and Reflexive) Registration marker. A tense or mood suffix is also possible, e.g. /padkithur/ (Future). Negation is also shown by an inflectional suffix: compare the positive /padki/ and the corresponding negatives /padkijad/ (Negative Declarative), /padkine/ (Negative Imperative). Two or three of the categories just mentioned may co-occur and then appear in the following order:

1. Suffix ordering

(Passive) (Negative) (Tense/Mood)

For example: /padkiinengkur/ (chop/Registration/Negative/Future).

The above forms are not totally transparent in their morphology, and this is typical of Lardil verb forms. It is the purpose of the present chapter to examine the inflected forms of verbs in Lardil and establish what the morphological and phonological regularities are. On the next page are set out paradigms for /padki/, representative of disyllabic verb roots; /ma-/ 'get', typical of monosyllabic roots; and /warnawu/ 'burn', a polysyllabic verb root. Three other verbs are shown in addition: /waa/

'go, walk'; /rik-/ 'cry'; and /kang-/ 'speak'. These latter three are distinctive at one or more places in the paradigm, and have been previously considered to be irregular verbs (as in Kenneth Hale's unpublished research notes).

Some of the forms listed may be unusual or rare in use; they are cited in order to complete the paradigms for purposes of investigating morphological and phonological regularities. I argue that they are in fact (almost completely) regular.

1. Verbs warnawu- 'burn, cook', padki- 'chop', ma- 'get'

a Active

| | | positive | |
|------|--------------|------------|---------|
| UN | warnawu | padki | matha |
| NF | warnawuthad | padkithad | mathad |
| F | warnawuthur | padkithur | mathur |
| INF | warnawujid | padkijid | majid |
| ADM | warnawunymed | padkinymed | manymed |
| IM | warnawu | padki | matha |
| C/IM | warnawud | padkid | maad |

| | | negative | |
|----|----------------|--------------|-----------|
| UN | warnawujad | padkijad | majad |
| NF | warnawuned | padkined | maned |
| F | warnawunengkur | padkinengkur | manengkur |
| IM | warnawune | padkine | mane |

b Passive and Reflexive

| | | positive | |
|-----|-----------------|-------------|---------------------|
| UN | (warnawuu) | padkii | mayi |
| NF | (warnawuuthad) | padkiithad | mayithad |
| F | (warnawuuthur) | padkiithur | mayithur |
| INF | (warnawuujid) | padkiijid | mayijid |
| ADM | (warnawuunymed) | padkiinymed | mayinymed |
| IM | (warnawuu) | (padkii) | (mayi) ¹ |

| negative | | | |
|----------|-------------------|---------------|-------------|
| UN | (warnawuujad) | padkiijad | mayijad |
| NF | (warnawuuned) | padkiined | mayined |
| F | (warnawuunengkur) | padkiinengkur | mayinengkur |

2. Verbs kang- 'speak', waa 'go', rik- 'cry'

| positive | | | |
|----------|---------|------------|---------|
| UN | kangka | waa | rikur |
| NF | kangkad | waangad | rikad |
| F | kangkur | waangkur | rikur |
| INF | kangkud | waangkud | |
| ADM | kanymed | wanginymed | rinymed |
| C/IM | kangin | | |

| negative | | | |
|----------|------------|--------------|-----------------------|
| UN | kawed | wangijad | riwed, rijad |
| NF | karned | wangined | rined, rined |
| F | karnengkur | wanginengkur | rinnengkur, rinengkur |
| INF | | | rinne, rine |

| | | |
|-----------------|------|--------------------------------|
| (Abbreviations: | UN | Uninflected (Non-Future) Tense |
| | NF | Non Future |
| | F | Future |
| | INF | Infinitive |
| | ADM | Admonitive |
| | IM | Imperative |
| | C/IM | Conjoined Imperative |

It should be pointed out that five to ten inflected forms per verb have been omitted from paradigms 1-2. All the forms inflected for Non-Future, Future, or Admonitive may in addition take an accusative case inflection. See chapter 8.

The phonological rules in chapter two were motivated solely on the basis of noun forms. Indeed, a superficial examination of verbs might lead to the conclusion that the various truncation rules, as well as Augmentation, Vowel Lowering, etc., do not apply to verb forms, and that

the morphological spell-out rules must in general distinguish between noun and verb.

i. For example, consider Vowel Lowering, which converts a noun final /i/ to /e/, as in /nyedwe/ 'place' versus /nyedwi-n/ 'place/Accusative' (chapter two, section 2.1.1). This rule appears to block in the case of verbs: cf. /padki/ 'chop/UN' and other words in paradigms 1-2. A cursory inspection of inflected forms such as /padkithad/, /padkinymed/, /padkid/, indicates that the root for this verb is /padki-/. Now, in the uninflected tense form /padki/, we have a form which meets the structural description for Vowel Lowering, but the application of that rule would result in the incorrect form /*padke/. We know from 1a that the correct form is /padki/, with no trace of Vowel Lowering having applied.

ii. In chapter two, section 2.2, we have seen that the final vowel, consonant, or even syllable of a polysyllabic noun may be subject to truncation. For example, while the full noun root appears before an inflection in /jirntidpuwa-n/ 'willie wagtail/Accusative', the final syllable truncates when no inflection is added: /jirntidpu/. But the initial impression with verbs is that truncation doesn't apply. The full verb root appears in the uninflected tense: e.g. /warnawu/ 'burn', /kuwikuwi/ 'blink eyes'; cf. the Non-Futures /warnawuthad/, /kuwikuwithad/.

iii. There are clearly one-syllable verb roots, e.g. /ma-/ 'get'. In the uninflected tense form, we would expect an augment syllable. But this form of the verb doesn't, seemingly, take an augment that resembles the noun augment. From the Augmentation rule for nouns (chapter two, section 2.2), which yields e.g. /jaa/ for the uninflected form of /ja-/ 'foot', we would predict /*maa/ from /ma-/ 'get'; but the grammatical form is /matha/.

iv. The inflectional endings for verbs seem to be different from those for nouns, in comparable environments. For example, contrast the future forms for the noun root /nyedwiwur/, 'place' and the verb root /padki-/ 'chop': /nyedwiwur/, /padkithur/.

These, then, are the superficial impressions that one gets from a comparison of the paradigms 1, 2 with the results of noun phonology.

In this chapter, I argue that this view is erroneous, and that the phonological rules motivated for nouns apply in identical fashion to verb forms, and that, moreover, where both classes N and V inflect for the same categories, the morphological spell-out rules are almost completely identical for nouns and verbs.

The general strategy of this chapter is to examine the various inflectional categories in turn, as was done with nouns. The three verbs of 2 above will be examined last of all.

3.2 The Passive/Reflexive and Reciprocal

3.2.1 Passive/Reflexive

The verb forms used in passive and reflexive sentences differ from the active forms in a completely consistent way. The very first suffix added to a passive/reflexive verb form is /-yi/ after a monosyllabic root or vowel length, after a polysyllabic root. This is true regardless of what other endings may be added, so for simplicity, I'll confine discussion to forms which are uninflected for tense, as repeated here, with the formative in question set off by hyphens. Additional verbs are also displayed.

| 3. | ACTIVE | PASSIVE/REFLEXIVE | |
|----|------------|-------------------|----------------|
| a | warnawu | warnawu-u | 'burn, cook' |
| | kupari | kupari-i | 'make, repair' |
| | mirntilnya | mirntilnya-a | 'crush' |
| | padki | padki-i | 'chop' |
| | terlte | terlte-e | 'break' |
| | | yulu-u | 'carry off' |
| b | ma-tha | ma-yi | 'get' |
| | ne-tha | ne-yi | 'hit, kill' |
| | pe-tha | pe-yi | 'bite' |
| | ra-tha | ra-yi | 'spear' |

The conditioning factor governing the alternation of vowel length (a) and /-yi/ (b) is obviously root length. The latter alternant appears only with monosyllabic roots, while vowel length appears with roots of

two or more syllables. The glide in /-yi/ is predictable from the Glide Insertion rule, e.g. the noun form which is underlyingly /ja-in/ 'foot/AC' is phonetically [jayin]. Hence we can assume /ma-yi/, etc. to derive from more abstract representations:

| | | | |
|-----------------|--------|--------|---------|
| 4. | /ma-i/ | /ne-i/ | /ja-in/ |
| Glide Insertion | y | y | y |
| | [mayi] | [neyi] | [jayin] |

Thus the alternation in 3a,b is now reduced at an abstract level, to between /-i/ and a vowel copy:

| | | | |
|----|-------------------|------|---|
| 5. | Passive/Reflexive | ---> | { /-i/ after ##CV ____ copy of preceding vowel elsewhere |
|----|-------------------|------|---|

3.2.1.2 Deriving the vowel copy from /-i/ (an unworkable proposal)

Can these two alternants cited in 5 be derived from a single underlying representation, presumably /-i/? I think not, but I sketch in this subsection what seems to be a possible way in sufficient detail to refute it.

6. Vowel Gemination Hypothesis

1. The Passive/Reflexive is /-i/ underlyingly.

ii. A rule of Vowel Gemination converts V+i to VV (identical vowels) provided the first /V/ is not in the initial syllable of the verb

6ii. will convert abstract /warnawu-i/ to [warnawuu], the correct form, while not affecting, say /ma-i/, which instead undergoes Glide Insertion (4).

The Vowel Gemination rule receives independent support from the locative case of nouns (cf. chapter two).

| | | |
|----|-----------|------------|
| 7. | thungal-e | 'tree/LC' |
| | kela-a | 'beach/LC' |

Here, we could take the locative to be /-e/ underlyingly, and derive, from /kela-e/ the correct phonetic form [kelaa] by Vowel Gemination.

The argument against 6 emerges when we recall the rule of Vowel Deletion which deletes a vowel after another vowel (chapter 2). So from underlying /-in/ 'Accusative', /-ur/ 'Future' we have:

8. thungal-in vs. kela-n
thungal-ur vs. kela-r

Given that 8 is enough to establish Vowel Deletion as a rule, some way must be found to prevent /warnawu-i/ --> [warnawu] and /kela-e/ --> [kela], because these are not the correct Passive/Reflexive and Locative Case, respectively.

I see no non-arbitrary way to do this. For example, Vowel Deletion, seemingly, applies in a closed syllable and Vowel Gemination in open syllables, but this is false if we look at other forms:

9. a Vowel Deletion in Open Syllable

kela-ur-u --> kelaru 'beach/F/AC'

b Evident Vowel Gemination in a Closed Syllable

warnawu-i-ny-med --> warnawuunymed 'burn/R/ADM'

I remain, then, with the conclusion that 5 is the correct morphological spellout rule.

3.2.1.3 An irregular passive

The verb /ji-tha/ 'eat' has a suppletive stem in the Passive: /wu-yi/.

3.2.2 Reciprocal

Omitted from the paradigms in 1 are reciprocal forms, cf. 10.

10. Tangka ne-nji tiwarku.

(man hit, kill/Reciprocal yesterday)

'The man hit, killed each other yesterday.'

Reciprocals are regularly formed by adding /-nji/ immediately after any transitive verb root. It is clear from contrasting forms such as those in 11 that the reciprocal precedes all other suffixes.

11. Reciprocals

UN

NF

nenji

nenjithad

'hit/kill each other'

For the balance of this chapter, I ignore the Passive/Reflexive and Reciprocal, as there is no phonological interaction between these formatives

and any others.

3.3 Positive forms

3.3.1 Non-Futures, Future, and Uninflected Imperative

Below, I repeat the uninflected non-future, non-future, and future forms of 1 with a number of other verbs added for further comparison. The uninflected imperative is identical to the uninflected non-future in the positive paradigm, so no separate treatment is required.

| 12. | UN | NF | F | |
|-----|----------|---------------|---------------|--------------|
| a | warnawu | warnawuth-ad | warnawuth-ur | 'cook' |
| | kupari | kuparith-ad | kuparith-ur | 'make' |
| | kuwikuwi | kuwikuwith-ad | kuwikuwith-ur | 'blink eyes' |
| | padki | padkith-ad | padkith-ur | 'chop' |
| | jidma | jidmath-ad | jidmath-ur | 'pick up' |
| | terlte | terlteth-ad | terlteth-ur | 'break' |
| b | math-a | math-ad | math-ur | 'get' |
| | neth-a | neth-ad | neth-ur | 'hit' |
| | peth-a | peth-ad | peth-ur | 'bite' |

If the segmentation indicated by hyphens in 12 is assumed, then all the suffixed material is predictable from noun morphology and phonology (cf. chapter 2, 2.7.1ii. and 2.7.2).

13. i. The Non-Future ending is /-ur/ everywhere (except after nasals and non-sonorants), including after /th/.
- ii. The Future ending is /-ur/ everywhere (except after nasals and high front vowels), including after /th/.
- iii. The monosyllabic stems /math-/, /neth-/, /peth-/ in the Uninflected forms meet the structural description for Augmentation, which rule adds /-a/ after a non-continuant consonant.

It is evident that I have segmented the verbs in 12 so that the stems end in /-th-/, with the notable exception of polysyllabic stems in the UN form. But suppose that the /-th-/ is present even in these forms. Its absence is then predictable:

13. iv. Non-Apical Consonant Truncation deletes a final non-apical

consonant, e.g. /th/, in a disyllabic or longer form (chapter 2, rule 36) and so will convert underlying /warnawuth/ to /warnawu/, and so on.

An additional regularity, confined to verbs, has emerged: verb stems always end in the morpheme /-th-/ prior to the adding of tense formatives (or, as we'll see, negative formatives). This is a generalization in fact that holds for all Lardil verbs except three (see sections 3.5-3.7). All the forms in 12, then, are accountable in terms of independently motivated phonological and morphological rules, plus one:

14. Verb stems end in the marker /-th-/ before tense or negation is added.

The universal presence of /-th-/ accounts for the failure of Apocope to apply -- this rule must precede Non-Apical Consonant Truncation (cf. chapter 2).

The following sample derivations illustrate 13i-iv and 14.

| | | | |
|-----------------|--------------|-----------------|-----------------|
| 15. a (cf. 12a) | UNF | NFUT | FUT |
| underlying | /warnawu-th/ | /warnawu-th-ad/ | /warnawu-th-ur/ |
| Augmentation | --- | --- | --- |
| Apocope | --- | --- | --- |
| N.A.C.T. | ∅ | --- | --- |
| | [warnawu] | [warnawuthad] | [warnawuthur] |
| b (cf. 12b) | | | |
| | /ma-th/ | /ma-th-ad/ | /ma-th-ur/ |
| Augmentation | a | --- | --- |
| Apocope | --- | --- | --- |
| N.A.C.T. | --- | --- | --- |
| | [matha] | [mathad] | [mathur] |

3.2 Infinitives

In 16 below, I have set out some Infinitive forms. The Infinitive suffix is /-id/, and there is a recurrent segment /-j-/ where we would expect to see the verb marker /-th-/.

| | | |
|---------|--------------|-----------|
| 16. UNF | INFIN | |
| warnawu | warnawu-j-id | 'burn' |
| padki | padki-j-id | 'chop' |
| jidma | jidma-j-id | 'pick up' |
| ne-th-a | ne-j-id | 'hit' |

If /-j-/ is indeed the verb marker, then some rule is needed to convert the anterior /-th-/ to the non-anterior /-j-/, in the environment of 16. Such a rule has been independently motivated in chapter two, namely Laminalization. However, a slight revision is needed because the version of Laminalization in chapter two converts only the apical anterior /t/ to /j/ or to th depending on the backness of the following vowel:

| | | |
|---------|------------|------------|
| 17. NOM | AC | F |
| ngawit | ngawi j-in | ngawith-ur |

In its new formulation (18), this still happens, but now /th/ is converted to /j/ before a front vowel, and the rule applies vacuously before a back vowel, as in 19.

18. Laminalization (Revised)

| | | |
|--|------|--|
| C | | |
| $\begin{bmatrix} +\text{anterior} \\ -\text{labial} \\ -\text{cont} \end{bmatrix}$ | ---> | $\begin{bmatrix} +\text{distr} \\ \alpha \text{ ant} \end{bmatrix} \quad / \quad \underline{\quad} + \text{V} \quad [\alpha \text{ back}]$ |

| | | |
|---------------|---------------|--------------|
| 19. NF | F | INF |
| warnawu-th-ad | warnawu-th-ur | warnawu-j-id |

While the phonology of Infinitive verbs does not differ from phonologically matching nouns, the morphology does. The verb Infinitive ending is as in 20, while for nouns, the Infinitive ending is identical to several other categories, having the form /-kur, -wur, -ur/ (cf. chapter two).

| | |
|---------|----------------------|
| 20. INF | ---> /-id/ for verbs |
|---------|----------------------|

3.3 Admonitives

In the admonitive forms below, I have segmented the suffix as /-med/ and set off /-ny-/ where the verb marker, abstractly /-th-/,

should be.

| | |
|---------|----------------|
| 21. UN | ADM |
| warnawu | warnawu-ny-med |
| padki | padki-ny-med |
| jidma | jidma-ny-med |
| ne-th-a | ne-ny-med |

This analysis can be justified if there is some previously developed rule that will convert /-th-/ to /-ny-/ in the environment of 21.

It was shown in Chapter Two that any non-apical consonant is neutralized to [ny] before a labial nasal, e.g. /wik-a/ 'shade', /winy-mari/ 'carry to shade'. (Lamino-Alveolar Consonant Conversion, chapter two, 74) This rule applies correctly without modification in admonitives:

| | |
|----------|------------------|
| 22. | /warnawu-th-med/ |
| L.A.C.C. | ny |
| | [warnawunymed] |

All that is needed to cover 21, then, is the morphological spell out rule:

23. ADMON ---> /-med/ for verbs

Noun inflection in admonitives clause is identical to the infinitive and other categories, cf. 3.3.2 above.

3.3.4 Imperatives

The imperative inflection appears overtly only in a conjoined clause. I have suggested in Chapter Fourteen that the uninflected imperative found otherwise is derived by a rule deleting the imperative formative.

| | |
|---------------|-----------|
| 24. UN and IM | C/IM |
| a warnawu | warnawu-d |
| padki | padki-d |
| jidma | jidma-d |
| b ne-th-a | ne-ed |
| ma-th-a | ma-ad |

The imperatives in 24 reveal no overt verb marker /-th-/. If it is present abstractly, then /warnawu-th-d/ underlies phonetic /warnawu-d/. While the sequence /*th-d/ is definitely disallowed phonetically, there is no independently motivatable rule with the effect:

25. $th \rightarrow \emptyset / __ + d$

One solution is to set up 25 ad-hocly. This solution seems untenable. It would require, for a form like /ne-ed/(24b), the underlying form /ne-th-ed/, from which 25 will not delete the /th/. Any extension of 25 to make it applicable to the hypothetical underlying form /ne-th-ed/ would also apply to forms like /ma-th-ad/ 'get/Non-Future'. But the correct form is /mathad/, not /*maad/.

So the absence of the marker /th/ in the conjoined imperatives is not due to any general phonological phenomenon, it is simply a fact about these particular forms, and this must be stated directly in the underlying forms.

Therefore, I assume the marker /th/ to be absent underlyingly in conjoined imperatives, e.g. the underlying and phonetic forms for /ne-ed/ are identical.

The spell-out rule for this category is 26.

26. $C/IM \rightarrow V$

$$\begin{bmatrix} \alpha bk \\ \beta hi \end{bmatrix} \quad d \quad / \quad \begin{bmatrix} \alpha bk \\ \beta hi \end{bmatrix} __$$

When the verb root is two or more syllables, then the vowel of the suffix will delete automatically by the Vowel Deletion rule. The following derivations illustrate this.

27. Conjoined Imperatives

| underlying | /warnawu-ud/ | /ma-ad/ | /ne-ed/ |
|----------------|--------------|---------|---------|
| Vowel Deletion | \emptyset | - | - |
| | [warnawud] | [maad] | [need] |

3.4 Negatives

3.4.1 Uninflected Tense Negative

Consider the following forms for the uninflected tense:

| | | |
|--------------|----------|---------------|
| 28. (cf. 12) | Positive | Negative |
| a | warnawu | warnawu-j-ad |
| | kupari | kupari-j-ad |
| | kuwikuwi | kuwikuwi-j-ad |
| | padki | padki-j-ad |
| | jidma | jidma-j-ad |
| | terlte | terlte-j-ad |
| b | ma-th-a | ma-j-ad |
| | ne-th-a | ne-j-ad |
| | pe-th-a | pe-j-ad |

While the negatives are totally consistent among themselves in ending in /-j-ad/, there are difficulties in reconciling the negatives with the positive forms already studied, e.g. 12. The verb marker in the negative is evidently /-j-/ phonetically, and the negative suffix itself /-ad/. If we assume the usually verb marker /-th-/ to underly this /-j-/, there seems to be no way to convert it (via Laminalization) before a back vowel. And if we consider the verb marker to be /-j-/ underlyingly in the negative, we would expect it to convert to /-th-/ before the back vowel of /-ad/.

This sequence /ja/ appears to be anomalous, then, regardless of whether we take /-th-/ or /-j-/ to be present underlyingly. The real problem lies with the vowel /a/. Suppose we assume it to be underlyingly a front vowel, i.e. let's say the negative formative is /-er/ abstractly, (cf. the noun suffix /-wed/ (privative) 'without'). Then it is possible to set up /-th-/ as the underlying verb marker even here, for Laminalization will automatically convert it to /j/:

| | |
|----------------|-----------------|
| 29. | /warnawu-th-ed/ |
| Laminalization | j |
| | [*warnawujed] |

The output of this rule is close to the phonetic form desired, but has the wrong vowel in the last syllable. This is no problem, however, because there is a rule of Vowel Backing, independently motivated from noun paradigms, which will convert /e/ to /a/ after a laminal consonant.

In chapter 2, Vowel Backing was ultimately collapsed with Vowel Lowering:

30. Vowel Lowering and Backing (from chapter 2)

$$V \longrightarrow \left[\begin{array}{c} \text{-high} \\ \text{+back} \end{array} \right] / \begin{array}{c} C \\ \left[\begin{array}{c} \text{-ant} \\ \text{+distr} \end{array} \right] \end{array} \text{---}\#$$

The restriction that 30 apply only to a word-final vowel is essential to Vowel Lowering, cf. /payi-wur/, not /*paya-wur/. But Vowel Backing, which by itself can be restricted to /e/, need not be constrained to word-final position. The angled bracket convention used in 30 can be extended to handle this.²

31. Vowel Lowering and Backing (revised)

$$V \longrightarrow \left[\begin{array}{c} a \langle \text{-high} \rangle_a \\ b \langle \text{+back} \rangle_b \end{array} \right] / \left\langle \begin{array}{c} C \\ \left[\begin{array}{c} \text{-ant} \\ \text{+distr} \end{array} \right] \end{array} \right\rangle_b \text{---} a \langle \# \rangle_a$$

The convention is as follows. If the environment enclosed in the angled brackets with the subscript a, then the change in the angled brackets subscripted a applies; the brackets with b subscripts are linked in the same way, but the two pairs of brackets are independent of each other.

A further restriction must be imposed on 31 to block derivations like 32.³

32. /jempe/ 'Mother's father'

Rule 31 a

[*jampe]

The problem here is constraining the Vowel Backing portion of 31, i.e. that part subscripted b. The proper condition is statable in a way suggested by Kiparsky (197), who makes the distinction between derived forms (involving a word boundary, a morpheme boundary, or a segment affected by a previous rule, within the domain of the rule in question) non-derived forms (which don't meet any of the cited conditions). Kiparsky observes that a given rule either applies to all sequences meeting the structural description or only to derived forms.

Vowel Backing in Lardil must be restricted to derived forms. The

following derivations for forms of warnawu 'burn' illustrate the role of the rule of Vowel Lowering and Backing.

| | | | |
|-------------------------------|-----------------|-----------------|-----------------|
| 33. | Positive NF | Positive INF | Negative UN |
| | /warnawu-th-ad/ | /warnawu-th-id/ | /warnawu-th-ed/ |
| Laminalization | --- | j | j |
| Vowel Lowering and Backing | --- | --- | a |
| | [warnawuthad] | [warnawujid] | [warnawujad] |

We will see later that the negative formative is /-ed/ only after the marker /-th-/; otherwise, it is /-wed/ (matching exactly the privative for nouns).

3.4.2 Non-Future, Future, and Imperative

An entirely different negative formative appears in these forms (cf. 28, 12):

| | | | |
|-----|--------------|------------------|-------------|
| 34. | NF | F | IM |
| a | warnawu-ned | warnawu-nengkur | warnawu-ne |
| | kupari-ned | kupari-nengkur | kupari-ne |
| | kuwikuwi-ned | kuwikuwi-nengkur | kuwikuwi-ne |
| | padki-ned | padki-nengkur | padki-ne |
| | jidma-ned | jidma-nengkur | jidma-ne |
| | terlte-ned | terlte-nengkur | terlte-ne |
| b | ma-ned | ma-nengkur | ma-ne |
| | ne-ned | ne-nengkur | ne-ne |
| | pe-ned | pe-nengkur | pe-ne |

Within each column, the affix or affix sequence is constant for all verbs, both monosyllabic and longer. A part of this consistency lies in the phonetic absence of the verb marker /-th-/. Suppose it were present underlying, then we would have abstract representations like:

/ma-th-ned/ /ma-th-nengkur/ /ma-th-ne/ for phonetic:
/ma-ned/ /ma-nengkur/ /ma-ne/ (cf. 34b)

A rule to delete the /th/, as needed, already exists in Lardil. This is Medial Non-Apical Consonant Deletion, which deletes a non-apical before

a non-distributed segment, e.g. it converts underlying /wik-wed/ 'shade-Privative' to /wi-wed/. By the same rule, then, we have:

/ma-th-ned/

M.N.A.C.D.

∅

[maned]

It could be countered that the marker /-th-/ is simply absent underlyingly. However, in section 3.5, I show that the presence of the verb marker accounts for a phonological alternation presented there.

The affix sequences overtly present in 34 must now be accounted for. These are:

| | | | |
|-----|------|----------|-----|
| 34. | NF | F | IM' |
| | -ned | -nengkur | -ne |

The future alternant /-kur/ is readily discernible above, added to /-neng/, which I take to be the negative formative. This segmentation into /-neng-kur/ is quite reasonable, because the future alternant /-kur/ regularly is selected after a morpheme ending in a nasal. The imperative has no overt imperative morpheme, its affix sequence consisting phonetically only of /-ne/. This is derivable from the alternant /-neng/, by Non-Apical Consonant Truncation, the same rule that converts, e.g. /milwadkarung/ into phonetic /milwadkaru/ 'shovelnose shark' (cf. the accusative /milwadkarung-in/).

The non-future negative sequence /-ned/ cannot be accounted for by any rules developed so far. Assuming the negative to be /-neng/ abstractly, we predict the non-future alternant to be /-ad/, but there is no way to convert /*neng-ad/ to /-ned/, except by a completely ad hoc statement. And if we took the negative to be instead /-ne/ underlyingly, then /*-ne-ngad/ would be the anticipated affix sequence, again incorrect. It is clear that /-ned/ 'NG/NF' is irregular.

The derivations below summarize the conclusions I have reached about the paradigms of 34.

35. Negatives (cf. 34)

(the sequence for NG/NF, /-ned/, is irregular)

| | NF | F | IM' |
|----------------|-------------|------------------|--------------|
| abstract | /ma-th-ned/ | /ma-th-neng-kur/ | /ma-th-neng/ |
| M.N.A.C.D. | ∅ | ∅ | ∅ |
| Non-Ap. Trunc. | --- | --- | ∅ |
| | [maned] | [manengkur] | [mane] |

3.4.3 The /-ed/, /-neng/ alternation

Two negative formatives have been discovered in sections 3.4.1 and 3.4.2: /-ed/ and /-neng/, respectively. It is worthwhile considering the environment for the alternation. Consider the set of forms below:

| 36. | abstract | phonetic |
|------|----------------|-------------|
| a UN | ma-th-ed | ma-j-ad |
| b NF | ma-th-ned | ma-ned |
| F | ma-th-neng-kur | ma-neng-kur |
| c IM | ma-th-neng | ma-ne |

Between 36a and b, the choice between /-ed/ and /-neng/ is predictable, in that the latter, /-neng/, appears when there is an additional overt affix, but /-ed/ only when there is none. This explanation could be extended to the imperative (36c), when the proposal of chapter 14 is considered, i.e. that imperatives like those in 36c contain the imperative formative abstractly, but that it is later deleted. If this deletion rule is ordered after the selection of allomorphs of the negative, then the imperative will select /-neng/ like the future and non-future:

| | | |
|---------------------|----------------|-------|
| 37. morphemes: | ma-th- | NG-IM |
| underlying | /ma-th-neng-d/ | |
| Imperative Deletion | | ∅ |
| M.N.A.C.D. | ∅ | |
| Non-Ap. C. Trunc. | | ∅ |
| | [mane] | |

There is a weakness in this account, however. The uninflected non-future tense (UN), is also derived by a deletion rule according to

chapter 12. This deletion rule would have to precede allomorph selection for the negative, thusly:

| | | | | |
|----------------|------------|-------|-------------|-------|
| 38. morphemes | ma-th- | NG-NF | ma-th- | NG-NF |
| Tense Deletion | | ∅ | | --- |
| underlying | /ma-th-ed/ | | /ma-th-ned/ | |
| M.N.A.C.D. | | | ∅ | |
| Laminalization | j | | | |
| Vowel Backing | a | | | |
| | [majad] | | [maned] | |

Since both Imperative Deletion and Tense Deletion are syntactic rules (deleting formatives), and not phonological rules (deleting classes of sounds), accepting 37-38 means accepting the hypothesis that syntactic and phonological rules can be interspersed. This is tremendous power to add a grammar for such a small point in the morphology, and without further evidence, it seems preferable to conclude that the selection of /-ed/ or /-neng/ is not based on any generalization.

I conclude that the following statement is correct:

39. a Negative $\rightarrow \begin{cases} \text{/ed/ in UN} \\ \text{/neng/ elsewhere} \end{cases}$
- b (Irregular Sequence) Negative+ NF \rightarrow /-ned/
- c otherwise, tense allomorph selection is regular

3.5 /kangka/ 'say'

3.5.1 I now consider one of the verbs presented in 2 but not yet discussed. Selected forms are repeated in 39:

| | | | |
|---------|---------|----------|---------|
| 40. UN | NF | F | IM |
| kang-ka | kang-ad | kang-kur | kang-ka |

The verb root is clearly /kang-/. The morphological rules as already developed will spell out NF and F : as /-ad/ (regular after nasals) and /-kur/ (likewise), giving /kangad/ and /kangkur/, as in 40. In the uninflected non-future and uninflected imperative, the underlying form will be just the root, i.e. /kang-/ and so Augmentation will apply, adding a stop homorganic with the root final and the vowel /a/, hence:

/kang-ka/.

This verb cannot have the verb marker /-th-/ present underlyingly. If it were present, then the future allomorph selected would be /-ur/, and the Augment would be merely /-a/. Other false predictions would be made about the paradigm of /kangka/, in addition to these two more obvious ones, so I assume the absence of underlying /-th-/ with the verb root /kang-/ to be uncontroversial.

The derivation of the forms in 40 is presented in 41.

| | | | | |
|--------------|----------|-----------|------------|----------|
| 41. | UN | NF | F | IM |
| underlying | /kang-/ | /kang-ad/ | /kang-kur/ | /kang-/ |
| Augmentation | ka | --- | --- | ka |
| | [kangka] | [kangad] | [kangkur] | [kangka] |

3.5.2 The (marked) imperative of /kangka/ is /kang-in/ (2). The ending /-in/ is found only with this verb; otherwise /-(V) d/ is the imperative formative.

| | | |
|--------------------|---|--|
| 42. Imperative --> | { | /-in/ after /kang-/ |
| | | /-Vd/ after other monosyllabics, where V is a copy |
| | | of the preceding vowel |
| | | /-d/ otherwise |

3.5.3 The admonitive of /kangka/ is /kany-med/. The affix is the regular one, and the shape of the stem is predicted by Lamino-Alveolar Consonant Conversion:

| | |
|----------------|------------|
| 43. underlying | /kang-med/ |
| L.A.C.C. | ny |
| | [kanymed] |

3.5.4 The negatives for /kangka/ are as follows:

| | | |
|--------|--------|-------------|
| 44. UN | NF | F |
| ka-wed | ka-ned | ka-neng-kur |

The non-future and future negatives are identical to those of the previous verbs studied, with the notable exception that here, the negative formative begins in the retroflex /rn/, instead of /n/. Contrast

/ka-rneng-kur/ with /ma-neng-kur/. An additional way in which /kang-/ differs from the verbs previously studied is that the verb marker /-th-/ never appears with /kang-/, even underlyingly. This second observation can account for the first.

There is a direct correlation between the underlying presence of /-th-/ and the phonetic manifestation of the negative as /-neng/. This can be exploited to account for the alternation between /-neng/ and /-rneng/, as follows. Assume this formative to be uniformly /-rneng/ every time, i.e. with the retroflex nasal. Underlying representations for the future negative forms of /padki/ 'chop' (a representative verb in the /-th-/) and /kangka/ are then as in 45. The rule of anterior assimilation will convert the non-anterior (retroflex) /rn/ to the anterior /n/, after another anterior segment, such as /th/. Then, as we have seen previously, this /th/ will delete by Medial Non-Apical Consonant Deletion, as will the final /ng/ of the root /kang-/.

| | | |
|-----------------------|----------------------|------------------|
| 45. underlying | /padki-th-rneng-kur/ | /kang-rneng-kur/ |
| Anterior Assimilation | n | --- |
| M.N.A.C.D. | ∅ | ∅ |
| | [padkinengkur] | [karnengkur] |

The **uninflected** non-future (UN), however, does not take the same negative alternant as verbs in /-th-/. The phonetic /ka-wed/ obviously contains the suffix /-wed/; thus underlying /kang-wed/ is converted to the phonetic form by Medial Non-Apical Deletion.

The alternant /-ed/, taken to underly phonetic /-ad/ in forms like /majad/, cannot be derived from /-wed/ by phonological rule. Given the hypothesized underlying form consisting of root plus /-th-/ plus /-wed/, e.g. /ma-th-wed/, the rule of Medial Non-Apical Consonant Deletion will delete the /th/, resulting in /*ma-wed/, which cannot possibly be converted to the correct /majad/. The spell-out rule for the negative therefore has to be revised from 39a, as follows:

46. Negative → { /-wed/ in UN for /kangka/
 /-ed/ in UN for other verbs
 /-rneng/ elsewhere

(See also 39b,c.)

3.6 /waa/ 'go'

3.6.1 Consider the following forms:

| | | | | |
|-----|-----|----------|-----------|-----|
| 47. | UN | NF | F | IM |
| | waa | waang-ad | waang-kur | waa |

If the verb root is abstractly /waang-/, then all the phonetic forms in 47 are predicted on the basis of perfectly general rules. The non-future and future take the expected affixes, /-ad/ and /-kur/. The uninflected non-future and uninflected imperative are derived by Non-Apical Consonant Truncation: thus /waang/ is converted to /waa/.

3.6.2

The infinitive form of the verb /waa/ is /waang-kud/. The suffix here, /-kud/, is different from the infinitive ending of verbs in /-th-/, which is /-id/. Apart from this new allomorph, nothing is out of line in this form.

48. Infinitive $\rightarrow \begin{cases} /-kud/ & \text{after the underlying representation of} \\ & /waang-/ \\ /-id/ & \text{after } /-th-/ \end{cases}$

3.6.3

The admonitive of the verb /waa/ is not entirely expected. Adding to /waang-/ the affix /-med/ and applying Lamino Alveolar Consonant Conversion (as usual), we get /*waany-med/, where the correct form is /wanginy-med/. The alternation to be accounted for is between the sequence /...angi.../ and /...aa.../:

cf. /wanginy-med/ (ADM)
and /waa ng-kur/ (F)

This is exactly parallel to an alternation found in nouns, where an anticipated sequence /Vngi/ appears as a long vowel /VV/, when before a [-distributed] consonant. In nouns, the expected /mang-in-(t)angan/ appears phonetically as /maa-n-(t)angan/; in the verb under question, expected /wanging-kur/ appears as /waang-kur/. In Chapter Two, I have suggested that the transformational rule of Vowel Lengthening (49) accounts for this whole range of facts. The derivations in question are

set out in 50: the pertinent things to observe, with respect to the verb /waa/, are that (i) a uniform stem /wanging-/ exists underlyingly; (ii) the phonetic long vowel /aa/ is derived by an independently needed rule; and (iii) as with /kangka/, there is never any reason to suppose that the verb marker /-th-/ is present underlyingly with /waa/.

49. Vowel Lengthening

| | | | | | |
|------------------------|----|---|---|---|---|
| X - V - ng - i - C - X | | | | | |
| [-distr] | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | VV | ∅ | ∅ | 5 | 6 |

⇒

| | | | |
|-------------------|-----------|---------------|---------------|
| 50. | UN | F | ADM |
| | /wanging/ | /wanging-kur/ | /wanging-med/ |
| L.A.C.C. | --- | --- | ny |
| Vowel Lengthening | aa∅∅ | aa∅∅ | --- |
| N. Ap. C. Trunc. | ∅ | --- | --- |
| | [waa] | [waangkur] | [wanginyed] |

3.6.4

The negative forms of /waa/ need to be examined too. Three notable things happen here: (i) the Vowel Lengthening rule does not apply, and (ii) in the uninflected non-future, the verb marker /-th-/ manifests itself -- as /j/; and (iii) the negative alternant contains the non-retroflex /n/.

51. Negatives

| | | |
|------------|-----------|----------------|
| UN | NF | F |
| wangi-j-ad | wangi-red | wangi-neng-kur |

All these observations are accounted for, if it is assumed that the negative of /waa/ (unlike the positive) takes the verb marker /-th-/. The /-th-/ (i) will block Vowel Lengthening, because it causes the nasal /ng/ to delete; (ii) will appear phonetically as /j/ before the UN negative formative /-ed/ (phonetically /-ad/); (iii) will cause the initial retroflex of the negative /-rneng/ to convert to /n/, by Anterior Assimilation. The marker /-th-/ does not appear phonetically in the NF

and F forms, due to deletion by Medial Non-Apical Consonant Deletion.

One feature of this analysis is that it requires Medial Non-Apical Consonant Deletion to apply iteratively: See Chapter Nine.

| | | | |
|----------------|-----------------|-------------------|------------------------|
| 52. | UN | NF | F |
| | /wanging-th-ed/ | /wanging-th-rned/ | /wanging-th-rneng-kur/ |
| Ant. Assim. | --- | n | n |
| V. Lengthening | --- | --- | --- |
| M.N.A.C.D. | ∅ | ∅ | ∅ |
| Ditto | --- | ∅ | ∅ |
| Laminalization | j | | |
| V. Backing | | a | |
| | [wangijad] | [wangined] | [wanginengkur] |

3.7 /rikur/ 'cry'

3.7.1 The stem of this verb is /rik-/, and in the positive forms, the marker /-th-/ is absent phonetically, cf. 53. It must be absent underlyingly, too, because if it were present, then the /k/ of the stem would delete.

| | | | | |
|-----|--------|--------|--------|----------|
| 53. | UN | NF | F | ADM |
| | rik-ur | rik-ad | rik-ur | riny-med |

While the non-future, future and admonitive are all regularly formed, assuming a stem /rik-/, the uninflected non-future is not. We expect /*rika/, derived by Augmentation from /rik-/.

There are three possible sources for this irregularity. Firstly, the uninflected Non-Future Tense (UN) is identical to the future, and it could be supposed to be an instance of idiosyncratic syncretism. This is highly unlikely, in my opinion, because the UN is semantically non-future, and in fact, I have claimed in the syntax chapters that a sentence with a UN verb is derived by deletion of the non-future tense (/ad/).

The second possibility is that the /-ur/ is simply an irregular affix for the uninflected Non-Future Tense. But, again, if the verb in question reflects Non-Future Tense Deletion, then no affix should be present.

The third possibility, suggested by Kenneth Hale, is plausible: the form /rik-ur/ is actually the propriative form of the noun /rik-a/ 'cry'. This usage is parallel to, e.g. /payi-wur/ (anger/Propriative) 'be angry', literally 'have anger'.

3.7.2

The negatives of the verb /rik-/ have two alternative forms in each tense/mood category:

| | | | | |
|-----|---------|---------|--------------|--------|
| 54. | UN | NF | F | IM |
| a | ri-wed | ri-rner | ri-rneng-kur | ri-rne |
| b | ri-j-ad | ri-ned | ri-neng-kur | ri-ne |

One set of these, 54a, is formed by adding the negatives /-wed/ or /-rneng/, as the case may be, directly to the stem /rik-/. The final consonant of the root will delete:

| | | | | |
|--------------------------|-----------|------------|-----------------|-------------|
| 55. (cf. 54a) | UN | NF | F | IM |
| | /rik-wed/ | /rik-rned/ | /rik-rneng-kur/ | /rik-rneng/ |
| Med. Non-Ap. Deletion | ∅ | ∅ | ∅ | ∅ |
| Non-Ap. Cons. Truncation | | | | ∅ |
| | [riwed] | [rirned] | [rirnengkur] | [rirne] |

The other set, 54b, shows evidence of the verb marker in two respects: the segment /j/ in the UN is from underlying /th/, and the initial retroflex /rn/ of the negative /-rneng/ appears as /n/, due to assimilation to the anterior segment /th/. As in other negatives containing the verb marker, that segment deletes by Medial Non-Apical Deletion:

| | | | | |
|----------------|-------------|---------------|--------------------|----------------|
| 56. (cf. 54b) | UN | NF | F | IM |
| | /rik-th-ed/ | /rik-th-rned/ | /rik-th-rneng-kur/ | /rik-th-rneng/ |
| Ant. Assim. | --- | n | n | n |
| M.N.A.C.D. | ∅ | ∅ | ∅ | ∅ |
| M.N.A.D. | | ∅ | ∅ | ∅ |
| Laminalization | j | --- | --- | --- |
| V. Backing | | a | --- | --- |
| N.A.C.T. | --- | --- | --- | |
| | [rijad] | [rined] | [rinengkur] | [rine] |

3.7.3 Summary of 3.5-7

The superficial irregularity of the three verbs /kangka/ 'speak', /waa/ 'go', and /rikur/ 'cry' has been drastically reduced. The three verbs are distinctive in that their underlying roots end in consonants. Furthermore, /kangka/ never takes the usual verb marker /-th-/; waa takes it only in the Admonitive and in the Negatives; and /rikur/ takes it optionally, in the Negatives only. When the marker /-th-/ is absent, then the Negative (of the uninflected Non-Future) is /-wed/, not /-ed/ as found otherwise.

The positive uninflected Non-Future /rikur/ is irregular, as /*rika/ is expected.

3.8 Derivational suffixes

A few derivational forms of verbs employing overt affixes exist.

3.8.1 Nominalizations (Reduced Relative Clauses)

Agentive and instrumental nominalizations may be formed from verbs by adding /-(V)n/ or /-in/ to the root, where V is a copy of the preceding vowel. A direct object noun, if present, is incorporated. Semantically, these nominalizations correspond to clauses stating habitual or customary action:

57. a Niya ratha karn^hjinin.
(he spear wallaby/AC)
'He spears wallabies.'

- b Niya karn^hjin-ra-an tangka
(man)
'He is a wallaby spearing man, a wallaby-spearer.'

58. a Niya kupari wangalkin.
(he make boomerang/AC)
'He makes boomerangs.'

- b Niya wangal-kupari-n tangka.
'He is a boomerang-maker.'

59. a Niya waa.
 (he go)
 'He goes, walks.'
- b Niya waangin.
 'He is a goer.'
60. a Niya kangka.
 (he talk)
 'He talks, speaks.'
- b Niya kang-in.
 'He is a speaker, talker.'

The distribution of the agentive nominalizer alternants is:

/-Vn/ (vowel length plus /n/ after monosyllabic roots

/-in/ after a disyllabic or longer root ending in a
 consonant

/-n/ after a disyllabic or longer root ending in a
 vowel

The verb marker /-th-/ is clearly absent, both phonetically and underlyingly, in these nominalizations. The form /kang-in/ 'speaker' does not undergo Vowel Lengthening, for clearly [*kaan] must be prevented.

The meaning of a nominalization as in 57-60 is not exactly that of the corresponding habitual sentence, as the following glosses will indicate. /Wangal-kupari-n/ 'boomerang maker' has especially the connotation 'a good boomerang maker'; /karnjin-ra-an/ 'spearer of wallabies' is generally used to mean 'a person good at spearing wallabies'. Perhaps, in a society where there is relatively little 'job' specialization, and all men are hunters, boomerang makers, etc., it is natural for an agentive nominalization to designate an especially skilled or lucky person. The cultural explanation may not hold force, as something similar occurs in English: if we say 'he is a real politician' we are not necessarily referring to somebody whose profession is politics, but rather somebody skilled at those activities which are deemed characteristic of politicians in our society. The phenomenon is somewhat general, cf. the following sentences (pointed out to me by John Robert Ross):

Kennedy was a president.

John Wayne is a man.

The Lardil and English sentences are, in fact, uninformative if the predication is taken literally. Their typical use is to indicate excellence.

There also exist negative agentive nominalizations. There are identical to the uninflected non-future negative, including the presence of /-th-/, as [j]:

61. a Ngawa pe-j-ad tangan.
(dog bite/NG man/AC)
'The dog doesn't bite men.'
- b Ngawa tangka-pe-j-ad.
'The dog is a non-biter of men.', 'The dog (is an animal that) doesn't bite men.'

These nominalizations can be used as attributives (57b, 58b) and as predicates (59b, 60b, 61b).

What appears to be the same suffix, /-n/, if added to stative verbs, forms abstract nouns.

62. a kapudji 'be hungry'
kapudji-n 'hunger'
- b tadathala 'be sweating'
tadathala-n 'sweat'

Instrumental nominalizations are formed by adding the Passive suffix (/ -V/, / -yi/) plus the nominalizing one to the verb root. These can be used attributively or predicatively.

63. a wanal-kupari-i-n thungal
(thing)
'a thing (good) for making boomerangs with'
- b karnjja -ra-yi-n maarn
(spear)
'a spear (good) for spearing wallabies with'

An **agentive** nominalization can be predicated of (or modify) any nominal that can function as subject of the corresponding (active) verb. However, an **instrumental** nominalization, although it contains the passive morpheme, is not predicatable of those nominals that function in general as passive subjects, but only of instrumentals.

3.8.2 Inchoative Verbs

Inchoative verbs are formed from stative verbs and adjectives. Roots that end in a vowel take the inchoative /-a-th-/ after a and /-ya-th-/ after other vowels. The marker /-th-/ deletes if there is no following inflection, by Non-Apical Consonant Truncation.

64. turte 'loose'
turti-ya 'become loose, soften, weaken'
65. a kadwa 'be strong' kadwa-a 'become strong'
b mutha 'big' mutha-a 'become big'
- After the lateral /l/, the inchoative has the form /-e-th-/:
66. jirtangkur 'heavy' jirtangkul-e 'become heavy'
- After other consonants, the inchoative ending is /-a-th-/:
67. payiwur 'angry' payiwur-a 'become angry'

3.8.3 Causatives

A **causative** is formed by adding /-pennge-/ plus marker /-th-/ to a verb root. The usual phonological rules apply, so that the underlying verb form /rik-pennge-th-/ is converted by Lamino Alveolar Consonant Conversion to /rij-pennge-th-/:
68. Ngajarta rijpennge kun niween?
(who cry/CAUS EV him/AC)
'Who made him cry?'

3.9 Summary

3.9.1 Overview

In general, verb roots or roots plus the Passive/Reflexive or

Reciprocal, take the marker /-th-/ as a suffix prior to the addition of any other affixes. (But this marker is absent before the (overt) imperative suffix.) However, none of the verbs /kangka/ 'say', /waa/ 'go', /rikur/ 'cry', take the marker in their positive paradigms; while in the negative, /waa/ always takes /-th-/, /rikur/ does optionally, and /kangka/ never.

It is perhaps significant that at least two of these verbs are related to nouns, cf. /kangka/ 'speech, language' and /rika/ 'plaint'. The fluctuation described in the previous paragraph may reflect a language change in progress, as these roots become more assimilated to the verb pattern. Perhaps related to this is the use of the noun form /rik-ur/ 'cry/Propriative' where an uninflected non-future verb /*rik-a/ is expected.

Monosyllabic stems, whether they take /-th-/ or not, undergo Augmentation if no further affixes are added: /ma-th-a/, /kang-ka/. These further affixes fall into two categories: Negative and Tense/Mood (Non-Future, Future, Infinitive, Admonitive, Imperative). The negative suffix has three alternants, which are morphologically determined: /-wed/ in the uninflected non-future; but /-ed/ in that tense after the verb marker /-th-/; and /-rneng/ elsewhere. (The combination Negative plus (overt) Non-Future is irregularly formed as /-rned/, not the expected /*rneng-ad/.) The alternant /-wer/ is identical to the Privative of nouns. The Non-Future and Future suffixes have exactly the forms predicted by the morphological spell-out rules developed for nouns. Verbs have the distinctive Infinitive /-kud/ (after underlying /wanging-/ 'go' and /kang-/ 'speak'), /-id/ (elsewhere); Imperative /-in/ (after /kang-/), /-Vd/ (after other monosyllables), /-d/ (otherwise); and Admonitive /-med/, while for nouns, the Infinitive and Admonitive are morphologically identical to the Future (and Propriative). Nouns take no distinctive Imperative ending.

Affix sequence is:

| | | | |
|------|-----|-------------------|-----------------------------|
| stem | + { | Passive/Reflexive | + Marker + Negative + Tense |
| | { | Reciprocal | Mood |

3.9 Footnotes

1. The Passive/Reflexive Imperative is typically used with verbs like /jid^hma/ 'pick up', /jid^hnaa/ 'get up': /jid^hmaa (IM) 'get up!'.
2. This formulation of the rule was suggested by John Robert Ross.
3. This problem with the rule was pointed out to me by Kenneth Hale.

CHAPTER FOUR

PERSONAL PRONOUNS

- 4.1 Categories
- 4.2 Paradigms
- 4.3 Singular pronouns
- 4.4 Person, number, and harmony in the non-singular pronouns
- 4.5 Augmentation
- 4.6 Disharmonic pronouns
- 4.7 Harmonic pronouns
- 4.8 Summary of pronoun stems
- 4.9 Footnotes

The purpose of this chapter and the next one is to show the morphological analysis of personal and demonstrative pronouns, and how independently motivated phonological rules apply to these forms. A few morphological and phonological rules apply only to pronouns, however.

4.1 Categories

In addition to the range of case and tense categories which are assigned to nominals, a personal pronoun will distinguish certain categories that are otherwise not marked overtly:

- i number - singular, dual, plural
- ii person - first, second, third
- iii inclusive/exclusive first person
- iv generation harmony - harmonic, disharmonic

The last mentioned category is a principal of kinship that is rarely marked as a grammatical category in languages of the world. When a non-singular noun phrase refers to persons who are in the same generation or in generations separated by an odd number of intervening generations, then the pronoun is in the harmonic form. On the other hand, if (at least two of) the individuals referred to are in adjacent generations, or in generations separated by an even number of intervening generations, then the pronoun is in the disharmonic form.

The syntax of pronouns is discussed in Chapter Fourteen.

4.2 Paradigms

The paradigms below (1) set out the case and tense forms for each permitted person, number, inclusion, and harmonic combination. The significance of the left-hand column is as follows: the number 1 refers to the speaker; 2 to an addressee; and 3 to any other person. Hence, 10 is first person singular; 20 second person singular, and 30 third person singular. The dual forms may refer to the speaker and the addressee, indicated by the combination 12; or to the speaker and another person not the addressee, indicated by 13 -- these two categories are traditionally referred to as the inclusive and exclusive forms, respectively. Other duals are indicated by a double number indicating the person. The representations for the plurals follow the same principles as the preceding, e.g. 122 is the first person plural inclusive; 133 is the corresponding exclusive form. The letters h and d refer to harmonic and disharmonic, respectively.

1.

| | NOMINATIVE | ACCUSATIVE | GENITIVE | FUTURE | NON-FUTURE |
|----|------------|------------|----------|--------------|------------|
| | singular | | | | |
| 10 | ngata | ngithaa-n | ngithun | ngithantha-r | ngithun-ad |
| 20 | nying-ki | ngimpee-r | ngimpen | ngimpentha-r | ngimpen-ad |
| 30 | ni-ya | niwee-n | ni-wen | ni-wentha-r | ni-wen-ad |

| non-singular | | DISHARMONIC | | | |
|--------------|------------|--------------|----------------|-----------------|----------------|
| | NOMINATIVE | ACCUSATIVE | GENITIVE | FUTURE | NON-FUTURE |
| 13d | nyaa-n-ki | nyaa-n | nyaang-an | nyaang-kur | nyaang-ad |
| 12d | ngaku-n-i | ngaku-n-ii-n | ngaku-ning-an | ngakun-ing-kur | ngaku-ning-ad |
| 22d | nyii-n-ki | nyii-n | nyiing-an | nyiing-kur | nyiing-ad |
| 33d | nii-n-ki | niing-n | niing-an | niing-kur | niing-ad |
| 133d | nya-lmu | nya-lmuu-n | nya-lmung-an | nya-lmung-kur | nya-lmung-ad |
| 122d | ngaku-lmu | ngaku-lmuu-n | ngaku-lmung-an | ngaku-lmung-kur | ngaku-lmung-ad |
| 222d | ki-lmu | ki-lmuu-n | ki-lmung-an | ki-lmung-kur | ki-lmung-ad |
| 333d | pi-lmu | pi-lmuu-n | pi-lmung-an | pi-lmung-kur | pi-lmung-ad |

| HARMONIC | | | | | |
|----------|-----------|---------------|--------------|-------------------|-----------------|
| 13h | nya-d-i | nya-d-wee-n | nya-d-we-n | nya-d-we-ntha-r | nya-d-we-n-ad |
| 12h | ngaku-d-i | ngaku-d-wee-n | ngaku-d-we-n | ngaku-d-we-ntha-r | ngaku-d-we-n-ad |
| 22h | ki-d-i | ki-d-wee-n | ki-d-we-n | ki-d-we-ntha-r | ki-d-we-n-ad |
| 33h | pi-d-i | pi-d-wee-n | pi-d-we-n | pi-d-we-n | pi-d-we-n-ad |
| 133h | nya-l-i | nya-l-wee-n | nya-l-we-n | nya-l-we-ntha-r | nya-l-we-n-ad |
| 122h | ngaku-l-i | ngaku-l-wee-n | ngaku-l-we-n | ngaku-l-we-ntha-r | ngaku-l-we-n-ad |
| 222h | ki-l-i | ki-l-wee-n | ki-l-we-n | ki-l-we-ntha-r | ki-l-we-n-ad |
| 333h | pi-l-i | pi-l-wee-n | pi-l-we-n | pi-l-we-ntha-r | pi-l-we-n-ad |

4.3 Singular pronouns

4.3.1 First person

The first person singular is irregular in that it has three different root alternants, which phonetically are /ngat-/ in the nominative, /ngithaa-/ in the accusative, and /ngithun/ for the genitive. The full nominative form /ngat-a/ is derived by the regular rule of Augmentation, cf. the noun /yak-a/ 'fish' and the verb /pe-th-a/ 'bite'. If we assume phonetic /ngithaa-/ to be from underlying /ngithang-/, then the accusative form can be accounted for by the independently needed rule of Vowel Lengthening, which will convert underlying /ngithang-in/ to /ngithaa-n/. Anticipating later results, I segment the genitive into root /ngithu-/ and genitive case /-n/. (It turns out that the latter is the regular genitive ending for singular and harmonic pronouns.)

The irregularity of the first person singular pronoun is actually of some significance, because we can see clearly that the future is formed by adding an affix to the accusative, while the non-future consists of the genitive plus an affix (2). In the segmentation of the future and non-future I have assumed the tense affixes to be the regular ones, i.e. /-r/ (from /-ur/ by Vowel Deletion) after a vowel such as /a/, and /-ad/ after a nasal, respectively.

- | | | | |
|------|--------|---------------|-------------|
| 2. a | ngat-a | ngithaa-n | ngithu-n |
| b | | ngitha-ntha-r | ngithu-n-ad |

Assuming the correctness of this source for the tense forms, it is necessary for me to make certain statements:

3. The Accusative is underlyingly /-intha/, i.e. not /-in/.
4. a The stem for Future of certain Pronouns, including the singulars, is the Accusative.
- b The stem for Non-Future of certain Pronouns, including the singulars, is the Genitive.
- c The rule of Vowel Lengthening applies in the Future form, to the extent that the sequence ng plus i is deleted, but the preceding vowel remains short: not /*ngithaantha/ but /ngithantha/.

To handle observation 4c, a revision of the Vowel Lengthening rule is necessary.

5. Vowel Lengthening (revised)¹

| V | | | | C | | | |
|---|-----------|---|---|----|---|---|------------------------|
| 1 | [-stress] | 1 | - | ng | 1 | - | [+nasal] - 1 [+cons] 1 |
| | 1 | | | 2 | | | 3 4 |
| | 1 | a | 1 | ∅ | | | 3 4 |
| | aa | | | | | | |

The accusative /-intha/ will be reduced to /-in/ word finally, by Apocope and Cluster Reduction. These rules will be blocked just in case another suffix follows the accusative, and this is something that happens in a pronoun like /ngitha-ntha-r/, but never in a noun or verb. The derivations in 6 show the results of these conclusions.

| 6. | AC | F |
|-------------------|------------------|---------------------|
| underlying | /ngithang-intha/ | /ngithang-intha-ur/ |
| Vowel Deletion | | ∅ |
| Vowel Lengthening | aa∅ ∅ | a ∅ ∅ |
| Apocope | ∅ | --- |
| Cluster Reduction | ∅ | --- |
| | [ngithaan] | [ngithanthar] |

The rules 3,4,5 are further justified by a study of the other pronouns. It will be seen that they are of general application.

4.3.2 Second person

The second person singular obviously has two root alternants, one in the nominative, and the other elsewhere. The nominative can be assumed to have a monosyllabic root /nying-/; but the Augment syllable is irregular, /-ki/ instead of the regular /-ka/. (This segmentation is justified by the appearance of the root /nying-/ in the dual disharmonic, cf. 4.4, 4.6.2.) The other root must be /ngimpeng-/; this will account for the long vowel in the accusative, as the following derivation shows. The Future is also derived according to the rule established above (4a).

| | | |
|-------------------|------------------|---------------------|
| 7. | ACC | F |
| underlying | /ngimpeng-intha/ | /ngimpeng-intha-ur/ |
| Vowel Deletion | --- | ∅ |
| Vowel Lengthening | ee∅ ∅ | e ∅ ∅ |
| Apocope | · ∅ | |
| Cluster Reduction | ∅ | |
| | [ngimpeen] | [ngimpenthar] |

The genitive form is derivable with root /ngimpeng-/, provided we assume the genitive alternant to be /-n/ instead of the /-ngan/ which is generally found after nasals. The following derivations contrast the results of having these two alternants underlyingly. In 9, I present a modified spell-out rule for the genitive.

8. Derivations for the genitive

| | | |
|-------------------|----------------------------|--------------------------|
| | a. Correct Underlying Form | b. Wrong Underlying Form |
| | /ngimpeng-n/ | /ngimpeng-ngan/ |
| Cluster Reduction | --- | ∅ |
| M.N.A.D. | ∅ | --- |
| | [ngimpen] | [*ngimpengan] |

Vowel Lengthening could not apply in 8b, because the vowel must be followed by /ng/ plus /i/ plus non-distributed nasal. Even if the rule could apply, incorrect [*ngimpeen] (=the accusative, actually) would result. Assuming underlying /-n/ correctly accounts for the genitive of this pronoun.

9. Genitive \rightarrow {
- /-n/ for a subset of the pronouns (to be specified later)
 - /-ngan/ otherwise, after nasals
 - /-kan/ otherwise, after non-nasals

The non-future is based on the genitive, as predicted:

| | |
|------------|-----------------|
| 10. | /ngimpeng-n-ad/ |
| M.N.A.C.D. | ∅ |
| | [ngimpenad] |

4.3.3 Third person singular

The third person singular pronoun has the root /ni-/; in all inflected forms, the suffix /-weng/ is added before the case suffix. Otherwise, this pronoun is formed according to rules already motivated, as the derivations below confirm. This is one of the pronouns which takes the genitive /-n/, not /-ngan/.

| | | | |
|-------|-----------------|----------|--------------------|
| 11. a | NOMINATIVE | /ni/ | |
| | Augmentation | a | |
| | Glide Insertion | y | |
| | | [niya] | |
| b | ACCUSATIVE | | FUTURE |
| | /ni-weng-intha/ | | /ni-weng-intha-ur/ |
| | V. Deletion | | ∅ |
| | V. Lengthening | ee∅ ∅ | e ∅ ∅ |
| | Apocope | ∅ | --- |
| | Cluster Red. | ∅ | --- |
| | V. Shortening | | |
| | | [niween] | [niwenthar] |
| c | GENITIVE | | NON-FUTURE |
| | /ni-weng-n/ | | /ni-weng-n-ad/ |
| | M.N.A.C.D. | ∅ | ∅ |
| | | [niwen] | [niwenad] |

4.4 Person, number, and harmony in the non-singular pronouns

Below, I have re-assembled the nominative forms in such a way as to bring out certain regularities in person, number, and harmony marking of these non-singular forms.

| 12. | FIRST PERSON EXCLUSIVE | FIRST PERSON INCLUSIVE | SECOND PERSON | THIRD PERSON |
|-------------|---------------------------|---------------------------|------------------|-----------------|
| Disharmonic | | | | |
| dual | nya-an-ki | ngaku-ni | nyii-n-ki | ni-in-ki |
| plural | nya-lmu | ngaku-lmu | ki-lmu | pi-lmu |
| Harmonic | | | | |
| dual | nya-d-i | ngaku-d-i | ki-d-i | pi-d-i |
| plural | nya-l-i | ngaku-l-i | ki-l-i | pi-l-i |

The pronoun roots mark person and number and are constant in all except non-first person dual disharmonics:

13. nya- first person exclusive non-singular
 ngaku- first person inclusive non-singular
 ki- second person non-singular
 pi- third person non-singular

The distinctive dual disharmonic roots are just the singular roots, i.e. /nying-/ second person and /ni-/ third person (cf. 1.3.2, 1.3.3, respectively). I return to these below.

Generation harmony and number are indicated by a suffix attached to the root. The pattern is constant, except, once again, for the dual disharmonics:

14. a -lmu disharmonic plural
 b -Vn, -ni, -n disharmonic dual
 c -d harmonic dual
 d -l harmonic plural

The phonetic variation in the disharmonic dual marker can be accounted for by assuming two underlying alternants /-ning/ with first person exclusive and /-ngin/ otherwise. The derivations below in 15 illustrate this. I ignore for now the source of the endings /-ki/, /i/ -- these are augmentative syllables treated in 4.5 below.

15. a DISHARMONIC DUAL /-ngin/

| | | | |
|-------------------|---------------|-----------------|--------------|
| | /nya-ngin-ki/ | /nying-ngin-ki/ | /ni-ngin-ki/ |
| Degemination | | ∅ | |
| Vowel Lengthening | aa∅ ∅ | ii∅ ∅ | ii∅ ∅ |
| | [ɲyaanki] | [nyĩĩnki] | [niĩĩnki] |

b DISHARMONIC DUAL /-ning/

| | |
|----------|--------------|
| | /ngaku-ning/ |
| N.A.C.T. | ∅ |
| | [ngakuni] |

Thus 16 must replace 14b:

16. The disharmonic dual is /-ning/ with first person exclusive; otherwise, it is /-ngin/.

As this essay proceeds, it will emerge that the underlying form of the disharmonic plural differs from the phonetic form as shown in 14a and the harmonic affixes have other forms as well.

4.5 Augmentation

The irregular augment /-ki/ found in the second person singular /nying-ki/ recurs with some non-singulars as well, alternating with /-i/. The distribution of these two is as follows:

17. /-ki/ after nasals
/-i/ after non-nasals

These affixes contribute no meaning to the pronouns, nor are they accountable by any rule of agreement, or the like. They are simply phonetic augments. However, both in form and in distribution they differ from the augment introduced in nouns, verbs, and non-second person singular pronouns. The regular augment is attached only to a monosyllabic stem, and consists of /-ta/ after an anterior apical non-continuant such as /n/, /-ka/ after a velar non-continuant such as /ng/, and /-a/ after a continuant such as /d/. But the augments in 17 are attached to both monosyllables and disyllables, with /-ki/ following /n/ and /-i/ after other consonants. The following tabulation brings out these contrasts.

18. NOUNS AND VERBS

PRONOUNS

| | | |
|---|----------------------|----------|
| a | jul-ta | kil-i |
| | thungal (no augment) | ngakul-i |
| | yud-a | kid-i |
| | ngawid (no augment) | ngakud-i |
| b | wun-ta | |
| | yadaman (no augment) | nyaan-ki |
| | maarn (no augment) | |
| | kang-ka | nying-ki |

A separate Augmentation rule to introduce /(k)i/ is clearly needed. Only non-singular pronouns and the second person singular are marked as undergoing this rule.

19. Pronoun Augmentation²

Q ---

Ø -----

/-ki/ after nasals

/-i/ after non-nasals

Evidently, the augment /-ki/ is attached to a stem ending in a velar nasal only in the instance of /nying-ki/. It does not attach to pronouns ending in an eng: /-ning/, viz. /ngaku-ni/ from underlying /ngaku-ning/, nor /-lmung/, the source of /-lmu/ (cf. 1.6.2), e.g. /ngakulmu/ from /ngakulmung/; etc. . If this augment were attached to such pronouns, we would have forms like:

/*ngaku-ning-ki/ for /ngaku-ni/

/*ngaku-lmung-ki/ for /ngaku-lmu/, etc.

The forms on the left above cannot be converted to those on the right by truncation, because the augment /-(k)i/ does not truncate, cf. for example /ngaku-d-i/, not /*ngzku-d/.³

In summary, the pronoun stem consists of a root showing person and a suffix showing number and generation harmony. An augment /-ki/, /-i/ is added after pronoun stems ending in the apicals /n, d, l/, all of which are non-singular, and after the second person singular stem /nying-/.

4.6 Disharmonic pronouns

4.6.1 Plural: Degemination and Non-Apical Consonant Deletion

Let us now consider the nominative, accusative, and genitive forms of the plural disharmonics:

| 20. | NOMINATIVE | ACCUSATIVE | GENITIVE |
|------|------------|--------------|----------------|
| 133d | nya-lmu | nya-lmuu-n | nya-lmung-an |
| 122d | ngaku-lmu | ngaku-lmuu-n | ngaku-lmung-an |
| 222d | ki-lmu | ki-lmuu-n | ki-lmung-an |
| 333d | pi-lmu | pi-lmuu-n | pi-lmung-an |

The segmentation I have performed in (10) sets of person root, number/harmony suffix, and case suffix. I have selected alternants for the case forms that are found generally in the language, thereby creating considerable allomorphy for the number/harmony suffix. But this allomorphy is fully accounted for by assuming underlying /-lmung/ for 'disharmonic plural' and applying independently needed rules, as the following derivations for the 133d forms show.

| 21. | NOMINATIVE | ACCUSATIVE | GENITIVE |
|----------------|-------------|----------------|------------------|
| | /nya-lmung/ | /nya-lmung-in/ | /nya-lmung-ngan/ |
| N.A.C.T. | ∅ | - | |
| Degemination | - | - | ∅ |
| V. Lengthening | - | uu∅ ∅ | - |
| | [nyalmu] | [nyalmuun] | [nyalmungan] |

14a must now be replaced by 22:

22. Disharmonic plural is /-lmung/.

The future and non-future of disharmonic forms are based directly on the pronoun stem, not on the accusative or agentive: e.g. /nya-lmung-kur/ F, /nyalmung-ad/NF.

4.6.2 Dual: Medial Non-Apical Deletion and Vowel Lengthening

It has already been concluded from the study of nominatives that the dual disharmonic pronoun stems consist underlyingly of person root plus disharmonic dual marker /-ning/, /-ngin/. In examining the case and tense forms, these general conclusions are confirmed, but we can see

that the distribution of underlying /-ning, -ngin/ is somewhat more complex. Also, an alternant /-nging/ must be set up.⁴

The choice of a particular alternant /-ning/, /-ngin/, or /-nging/ accounts for several facts:

i. in the nominative, the selection of an augment (/ -ngin/ in 13d, 22d, 33d); or the failure to select an augment (/ -ning/ in 12d). (An augment is required after an apical but disallowed after a velar.)

ii. the phonetic alternation between /n/ of /-ning/ in 12d and vowel length, triggered by underlying /-nging/, in 13d, 22d, 33d.

The following derivations illustrate the analysis. The rule of Vowel Lengthening has to be applied iteratively, as in the Accusative of 13d and elsewhere, but there are only two degrees of length, i.e. short and long.

| 23. | NOMINATIVE | ACCUSATIVE | GENITIVE |
|-------------------|--------------|-----------------|-------------------|
| a 13d | /nya-ngin/ | /nya-nging-in/ | /nya-nging-ngan/ |
| Degemination | -- | -- | ∅ |
| Pronoun Aug. | ki | -- | -- |
| Vowel Lengthening | aa ∅ ∅ | ii ∅ ∅ | aa ∅ ∅ |
| Vowel Lengthening | -- | aa ∅ ∅ | -- |
| | [nyaanki] | [nyaan] | [nyaangan] |
| b 12d | /ngaku-ning/ | /ngaku-ning-in/ | /ngaku-ning-ngan/ |
| Degemination | -- | -- | ∅ |
| Pronoun Aug. | -- | -- | -- |
| N.A.C.T. | ∅ | -- | -- |
| Vowel Lengthening | -- | ii ∅ ∅ | -- |
| | [ngakuni] | [ngakuniin] | [ngakuningan] |

| | | | |
|----------------|--------------|------------------|-------------------|
| c 22d | NOMINATIVE | ACCUSATIVE | GENITIVE |
| | /nying-ngin/ | /nying-nging-in/ | nying-nging-ngan/ |
| Degemination | ∅ | ∅ | ∅ ∅ |
| Pronoun Aug. | ki | -- | -- |
| N.A.C.T. | -- | -- | -- |
| V. Lengthening | ii∅ ∅ | ii∅ ∅ | ii∅ ∅ |
| V. Lengthening | -- | ii ∅ ∅ | -- |
| | [nyiinki] | [nyiin] | [nyiingan] |
| d 33d | /ni-ngin/ | /ni-nging-in/ | /ni-nging-ngan/ |
| Degemination | -- | -- | ∅ |
| Pronoun Aug. | ki | -- | -- |
| N.A.C.T. | -- | -- | -- |
| V. Lengthening | ii∅ ∅ | ii ∅∅ | ii ∅∅ |
| V. Lengthening | - | ii ∅ ∅ | -- |
| | [niinki] | [niin] | [niingan] |

The distribution of the disharmonic-dual alternants is as follows:

24. Disharmonic /-ning/ after disyllabic root
 Dual --- /-ngin/ after monosyllabic root, in
 nominative
 /-nging/ after monosyllabic root, when
 case or tense is added

4.6.3 Future and Non-Future

The tense forms for the disharmonic duals and plurals are formed by adding the tense directly to the stem. I illustrate with first person exclusive and inclusive duals.

| | | | |
|-------------------|-----------------|------------------|-----------------|
| 25. a 13d | ACCUSATIVE | FUTURE | NON-FUTURE |
| | /nya-nging-in/ | /nya-nging-kur/ | /nya-nging-ar/ |
| Vowel Lengthening | aa ∅∅ | aa ∅∅ | aa∅ ∅ |
| Vowel Lengthening | aa ∅ ∅ | -- | -- |
| | [nyaan] | [nyaangkur] | [nyaangar] |
| b 12d | /ngaku-ning-in/ | /ngaku-ning-kur/ | /ngaku-ning-ar/ |
| Vowel Lengthening | ii∅ ∅ | -- | -- |
| | [ngakuniin] | [ngakuningkur] | [ngakuningar] |

4.7 Harmonic pronouns

The dual and plural harmonic pronouns are repeated in 26 below.

26. Harmonics

| | NOMINATIVE | ACCUSATIVE | GENITIVE |
|------|------------|---------------|--------------|
| 13h | nya-d-i | nya-d-wee-n | nya-d-we-n |
| 12h | ngaku-d-i | ngaku-d-wee-n | ngaku-d-we-n |
| 22h | ki-d-i | ki-d-wee-n | ki-d-we-n |
| 33h | pi-d-i | pi-d-wee-n | pi-d-we-n |
| 133h | nya-l-i | nya-l-wee-n | nya-l-we-n |
| 122h | ngaku-l-i | ngaku-l-wee-n | ngaku-l-we-n |
| 222h | ki-l-i | ki-l-wee-n | ki-l-we-n |
| 333h | pi-l-i | pi-l-wee-n | pi-l-we-n |

4.7.1 Pronoun Augmentation

The nominatives in 26 all consist of Person (/nya-, ngaku-, ki-, pi-/) plus Number/Harmony (/d-, -l/), and the special Pronoun Augment /-i/, which is regular after a non-nasal in pronouns. It is now possible to summarize the environment for Pronoun Augmentation:

- i. second person singular /nying-ki/
- ii. all non-singulars not ending in /ng/.⁵

The only pronouns which take the (regular) augment /-(C)a/ are first person singular /ngat-a/ and third person singular /ni-y-a/ (the /y/ being from Glide Insertion).

4.7.2 /weng/: Vowel Lengthening and Medial Non-Apical Consonant Deletion

The accusatives and genitives in 26 have a base which is distinct from the uninflected stem (i.e. nominative, without the Augment). The extra material present is the same as that added to the third person singular pronoun: underlying /-weng/.⁶ In the accusative, this becomes /-wee/ by Vowel Lengthening and /-we/ in the genitive by Medial Non-Apical Consonant Deletion. I exemplify with the first person exclusive.

| 27. | NOMINATIVE | ACCUSATIVE | GENITIVE |
|----------------|------------|--------------------|----------------|
| | /nya-d/ | /nya-d-weng-intha/ | /nya-d-weng-n/ |
| Apocope | - | ∅ | - |
| Cluster Red. | - | ∅ | - |
| Pronoun Aug. | i | -- | - |
| V. Lengthening | - | ee∅ ∅ | - |
| M.N.A.C.D. | - | - | ∅ |
| | [nyadi] | [nyadween] | [nyadwen] |

4.7.3 Generation Harmony and Markedness

The pronouns which take /-weng/ before any overt inflected category of case or tense constitute an interesting set:

- i. the third person singular /ni-weng-/
- ii all non-singular harmonics (cf. 26)

In this respect, then, the singular and the harmonic non-singulars are treated alike. If a theory of markedness is to be developed, in which third person singular would surely be the most unmarked category among pronouns, then it is probable that harmonics are unmarked while disharmonics are marked. The particular manifestation of this in Lardil is that disharmonics are the only third-person pronouns which fail to take /-weng/ before inflectional suffixes are added. That is, these marked forms are exceptional with respect to the rule adding /-weng/.

4.7.4 Future and Non-Future

As with the singular pronouns, the non-singular harmonics base their future on the accusative and their non-future on the genitive. This is another respect in which singulars and harmonics are treated alike, in contrast to disharmonics, confirming the observation about markedness made in the previous subsection.

Below, I present illustrative derivations for tense forms of harmonics, using /nya-d/ 'first person dual exclusive', for which the accusative and genitive may be found in 27 above.

| | | |
|----------------|-----------------------|-------------------|
| 28. | F | NF |
| | /nya-d-weng-intha-ur/ | /nya-d-weng-n-ad/ |
| V. Deletion | ∅ | -- |
| V. Lengthening | e ∅ ∅ | --- |
| M.N.A.C.D. | -- | ∅ |
| | [nyadwenthar] | [nyadwenad] |

4.8 Summary of pronoun stems

A personal pronoun stem consists of one to two formatives: an obligatory Person root and a Number/Generation Harmony suffix which is overt for non-singulars.

4.8.1 Person

| | | |
|---|--------|---|
| First Person (sg) | -----> | { /ngat-/ in Nominative /ngithang-/ in Accusative /ngithu-/ in Genitive |
| First Person (non-sg) | | |
| Inclusive | -----> | /ngaku/ |
| First Person (non-sg) | | |
| Exclusive | -----> | /nya/ |
| Second Person (sg, dual disharmonic) | -----> | { /ngimpeng-/ in sg, before case/tense /nying-/ otherwise |
| Second Person (otherwise) | -----> | /ki-/ |
| Third Person (sg, dual disharmonic) | -----> | /ni-/ |
| Third Person (otherwise) | -----> | /pi-/ |

4.8.2 Number/Generation Harmony

| | | | |
|--------------------|--------|---|-----------------------------------|
| Dual Disharmonic | -----> | { | /-ning/ after disyllabic stem |
| | | | /-ngin/ after monosyllabic stem |
| | | | in nominative |
| | | | /-nging/ after monosyllabic stem, |
| | | | before case/tense |
| Plural Disharmonic | -----> | | /-lmung/ |
| Dual Harmonic | -----> | | /-d/ |
| Plural Harmonic | -----> | | /-l/ |

4.8.3 Tense Bases

Harmonics and singulars have special bases for overtly inflected forms:

for Futures: Person (Number/Harmony) Accusative

for Non-Futures: Person (Number/Harmony) Genitive

4.9 Footnotes

1. This revision follows an informal version suggested by John Robert Ross. It is not a fully satisfactory formulation as it stands.

An alternative approach would be to retain the unrevised Vowel Lengthening rule, and to add a Vowel Shortening rule (1).

(1) Vowel Shortening

V

[+long] --> [-long] / (CVC₀)ⁿ₁ ____ CC

But (1) would have to be restricted to just those vowels that have already undergone the unrevised Vowel Lengthening rule.

2. Precisely these augments /-ki/, /-i/ are added to goal nominals when incorporated into the verb /-ya/ 'go to'. See Chapter Two.

In examining paradigm 2, an alert reader might want to segment the first person inclusive disharmonic dual, so as to have an augment /-!/:

ngaku-n-i.

However, as I have already stated in 15b, this final /-ni/ reflects

the underlying disharmonic dual formative /-ning/.

3. Evidently, then, the augment must be marked as an exception to the truncation rules.

4. The allomorphy /-ning, -ngin, -nging/ looks suspicious, but I have not been able to formulate any more elegant statement.

5. The underlined condition can be eliminated from (ii) if Non-Apical Consonant Truncation is ordered before Pronoun Augmentation:

/nya-lmung/ 133d NOM

N.A.C.T. \emptyset

Pronoun Aug. - BLOCKED-

However, this will not work in nominals incorporated into /-ya/ 'go to' (cf. fn.2), as Kenneth Hale has pointed out to me. Hence: /jang-ki-ya/ (some/Aug/ go-to) 'go to some'; /kang-ki-ya/ (speech/Aug/ go-to) 'go to speech'; /kudkang-ki-ya/ (pandja/Aug/ go-to) 'go after pandja'.

6. Kenneth Hale has pointed out to me that the formative /-weng/ is related, etymologically at least, to the [-pe-] of the second singular /nyimpen/, which would be from /nging-weng-n/.

CHAPTER FIVE

DEMONSTRATIVE PRONOUNS

5.1 Near, far, and distant directionals

5.2 The near directionals

5.3 Summary

The demonstrative pronouns fall into three semantic classes:

- i. the spatial demonstratives /tiin/ 'this', /kiin/ 'that'
- ii. the referential demonstrative /nganikin/ 'that'
- iii. the directional demonstratives, including /raa/ 'that-south', /pata/ 'that-west', /riya/ 'that-east', /jidkar/ 'that-north' and others.

The spatial and referential demonstratives have underlying forms which are identical to the phonetic forms of the nominatives in (i, ii) above. They are completely regular in their inflectional paradigms, following the spell out rules for nouns. (However, the Accusative /nganikin-in/ is frequently contracted to /nganikin/, which is identical to the nominative.)

The directional determiners are also regularly inflected, but the underlying stem forms are not obvious from (iii). Moreover, the directional demonstratives distinguish overtly certain categories which are not otherwise marked in Lardil. In this section, I focus on the phonology and morphology of the directional forms.

5.1 Near, far, and distant directional demonstratives

While the spatial demonstratives distinguish near and far, the directional demonstratives distinguish an additional category: remote. The known nominatives for these are set out below.

| | | | | |
|--------|-------|-------|-----------|----------|
| 1. | east | south | west | north |
| near | riya | raa | pata | jidkar |
| far | rilud | rarud | paltu(u)d | jidkurud |
| remote | ? | ? | pathiji | ? |

All the far demonstratives share an ending containing a liquid, /l/ or /r/, a high back vowel /u/ or /uu/, and a flap /d/. Beyond this, there are enough random differences to make it necessary to present the stems as a list.

5.1.1

Beyond the nominative for the 'west' form, there is no other data available for the remote category. Probably, the underlying form of /pathiji/ ends in a non-apical consonant or such a consonant plus a vowel, /pathijiC(V)/. As it stands, the nominative would otherwise undergo truncation to /*pathi/.

5.1.2

For the near demonstratives, the following forms are attested:

| 2. | NOMINATIVE | ACCUSATIVE | FUTURE |
|----|------------|-------------|--------------|
| a | rilud | riluj-in | riluth-ur |
| b | rarud | raruuj-in | raruth-ur |
| c | paltud | paltuuj-in | paltuth-ur |
| d | jidkured | jidkuruj-in | jidkuruth-ur |

The stem-final alternation /r/, /j/, /th/ is quite regular. The underlying stem-final segment must be /t/. Word-finally, it will be regularly converted to /d/ by Sonorantization; before a vowel, it will undergo Laminalization, becoming /j/ before a front vowel and /th/ before a back vowel. I illustrate with the 'east' forms:

| 3. | NOMINATIVE | ACCUSATIVE | FUTURE |
|-----------------|------------|------------|------------|
| | /rilut/ | /rilut-in/ | /rilut-ur/ |
| Sonorantization | d | - | - |
| Laminalization | - | j | th |
| | [rilud] | [rilujin] | [riluthur] |

5.2 The near directional demonstratives

The near demonstratives are the most fully attested throughout the various case, tense, and other categories. I present below the major

inflected forms.

| 4. | NOMINATIVE | ACCUSATIVE | FUTURE | NON-FUTURE |
|-------|------------|------------|-----------|--------------|
| east | riya | rii-n | rii-wur | rii-ngad |
| south | ra-a | ra-y-in | ra-w-ur | ra-ngad |
| west | pat-a | paj-in | path-ur | path-ad |
| north | jidkar | jidkara-n | jidkara-r | jidkara-ngad |

5.2.1

The underlying stem for 'north' is obviously /jidkara-/ to which are added: /-in/ AC (reduced by Vowel Deletion to /-n/), /-ur/ F (becoming /-r/), and /-ngad/ NF. The nominative, lacking any inflectional ending, undergoes Apocope: /jidkar/.

To account for the stem alternations in the 'east' paradigm, it is necessary to assume an underlying stem /riyi/:

| 5. | NOMINATIVE | ACCUSATIVE |
|----------------|------------|------------|
| | /riyi/ | /riyi-in/ |
| Vowel Deletion | - | ∅ |
| Vowel Lowering | e | - |
| Vowel Backing | a | - |
| | [riya] | [riyin] |

The 'west' stem is /pat-/. Augmentation and Laminalization account for the paradigm in 4c, cf. 6.

| 6. | NOMINATIVE | ACCUSATIVE | FUTURE | NON-FUTURE |
|----------------|------------|------------|----------|------------|
| | /pat/ | /pat-in/ | /pat-ur/ | /pat-ad/ |
| Augmentation | a | - | - | - |
| Laminalization | - | j | th | th |
| | [pata] | [pajin] | [pathur] | [pathad] |

The 'south' stem is an open monosyllable, /ra-/. Augmentation applies in the Nominative, and Glide Insertion in the Accusative and Non-Future.

| | | | | |
|-----------------|------------|------------|---------|------------|
| 7. | NOMINATIVE | ACCUSATIVE | FUTURE | NON-FUTURE |
| | /ra/ | /ra-in/ | /ra-ur/ | /ra-ngad/ |
| Augmentation | a | - | - | - |
| Glide Insertion | - | y | w | - |
| | [raa] | [rayin] | [rawur] | [rangad] |

5.2.2 The Genitive

The genitive forms of the near directional demonstratives are all formed by adding /-kan/, the regular alternant after non-nasals. The phonetic forms of the genitives as shown in 8 are identical to the underlying representations, with one important exception.

| | | |
|-------|------------|-------------|
| 8. | NOMINATIVE | GENITIVE |
| north | jidkar | jidkara-kan |
| east | riya | rii-kan |
| west | pat-a | pa-kan |
| south | ra-a | ra-kan |

Underlying /pat-kan/ must undergo deletion of the stem-final /t/; I have no independently motivated rule to handle this.

5.2.3 Elative and Continuous

No noun phrase constituent has a source form (elative) apart from the directional demonstratives. These are formed with the suffix /-wun/ after vowels, /-un/ after a consonant.

| | | | |
|----|------------|-------------|------------|
| 9. | NOMINATIVE | ELATIVE | CONTINUOUS |
| | jidkar | jidkara-wun | jidkara-d |
| | riya | riyi-wun | riyi-d |
| | pat-a | path-un | paj-id |
| | ra-a | ra-wun | ra-y-id |

The conversion of /t/ to /th/ in /path-un/ is regular, following the Laminalization rule.

The elative form sometimes takes an additional formative (identical to the genitive) which contributes no meaning: e.g. /jidkara-wun/ or /jidkara-wun-ngan/. The continuous forms in 9 above take the ending

/-id/, which is converted to /-d/ by Vowel Deletion in /jidkara-d/ and /rii-d/. Laminalization converts underlying /pat-id/ to phonetic /paj-id/.

The insertion of a glide in /ra-id/, giving /rayid/, is in accord with the rule of Glide Insertion. Some sentences illustrating the use of the elative and continuous forms are given below.

10. a Tiin jidkarawun thaa kun.
 (there north/EI return EV)
 'There (he) is returning from the north.'
- b Waangkur nyerwi niya pathunngan.
 (go/F maybe he west/EI
 'He might come from the north.'
- c Riid waa.
 (east/Continuous go)
 'Go east all the time.', 'Go consistently east.'

5.2.4 Forms in /-pudi/ and /-mari/

The paradigms for directional demonstratives, when incorporated into the verbs /-pudi/ 'take from' and /-mari/ 'put, place', are shown below. In the recorded material, /-mari/ is reduced to /ma/, which typically happens to modifiers within a NP.

11. NOM

| | | |
|--------|--------------|------------|
| jidkar | jidkara-pudi | jidkara-ma |
| pata | paj-pudi | paj-me |
| riya | rii-pudi | rii-ma |
| raa | ra-pudi | ra-ma |

The conversion of /t/ to /j/ before the labial non-continuants is regular, according to Lamino-Alveolar Consonant Conversion, except that in what was recorded as /paj-me/, we would expect a nasal /ny/ in place of /j/. Also, though, the final front vowel recorded in /paj-me/ is irregular.

5.3 Summary

The case affixes for the demonstratives are regular. However, directional demonstratives have two inflectional forms, the Elative and the Continuous, which are unique to this word class.

12. Elative -----> { /-wun/ after vowels
 / -un/ after consonants
13. Continuous -----> /-id/

CHAPTER SIX

CLITICS

- 6.1 The Eventive
- 6.2 Other enclitics
- 6.3 Proclitics

Various morpheme classes are cliticized in Lardil, as described in Chapter Fifteen. Here, I am basically concerned with the phonological treatment of clitic formatives. While I will not attempt a discussion of the theory of boundaries, I do assume that formatives that undergo cliticization have a distinct boundary, which I represent here with an equals sign =, e.g. /ratha=kun/ (spear =EV). This symbol is only used in the present chapter.

6.1 The Eventive

The Eventive is /=kun/ after a (positive) verb. The meaning of this enclitic is that the event is actually instantiated; see Chapter Fifteen. The paradigms below are illustrative of this formative. The verbs here have the underlying stems /ma-th-/ 'get'; /parki-th-/ 'chop'; /wanging-/ 'go'; /kang-/ 'speak'.

| | | | |
|-------------|------------|---------------|--------------|
| 1. Positive | UN | NF | INF |
| | matha=kun | mathad=kun | majid=kun |
| | padki=kun | parkithad=kun | parkijid=kun |
| | waang=kun | waangad=kun | -- |
| | kangka=kun | kangad=kun | kangin=kun |

It is clear from 1 that an enclitic does not in general inhibit the application of rules to the stem receiving the enclitic. Thus /ma-th=kun/ undergoes Augmentation to /ma-th-a=kun/, and /padki-th=kun/ undergoes Non-Apical Consonant Truncation. Both of these rules apply otherwise only at the end of a word, and yet apply here in the middle, if the enclitic is counted. So, although enclitics are phonetically bound to the preceding word, they do not count as a part of the word for purposes of application of phonological rules such as those just mentioned. That

is, the boundary that I am writing as /=/ is treated as identical to word boundary.

This conclusion notwithstanding, it must be pointed out that one form in 1 reflects interaction between verb and enclitic: /wang=un/. Given the regular phonological rules, and the assumption that enclitic boundary is equivalent to word boundary, we anticipate the following (empirically incorrect) derivation:

2. /wanging=kun/
 Vowel Lengthening aaøø
 N.A.C.T. ø
 [*waakun]

The special features of the correct form /waang=un/, then, are the non-truncation of the stem-final /ng/ and the elision of the initial /k/ of the Eventive Enclitic. While there is clearly something exceptional here, these two phenomena can actually be shown to have the same explanation.

To prevent truncation of the /ng/, it must be assumed that the enclitic /=kun/ is converted to an affix in this particular item. Then, since the stem-final /ng/ is no longer word-final, truncation (i.e. Non-Apical Consonant Truncation) is blocked. At the same time, it is possible after the Enclitic-to-Affix conversion to apply the minor rule of k-Elision. In Chapter Two, it has been shown that a form like for example /tangkan/ is converted to [tangan]. The phonological environment here is very similar, both forms in fact being precisely characterized as /CVng(k)Vn/, where the elided /k/ is in parentheses. The derivation below summarizes my proposal, cf. 2.

3. /wanging=kun/
 Enclitic to Affix Conversion ---
 Vowel Lengthening aaøø
 N.A.C.T. ---
 k-Elision ø
 [waangun]

The irregular nature of /waangun/ is thus confined to its undergoing Enclitic-to-Affix Conversion, the only aspect of the above derivation which is not due to a rule that has already been motivated. However, I show below in Chapter Nine that Enclitic-to-Affix Conversion is not ad hoc: it is really a special case of a readjustment rule that is needed anyway in Lardil.

6.1.1 The Eventive and Negative Verbs

The Eventive enclitic /=kun/ is not used with negative verbs. Instead, the Negative formative is phonetically /-adi, -wedi/ instead of the usual /-ad, -wed/, the alternants introduced in Chapter Three:

4. Negative Eventives

maj-adi
padkij-adi
wangij-adi
ka-wedi

We can see that the final /-i/ is a part of the Negative morpheme from forms such as /kuwu-wedi-wur/ (eye/lack/F) 'blind/Future'.

A further complication is that the alternants /-adi, -wedi/ can be used even when the Eventive meaning is clearly absent, as in a generic sentence like 5.

5. Nyalmu tultijadi nyalmunganin yidin.

(w. cover/NG our/AC body/AC)

'We (habitually) did/do not cover our bodies'.

6.2 Other enclitics

In general, enclitics have no affect on the words to which they attach. For example, the second position enclitic /=thada/ 'meanwhile' does not inhibit truncation of underlying /thapuji/ 'older brother' in 6a, nor of /were-th/ 'send' in 6b.

6. a Ngithun thapu=thada were wangalkin.
 (my 1 V 2/AC)
- b Were=thada ngithun thapu wangalkin.
 (V my 1 2/AC
 'Meanwhile, my brother threw a boomerang.'
 1 V 2

6.3 Proclitics

Like enclitics, proclitics do not count for purposes of word-level phonology. Thus Augmentation affects underlying /ma-th-/ 'get' equally in all the following. (Glosses are provided for the proclitics.)

7. ma-th-a
 yuur=ma-th-a (Perfective)
 tiwadku=ma-th-a (yesterday)

In summary, clitics act phonologically like separate words apart from being phonetically bound to a full word. The irregular form /waangun/ shows in two respects that the enclitic /=kun/ is treated in this particular word like a true suffix.

CHAPTER SEVEN
ATTRITION: A LATE RULE

- 7.1 The environment for Attrition
- 7.2 Rule exceptions: the Locative
- 7.3 Footnotes

Words which end in an affix or enclitic terminating (phonetically) in an apical can lose that segment. In particular, the Accusative /-in/ (from underlying /-intha/) may appear as [-i]; the Non-Future /-(ng)ad/ (from /-(ng)adpa/) as [-(ng)a]; the Future /-kur, -wur, -(u)r/ as [-ku, -wu, -(u)]; and the Eventive enclitic /-kun/ as [-ku]. As suggested by Ken Hale (in an unpublished MIT handout), I assume a rule, called Attrition, which deletes the final /n/, /r/, or /d/ of these formatives.

7.1 The environment for Attrition

The environment for Attrition is complex. One of the factors can be discerned from an examination of the Lardil words in Hale (1965:32-41), which are transcribed with the effects of Attrition being shown. I list some of these in 1. Attrition has applied in 1a, but not in 1b. For consistency, I use my symbols /ng, r, th, j/ in place of Hale's η , R T t^Y, respectively. I enclose in parentheses the alternative non-occurring possibility, some of which are impossible, as discussed later.

| | | | |
|------|-----------------|--------------------------|---------------|
| 1. a | karnjin-i | (karnjin-in | 'wallaby/AC' |
| | pidngen-i | (pidnger-in) | 'woman/AC' |
| | wiijid-ku | (wiijid-kun) | 'trim/INF' |
| | wereth-u | (w ^r reth-ur) | 'throw/F' |
| | ngeerneth-u | (ngeerneth-ur) | 'sleep/F' |
| | rayith-u | (rayith-ur) | 'spear'/R/F' |
| | yadaman-ku | (yadaman-kur) | 'horse/F' |
| | putijpenngeth-u | (putijpenngeth-ur) | 'fall/CAUS/F' |

| | | | |
|---|----------|-----------------------|------------|
| b | tanga-n | (*tanga-), (*tangka-) | 'man/AC' |
| | parnga-r | (*parnga-) | 'stone/AC' |
| | kudi-kun | (kudi-ku) | 'see/EV' |

The pattern is fairly clear, even from such a limited sample. The final apical in a suffix undergoes Attrition if the word has at least three syllables, and in an enclitic if the word has at least four (counting the enclitic). This general distribution of attrited versus non-attrited forms is confirmed by an examination of further Lardil materials. However, the syllable count has to be taken as a trend or tendency rather than an absolute factor: even Hale (1965) gives forms like /math-u/ for the usual /math-ur/ 'get/F'; and see 2b below. Also the difference between affix and enclitic is not always as sharp as the data of Hale (1965) seem to indicate.

A further point is that rather than syllable counts, it could well be distance from main stress that is playing a role here; the two notions are equivalent in a language like Lardil with initial stress.

There is a second factor involved in Attrition. In the words in 2a, Attrition is inhibited, while in 2b it is not.

| | | | |
|----|---|-----------------------------|-----------------------------------|
| 2. | a | parnga-n | 'stone/AC' (NOM: wangel) |
| | | parnga-r | 'stone/F' |
| | b | wangalk-in OR wangalk-i | 'boomerang/AC' (NOM: wangel) |
| | | wangalk-ur OR wangalk-u | 'boomerang/F' |
| | | yadaman-in OR yadaman-i | 'horse/AC' (NOM: yadaman) |
| | | yadaman-kur OR yadaman-ku | 'horse/F' |
| | | nguku-n OR nguku- | 'water/AC' (NOM: nguka) |
| | | nguku-r OR nguku- | 'water/F' |
| | | nyedi-n OR nyedi- | 'mother's mother/AC' (NOM: njede) |
| | | nyedi-wur OR nyedi-wu | 'mother's mother/F' |
| | | kantukantu-n OR kangukantu- | 'red/AC' (NOM: kantukan) |
| | | kantukantu-r OR kantukantu- | 'red/F' |

Suppose Attrition were to apply in the forms of 2a. Then both the Accusative and Future of /parnga/ 'stone' would be [parnga]. These are identical to each other, but the difference in context is still clear,

for nouns are inflected for a given tense like Future only when the verb takes that tense, whereas the Accusative appears on a dependent nominal only when the verb is uninflected for tense. The crucial thing about the homophony is that both the inflected forms of 2a, after Attrition, would resemble the nominative (uninflected) form, which is /parnga/ just like the underlying stem. This is important, because overt tense or case versus nominative will serve to distinguish grammatical relations.

Now the contrast between 2a and 2b is clarified, as a functional contrast. While the effect of Attrition on forms like those in 2a would lead to unrecoverability of grammatical relations, this is never so in the forms of 2b. In each instance in the latter group, Attrition, when applied, fails to merge the inflected form with the nominative. In each of the sets /wangaik-i, wangaik-u, wanga/, /yadaman-i, yadaman-ku, yadaman/, and /nyedi-, nyedi-wu, nyede/, all three forms remain phonetically distinct. In the set /nguku-, nguka/, the Accusative and Future merge phonetically, but as we have seen, this is functionally unimportant; however both remain distinct from the nominative. The attrited form /kantukantu-/ 'F' or 'AC' happens to be identical to the underlying stem, but this does not matter, because the nominative remains distinct as /kantukan/, thanks to the perfectly general rules of Apocope and Cluster Reduction.

In summary, the application of Attrition (3) must be consistent with the two conditions (3i,ii).

3. Attrition

An apical /n,d,r/ is deleted word finally in a suffix or in an enclitic.

- i. The longer the word, the more likely it is that the rule will apply. Suffixes most readily undergo deletion if the word is trisyllabic or longer; enclitics if it is four or longer.

- ii. Attrition is inhibited if it merges an inflected form with the corresponding nominative, in nominals.¹

7.2 Rule exceptions: the Locative

If condition 3ii. is due to a general constraint, then that constraint must be of essentially the form:

4. A phonological rule may not apply so as to obliterate the distinction between grammatically contrasting forms.

Constraint 4 will in fact account for more in the phonology of Lardil than 3ii., namely the fact that there is an absolute exception to the truncation rules, i.e. Apocope and Non-Apical Consonant Truncation. The Locative formative, which is /-nge/ after nasals and /-e/ after other consonants, may not undergo these rules when the structural descriptions are met.

Suppose these rules did apply to the Locative. Then, for all the nouns in 5 below (and in general, for all polysyllabic forms in Locative /-nge, -e/), the nominative and locative would be identical.

| 5. NOMINATIVE | LOCATIVE | |
|---------------|-------------|---------------|
| kethad | kethad-e | 'river' |
| tupalan | tupalan-nge | 'road' |
| wangal | wangalk-e | 'boomerang' |
| thungal | thungal-e | 'tree, thing' |

It cannot be maintained that the Locative is impervious to all phonological rules. Degemination applies when /-nge/ is added to a stem ending in eng, e.g. underlying /thuradang-nge/ 'shark/LC' is converted to /thuradang-e/; cf. the nominative /thurada/ derived by Non-Apical Consonant Truncation. It is clearly just where constraint 4 is applicable that phonological rules are prevented from applying to the Locative.

The case for 4 can be made even stronger if we examine what happens to vowel sequences. I have assumed the Locative formative to be, after a stem ending in a vowel, a copy of that vowel.

| 6. underlying stem | NOMINATIVE | LOCATIVE | |
|--------------------|------------|--------------|-----------------|
| /kela/ | kela | kela-a | 'beach' |
| /thapuji/ | thapu | thapuji-i | 'older brother' |
| /yiliyili/ | yiliyil | yiliyili-i | 'oyster' |
| /jumpujumpu/ | jumpuju | jumpujumpu-u | 'dragonfly' |

But vowel sequences (provided both are unstressed) are regularly affected by Vowel Deletion, i.e. the second vowel is deleted. Compare

the Accusative and Future forms below, where /-in/ (from /-intha/) and /-ur/ get reduced to /-n/ /-r/, respectively, after another vowel (7a), while the full form appears after a consonant, as in 7b. (See 5,6 for glosses)

| | | |
|----|--------------|--------------|
| 7. | ACCUSATIVE | FUTURE |
| a | kela-n | kela-r |
| | jumpujunpu-n | jumpujunpu-r |
| b | kethad-in | kethad-ur |
| | wangalk-in | wangalk-ur |
| | thungal-in | thungal-ur |

If Vowel Deletion applied to the Locative of 6, then the Locative forms of those nouns would be indistinguishable from the nominative (and presumably would undergo the same truncation rules, etc.).

However, 4 as it stands is untenable. For example, Mabuyag has the same Vowel Deletion rule as Lardil, and it applies even when grammatically distinct forms are merged. Thus, the affix /-a/ 'Locative' appears in its full form after a stem ending in a consonant: /mabayg/ 'person', /mabayg-a/ 'person/LC', but it deletes entirely after a stem ending in a vowel, e.g. /saraka/ 'river', 'river/LC', with the latter gloss from underlying /saraka-a/. This is quite general in Mabuyag, and produces wholesale homophony of nominatives and inflected forms.

I see no insightful way to constrain 4 so as to restrict Lardil Vowel Deletion (etc.) but not Mabuyag Vowel Deletion. For now, language-particular conditions must be accepted for Lardil, including in particular (4).

7.3 Footnotes

1. Further study may show that frequency is also a factor. For example, the relatively rarer affixes like Admonitive /-med/, Infinitive /-id/, Imperative /-Vd, -d/, seem to be less susceptible to Attrition.

CHAPTER EIGHT

THE ACCUSATIVE AND TENSE-MOOD

- 8.1 The phonetic allomorphy
- 8.2 Evidence for an M Solution .
- 8.3 A P Solution
- 8.4 An indeterminate case
- 8.5 Footnotes

I have assumed throughout this study of word formation in Lardil that there are two kinds of rules involved: phonological rules, and morphological spell-out rules. The former rules express regularities in the sound pattern of the language and are subject to naturalness constraints and so on. A spell-out rule (to use a term from Harris 1969) expresses what is phonologically unpredictable about a given morpheme, in other words, its allomorphy. (I restrict attention here to affix and clitic categories.)

When the phonetic alternants of some morpheme are quite distinct, and reflect alternations not found elsewhere in the language, then the morphological spell-out rules give expression to the alternation, not the phonological rules. For example, the Infinitive morpheme has (among others) the three alternants /-id, -in, -ur/. To invoke phonological rules here, e.g. deriving all three alternants from underlying /ur/ by various vowel and consonant changes, would clearly go against everyone's conception of phonology, for the rules would be arbitrary and inapplicable otherwise in the language. The existence of these alternants is not a fact about the sound pattern of Lardil, but rather about this particular formative, the Infinitive. The morphological spell-out rule for this formative gives expression to this:

| | | |
|-------------------|---|---|
| Infinitive -----> | { | -id (in a certain environment) -in " " " " -ur " " " " ... |
|-------------------|---|---|

In contrast, the phonetic alternants of the Accusative which have

been studied so far can all be derived from a single underlying representation /-intha/ by independently needed rules:

/-ntha/ by Vowel Lengthening (for a preceding vowel) in
pronouns

/-in/ by Apocope and Non-Apical Consonant Truncation

/-n/ by Apocope, Non-Apical Consonant Truncation, and
Vowel Deletion.

Some other phonetic alternants of the Accusative are not obviously expressed by either type of rule, and it requires close examination to choose between the two. It is to these that I now turn my attention.

8.1 The phonetic allomorphy

In certain subordinate clause types, a nominal may be deleted under identity with a superordinate term (by either Equi or by Relativized Nominal Deletion). When one of these deletion rules applies, the subordinate clause must agree in case with the superordinate trigger of deletion. There are two possible categories here: the Nominative, which is the case of the subject; and the Accusative, which is the case of a direct or indirect object. Because the Nominative is actually the unmarked case, it is only when the controller is a non-subject that there is overt marking in the respect under discussion. The sentences 1a,b show the contrast. In both sentences, the controller is /mangarta/ 'child'; in 1a, that nominal is a subject in the Nominative, but in 1b, it is a direct object in the Accusative: /nganikinin maanangan/ (that/AC child/AC). I have underlined the extra phonetic material in the subordinate clause of 1b that reflects the Accusative -- observe that the case along with the tense spreads throughout the subordinate clause by Concord. (However, as we will see, the introduced Accusative goes on an undeleted subject, whereas tense only goes on non-subject dependents.)

1. a Mangarta yuud tenja, wangalkad wungithad.

1 2/NF V/NF
 (child run boomerang steal)
 'The child who stole a boomerang has run off.'

1 1 2

- b Pidngen netha kun nganikinin maanangan, wangalkadpa wungithadpa.

1 V 2/AC 2/INF/AC V.NF/AC
 (woman hit that child boomerang steal)

'A woman hit the child who stole the boomerang.'

1 2 1 2

Below, I present paradigms of verbs and nouns showing that the phonetic contrasts of 1 are consistent.

| | | | | |
|------|--------|------------|--------------|---------|
| 2. a | verbs | NF | NF/AC | |
| | wungi | wungi-thad | wungith-adpa | 'steal' |
| | padki | padkith-ad | padkith-adpa | 'chop' |
| | matha | math-ad | math-adpa | 'get' |
| | kangka | kang-ad | kang-adpa | 'speak' |
| | waa | waang-ad | waang-adpa | 'go' |
| | rikur | rik-ad | rik-adpa | 'cry' |

| | | | | |
|---|---------|--------------|----------------|---------------|
| b | nouns | | | |
| | wangal | wangalk-ad | wangalk-adpa | 'boomerang' |
| | thungal | thungal-ngad | thungal-ngadpa | 'tree, thing' |
| | pidngen | pidngen-ad | pidngen-adpa | 'woman' |

The contrast, then, is between the phonetic sequences /-ad/ for Non-Future; and /-adpa/ for Non-Future plus Accusative (the variation from this in 2b, i.e. /thungal-ngad, thungal-ngadpa/, is predictable from the allomorphy of the Non-Future, cf. Chapter Two). It is possible that the Accusative has the allomorph /-pa/ in the environment: after Non-Future tense (3). Because this solution has an elaboration in the statement of allomorphy, call it the Morphological Solution.

3. Morphological Solution

NF ----> /-(ng)ad/
 AC ----> /-pa/ after NF
 /-intha/ elsewhere

But an alternative solution exists which exploits independently needed phonological rules to account for phonetic alternations: call it the Phonological Solution. It works as follows. We assume the Non-Future to be /-(ng)adpa/ underlyingly and the Accusative to be /-intha/ everywhere. Then the correct phonetic forms result from the application of phonological rules:

4. Phonological Solution

NF ----> /-(ng)adpa/
 AC ----> /-intha/

Phonological rules: Vowel Deletion, Apocope, Cluster Reduction, Attrition.

I illustrate this solution using the verb /wungi/. The final /d/ of the future may or may not be deleted by Attrition.

| 5. | NF (only) | NF/AC |
|--------------|----------------|----------------------|
| | /wungith-adpa/ | /wungith-adpa-intha/ |
| V. Deletion | -- | ∅ |
| Apocope | ∅ | ∅ |
| Cluster Red. | ∅ | ∅ |
| Attrition | (∅) | ∅ |
| | [wungitha(d)] | [wungithadpa] |

While this solution requires that Attrition be essentially obligatory with the sequence NF/AC, this is not unreasonable, because forms containing this sequence are invariably longer than morphologically less complex forms.

Before turning to the evidence bearing on the choice between the Morphological and Phonological Solutions, I introduce two more instances of phonetic allomorphy, to complete the paradigm.

The Future tense is /-ur/ (or /-wur/ or /-kur/ in restricted environments, see Chapter Two), as in 6a. The sequence F/AC is /-uru/,

as in 6b. (Or, of course, /-wuru, -kuru/.)

6. a Pidngen waangun, mathur ngukur.

| | | | |
|---------------------------------|------|-----|--------|
| 1 | V/EV | V/F | 2/F |
| (woman | go | get | water) |
| 'The woman went, to get water.' | | | |
| 1 | | 2 | |

b Ngata were kun pidgnenin, mathuru ngukuru.

| | | | | |
|-----------------------------------|------|-------|--------|--------|
| 1 | V | 2/AC | V/F/AC | 2/F/AC |
| (I | send | woman | get | water) |
| 'I sent the woman, to get water.' | | | | |
| 1 | | 2 | | 2 |

The paradigm in 7a shows that this allomorphy is quite general.

| | | |
|------------|------------|-------------|
| 7. a verbs | F | F/AC |
| wungi | wungith-ur | wungith-uru |
| padki | parkith-ur | parkith-uru |
| matha | math-ur | math-uru |
| kangka | kang-kur | kang-kuru |
| waa | waang-kur | waang-kuru |
| rikur | rik-ur | rik-uru |

b nouns

| | | | |
|--------|-------------|--------------|-----------------|
| wangal | wangalk-ur | wangalk-uru | |
| nguka | nguku-r | nguku-ru | 'water' |
| thapu | thapuji-wur | thapuji-wuru | 'older brother' |

Again, two solutions present themselves for consideration, the M(orphological) and the P(honological).

8. M Solution

| | | | |
|-----------|---|--------------------|--|
| F -----> | { | /-wur/ | (in specific environments, see Chapters Two, Three) |
| | | /-kur/ | |
| | | /-ur/ | |
| AC -----> | { | /-u/ after F | |
| | | /-intha/ elsewhere | |

9. P Solution

| | | |
|-----------|---|------------------------------------|
| F -----> | { /-wuru/ /-kuru/ /uru/ /-intha/ | (in same environments as above) |
| AC -----> | | |

Phonological rules: Vowel Deletion, Apocope, Cluster
Reduction, Attrition.

The phonetic form /wungithuru/ 'steal/F/AC' results directly from the morphological spell-out rules of the M Solution (8): /wungith-ur-u/. In the P Solution, the affixes selected are /-uru/ 'F' and /-intha/ 'AC', being reduced as follows:

| | | |
|-------------------|---------------|---------------------|
| 10. | F | F/AC |
| | /wungith-uru/ | /wungith-uru-intha/ |
| Vowel Deletion | -- | ∅ |
| Apocope | ∅ | ∅ |
| Cluster Reduction | --- | ∅ |
| Attrition | --- | ∅ |
| | [wungithur] | [wungithuru] |

The final distinct phonetic manifestation of the Accusative is illustrated in 11. After the Admonitive, phonetically /-med/ as in 11a, addition of the Accusative is shown by /-a/, 11b.

11. a Ngata kudape kun, yalaliny-med.

1 V V/ADM

(I silent laugh)

'I became silent, lest I laugh/so that I wouldn't laugh.'

b Ngata netha kun pidngenin, yalalinij-meda.

1 V 2/AC V/ADM/AC

(I hit woman laugh)

'I hit the woman, lest she laugh/so that she wouldn't laugh.'

The contrast between /-med/ 'ADM' and /-meda/ 'ADM/AC' is uniform for all verbs:

| | | |
|--------|-------------|--------------|
| 12. U | ADM | ADM/AC |
| wungi | wunginy-med | wunginy-meda |
| padki | padkiny-med | padkiny-meda |
| matha | many-med | many-meda |
| kangka | kany-med | kany-meda |
| waa | wanginy-med | wanginy-meda |
| rikur | riny-med | riny-meda |

Here, the M and P Solutions are:

13. M Solution

ADM ----> /-med/
 AC ----> { /-a/ after ADM
 /-intha/ elsewhere

14. P Solution

ADM ----> /-meda/
 AC ----> /-intha/

Phonological rules: Vowel Deletion, Apocope, Cluster
 Reduction, Attrition

It should be obvious that I have set up the three M Solutions in such a way that they can be considered separately; acceptance of two or all three of them will entail adjustments to make them mutually consistent.

The P Solution (14) is illustrated by the derivations in 15.

| | | |
|---------------------------|-----------------|-----------------------|
| 15. | ADM | ADM/AC |
| | /yalalith-meda/ | /yalalith-meda-intha/ |
| Lamino-Alv. C. Conversion | ny | ny |
| V. Deletion | -- | ∅ |
| Apocope | ∅ | ∅ |
| Cluster Red. | -- | ∅ |
| Attrition | (∅) | ∅ |
| | [yalalinye(d)] | [yalalinymeda] |

The general preference among phonologists would be, I believe, in favour of the Phonological Solution in each of the three instances, i.e. 4,9,14 would be selected over 3,8,13, respectively. The desirability of generality plays a key role here: each of the P Solutions reduces or eliminates underlying allomorphy and exploits to the maximum independently

needed rules. The M Solutions, on the other hand, proliferate underlying allomorphy in the spell-out rules, instead of employing phonological rules which are already in the language.

It may seem that the choice is so obvious that I should not even be considering the M Solutions in these instances at all. However, there are two good reasons for doing so.

One is that disparities between underlying and phonetic canonical forms lead to reanalysis, cf. Hale (1973). That is, there is change in the underlying representation to bring it closer to the phonetic form - a reanalysis that invariably increases allomorphy and requires an M Solution after the change. Part of Hale's evidence came from a study of Lardil and Damin, the results of which have been confirmed by new facts described in Chapter Two. There are, then, well-established circumstances under which the M Solution can be selected over the P Solution. In the light of this, the choice must be an explicit, not implicit one.

The second reason that I have for contrasting the P and M Solutions set out above is that there is some direct evidence in favour of one of the M Solutions, viz. 8, to which I now turn.

16. Summary of Phonetic Allomorphy

| | NF | F | ADM |
|------------------|-----------|------------|-------|
| without AC | -(ng)ad | -(k, w)ur | -med |
| together with AC | -(ng)adpa | -(k, w)uru | -meda |

8.2 Evidence for an M Solution

It has already been noted in Chapter Two that, for nouns, the Future, Propriative, Instrumental, Infinitive, and Admonitive all share a single set of allomorphs: /-wur/ after a high front vowel; /-kur/ after a nasal; and /-ur/ elsewhere. These five categories also appear in identical form when in combination with the Accusative (where this combination is syntactically possible), or with certain other formatives. I will briefly exemplify these. The combination F/AC has been shown in 6; PRP and PRP/AC are contrasted in 17; ADM/AC is shown in 18; and IN/AC in 19. The Infinitive never permits further case or tense, so I won't consider it further here. The formative /-ur/ of course undergoes Vowel

Deletion after a vowel, as in /nguku-r/ (17a), /mudkunima-r/ (19a).¹

17. a Tiin nyedwe nguku-r.

(this place water/PRP)

'This place has water.'

1

b Ngata janijani kun nguku-ru nyedwin.

(I seek water/PRP/AC 2/AC)

'I looked/am looking for a place having water.'

1

2

18. Ngata netha kun yadpuj-in, yadaman-kuru peny-meda.

V 2/AC 2/ADM/AC V/ADM/AC

I kill snake, horse bite

'I killed the snake, lest (it) bite the horse.'

1

2

2

19. a Ngata netha kun karnjinin mudkunima-r.

V 2/AC instrument - IN

'I killed a wallaby with a nullahnullah.'

b Mangarta wungi kun karnjinin, ngithunin yuur-nethadpa mudkunima-ru.

V 2/AC 1/GEN/AC Perf V/NF/AC IN/AC

'The child stole the wallaby that I killed with a nullahnullah.'

All these combinations are summarized below:

| 20. | F | PRP | ADM | IN |
|--------------|------------|------------|-----------|-----------|
| a without AC | -(k, w)ur | -(k, w(ur | -(k,w)ur | -(k,w)ur |
| b with AC | -(k, w)uru | -(k, w)uru | -(k,w)uru | -(k,w)uru |

It seems safe to proceed on the assumption that these four categories (plus the Infinitive) are morphologically merged for nouns. In that case, what can be shown to be the underlying form for one can be assumed to be the underlying form for all.

Now we are in a position to choose between the M Solution (8) and the P Solution (9). The differences in underlying representations are reviewed here:

| | | | |
|-----|----------------------|-------------|-------------------|
| 21. | | M Solution | P Solution |
| | F (etc.) only (=20a) | /-(k,w)ur/ | /-(k,w)uru/ |
| | F (etc.) /AC (=20b) | /-(k,w)ur-u | /-(k,w)uru-intha/ |

These two solutions make different predictions about further morphological combinations. Consider the Inchoative, for example, which has distinct allomorphs which depend on the final segment of the stem:

| | | | |
|-----|--------------|--------------------|---------|
| 22. | STATIVE | DERIVED INCHOATIVE | |
| | a turlte | turltiya | 'soft' |
| | mutha | muthaa | 'large' |
| | b karnan | karnana | 'tall' |
| | c jirtangkul | jirtangkule | 'heavy' |

The Inchoative of a stem ending in a vowel is formed by adding /-a/. Glide Insertion has applied to underlying /turlti-a/ to derive /turlti-ya/ (22a). Where there are like vowels, e.g. /mutha-a/, no glide is inserted. After most consonants, the Inchoative is also /-a/ (22b), but after laterals, it is /-e/ (22c).

Inchoatives can be formed from Propriatives, e.g. the form /payi-wur/ 'have anger', i.e. 'be angry' has an Inchoative. Now, if the M Solution in 21 is correct, then the form in question will take the affix /-a/ after the Propriative, which is /-(k,w)ur/ in this solution:

/payi-wur-a/

The P Solution of 21 maintains the Propriative to be /-(k,w)uru/, so the Inchoative will again be /-a/, but Glide Insertion will apply between the vowels of /-(k,w)uru/ and /-a/:

/*payi-wuru-wa/

Sentence 23 shown the grammatical form:

23. Ngajuwatha payiwurakun ngithaan?
 (why V 2/AC
 'Why are [you] becoming angry at me?'

The P Solution has made an incorrect prediction, and the M Solution has made a correct one. Thus I conclude that the Propriative, together with the Future, Admonitive, and Instrumental, has an underlying form ending in a consonant: /-(k,w)ur/, and the vowel /-u/ that appears when

the Accusative formative is added is an allomorph of this latter category.

There is further support for this conclusion. The Propriative may be inflected for the various tenses. In 24, a Propriative form /kang-kur/ 'one having speech, herald, news man', based on the noun /kang-/ 'speech', functions as the direct object of a verb in the Non-Future, and so that NP takes the Non-Future by Concord. The P Solution predicts the ungrammatical /*kang-kuru-ngad/ here, but the M Solution correctly predicts /kang-kur-ngad/:

24. Ngata kudithad kangkurngad, ngata ngaluthur kilmungkur.

| | | | | | |
|----|------|--------|---|------|------|
| I | V/NF | 2/NF | 1 | V/F | 3/F |
| (I | see | herald | I | tell | you) |

'If I see the herald, I'll tell you.'

| | | | |
|---|---|---|---|
| 1 | 2 | 1 | 3 |
|---|---|---|---|

If the M Solution (8) is correct, as I have argued here, then the following morphological spell-out rules are in Lardil:

25. F -----> { /-kur/ after nasals
 /-wur/ after high front vowels
 [-ur/ elsewhere

PRP ----- (as for F)

IN ----- (as for F)

ADM ----- /-~~med~~/ after verbs/
 (as for F after nouns)

INF ----- /-in/ after /kang-/ 'speak'
 /-id/ after other verbs
 (as for F after nouns)

AC ----- /-u/ after F, PRP, IN; and ADM and INF of nouns
 /-intha/ elsewhere

8.3 A P Solution

Having settled for the M Solution (8) in preference to the P Solution (9) for the Future (etc.) we are not committed either way for the Non-Future, i.e. (3) vs. (4). Indeed, the evidence here, though it is weak,

points to the P Solution 4.

As before, my strategy is to look at the predictions that the two solutions make with respect to the addition of further endings. Take a verb in the Non-Future plus Accusative, for instance, and add the Eventive enclitic to it. (In general, I write clitics separately, but where I wish to consider the ultimate phonetic result, I will write it with the verb.) For the verb /netha/ 'hit, kill', the M Solution (3) predicts /*neth-ad-pa-ku(n)/ (hit/NF/AC/EV), while the P Solution (4) predicts the underlying form /neth-adpa-intha-kun/, which the usual deletion rules will convert to /*neth-adpa-n-ku(n)/ (hit/NF/AC/EV). Unfortunately, there is not a clear distinction between the two solutions, as both predictions are ungrammatical, cf. 26.

26. Mangarta wungi kun karnjinin, ngithunin nethadpanu mudkunimaru.
 1 V 2/AC 1/GN/AC V/NF/AC/EV Instr/IN/AC
 (child steal wallaby I kill nullahnnullah)
 'The child stole the wallaby that I killed with a nullahnnullah.'
 (cf. 19b)

As 26 shows, the actual form representing the sequence 'hit/NF/AC/EV' is /nethadpanu/, with only /-u/ representing the Eventive, apparently. However, this form can be derived from the predicted underlying form of the P Solution, /neth-adpa-intha-kun/. The key feature of the actual phonetic form /nethadpanu/ is the presence of the apical nasal /n/, between the Non-Future (whether /-adpa/ or /-ad/) and the Eventive /-u/ (from /-kun/). Only the P Solution inserts an Accusative allomorph containing an apical nasal /n/. The M Solution has Accusative allomorph /-pa/ and so there's no way to get the nasal /n/.

The problem for the P Solution is converting the Instantiative from /-kun/ to the vowel /-u/. It can be done, however, with only a minor ad hoc change in a previously needed rule: the Enclitic-to-Affix Conversion has been applied before Apocope and Cluster Reduction. To derive a form like /nethadpanu/, the readjustment rule must be applied after the two phonological rules just mentioned. Once this readjustment rule is invoked, however, then the initial /k/ of the Eventive is deleted by the minor rule

of k-Elision (cf. Chapters Two, Three). The derivation of /nethadpanu/ is shown in 27: here, I use the equals sign = to distinguish enclitic from affix.

| | |
|----------------------------------|-----------------------|
| 27. underlying form according to | (V - NF - AC = INST |
| P Solution | /neth-adpa-intha=kun/ |
| Vowel Deletion | ∅ |
| Apocope | ∅ |
| Cluster Reduction | ∅ |
| Enclitic-to-Affix Conversion | - |
| k-Elision | ∅ |
| Attrition | ∅ |
| | [nethadpanu] |

The selection of the P Solution (4) for the Non-Future requires the following spell-out rules:

| | | |
|--------|--------|--|
| 28. NF | -----> | { /-ngadpa/ after non-nasal sonorants |
| | | { /-adpa/ after nasals and non-sonorants |
| AC | -----> | (unchanged from 25) |

8.4 An indeterminate case

In the previous two subsections, empirical evidence has been found which forces a choice between an M Solution and a P Solution. But the direction of the choice differed in the two instances. In 8.2, it was found to be necessary to accept an M Solution, by setting up a special alternant for the Accusative, /-u/, which occurs instead of the more general /-intha/ after the several morphemes of shape /-(k,w)ur/. In 8.3, the possibility of yet another Accusative alternant was rejected in favour of the P Solution, i.e. having the regular Non-Future /-(ng)adpa/ and Accusative /-intha/ combine, with the phonetic forms determined by independently needed phonological (and readjustment) rules.

In a third circumstance, involving the sequence Admonitive plus Accusative, I have set up alternative M and P Solutions (13,14, respectively), but I have no evidence internal to Lardil which forces a choice between these. Possibly, the Admonitive is underlyingly /-med/ and the Accusative

has the special allomorph /-a/ after this formative, (13), or perhaps the underlying form of the Admonitive is /-meda/, which Apocope reduces to /-med/ unless the Accusative /-intha/ follows: in that case, the sequence /-meda-intha/ is reduced by Vowel Deletion, Apocope, Cluster Reduction, and Attrition to /-meda/, (14, cf. 15).

If some general principle can be developed to account for why the M Solution (3) and the P Solution (4) are preferred over their respective alternatives, then this principle would probably automatically select between the M and P Solutions (13,14) for the Admonitive:Accusative sequence.² While I have no principle as such to propose at this time, I believe it is possible to sketch some of its properties.

Some background information is essential at this point, in particular, a historical perspective. It seems uncontroversial that the three Phonological Solutions (4,9,14) are correct for an earlier stage of Lardil or its ancestral language. While nobody has yet carried out a careful comparative-historical study, inspection of the cognate formatives in Yukulta (a close sister language to Lardil, and a phonologically conservative one, lacking the truncation rules) quickly confirms this assertion: see 29 below. The Yukulta forms are reported by Keen (1972); I give her glosses in parentheses.

29. Lardil (according to

P Solutions 4,9,14

-(k,w) uru 'F'

-adpa 'NF'

-med(a) 'ADM'

-intha 'AC'

Yukulta (Keen 1972:75,92, and elsewhere

-uru 'Proximate Future Complementizer' (Purposive)

-adpa 'NF' (Participle)

-mada (Negative Result)

-(i)nhtha, -inya 'Dative' (Benefactive)

The significance of this is that the M Solution for Lardil, when it is judged correct, as for /-(k,w)uru/ (8), must be the result of a reanalysis. So the issue of M versus P Solutions, in this instance, really revolves around questions of language acquisition. On what bases does a child construct phonological and morphological components of the language he

or she is acquiring? Under what circumstances will that child construct a grammar that differs from that of the adult speakers?

The minimal information available to the child that we must assume with respect to the present problem consists of:

- i. the phonetic contrast between /Verb-ur/ 'V/F/[etc.]' and /Verb-uru/ 'V/F/AC [etc.]' (7); and so on.
- ii. knowledge of the phonological rules of Lardil which are operative independently, in particular the truncation rules.
- iii. knowledge of both universal and language-particular constraints; e.g. 4 of Chapter Seven.

Given this information, the child will inevitably draw an interesting conclusion about verb forms like /Verb-uru/ 'V/F/AC'. It is that one of two things must be true about the underlying representation of these forms. Either:

a the forms /Verb-uru/ have undergone (minimally) the deletion of a final underlying consonant. (This is because a final vowel of a polysyllabic form undergoes Apocope, but if there is a final consonant that deletes by one of the truncation rules, then Apocope is blocked - see Chapter Two for discussion.) OR

b the forms /Verb-uru/ contain a final affix that is impervious to the truncation rules due to constraint 4 of Chapter Seven. (This constraint blocks rules that neutralize grammatically distinct forms.)

If the child chooses alternative a, then he or she will end up with the P Solution. But if the child chooses alternative b, then the M Solution is necessarily forced: the final affix must consist of the vowel /-u/; any other segmentation would not involve Constraint 4 of Chapter Seven.

It is clear that the alternative b has been preferred, at least within the range of dialect variation that is known to us. Before attempting to answer the question why b has been chosen over a, it is essential to contemplate the situation with respect to the M versus P Solutions for the Non-Future (3,4). It turns out that alternatives exactly parallel to a,b confront the child again. We know that alternatives like a lead to the P Solution (which I have shown to be the correct one),

but alternative (b), if we segment /-(ng)adpa/ as /-(ng)ad/ 'NF' plus /-pa/ 'AC' will be equally valid. That is, Constraint 4 of Chapter Seven will inhibit the truncation rules from applying to the assumed Accusative /-pa/.

If the above chain of reasoning is valid, it must still be shown why the child chooses alternative b in the instance of /-(k,w)uru/ 'F/AC', but one identical to a in essence for /-adpa/, phonetically representing 'NF/AC'. Other factors must be considered at this point.

Evidently, a crucial factor for children is frequency of forms, not necessarily in a detailed way, but at least distinguishing very common forms or sequences from very rare or non-existent ones. This factor can be shown quite plausibly to play a role in the choice between decisions like (a,b).

The P Solution 4, for the Non-Future plus Accusative sequence receives support from the phonetic form of sequences Verb/NF/AC/EV, which will be always /Verb-adpa-n-u/, where the /n/ gives evidence of underlying /-intha/ 'AC'. This sequence is a relatively common one in Lardil, and any child who is acquiring the language would hear it often, - as often, if not more frequently than the phonetic forms Verb/NF/AC, i.e. minus the Eventive, which are /Verb-adpa/. Thus, even though it is possible to divide the latter into /-ad/ 'NF' and /-pa/ 'AC' (as in the M Solution), this segmentation would not jibe with the one required of the common form type /Verb-adpanu/, and so the M Solution is eliminated and the P Solution chosen.

With the Verb/F/AC (or in place of F, PRP; or ADM of nouns) form, however, the situation is very different. There must have been a stage in Lardil when Inchoatives (cf. 23) of Proprietives were based on the ancestral underlying /-(k,w)uru/ 'F/PRP/ADM (N)' and so there probably were Inchoatives exactly like the ungrammatical form previously cited: /*pay-wuru-wa/. If such forms were used (as they must have been), they would provide evidence for the P Solution 9, not the M Solution 8 - the latter being the correct one for contemporary Lardil. But Inchoatives are relatively rare in use, I believe, and Inchoatives based on Proprietives even more so. So this kind of evidence would have been essentially

unavailable to the learner. It is significant that the only remaining place where forms in /-(k,w)uru/ turn up is as a representation of the sequence F/AC (or in place of Future, one of PRP, ADM (of N), IN.³ Thus the child learner of Lardil has good reason to conclude that the final /-u/ of such a sequence is the Accusative.

So, the frequency factor supports alternative (b) for the analysis of the sequence /-(k,w)uru/ representing F (etc.)/AC. This alternative leads historically speaking to a reanalysis, in favour of the M Solution 8. At this point, new Inchoatives like /payiwura/ (23) develop.

What I am suggesting, then, is that a combination of factors in language acquisition will lead to reanalysis in favour of an M Solution:

- i. constraints, whether language-particular or universal, that allow for either; e.g. 4 of Chapter Seven.
- ii. relative frequency of evidence for one of the solutions.

At this point, it is obvious that a study of language acquisition should be undertaken, to determine whether children do, of their own accord, embrace M Solutions under the circumstances described. Unfortunately, Lardil cannot provide a laboratory, but hopefully such studies can be undertaken using other languages.

8.5 Footnotes

1. Sentence 19b shows clearly that the underlying Accusative allomorph /-intha/ is added outside of the paradigm summarized in 16. The subject of the subordinate clause of 19b is in the Genitive, because this is a relative clause (cf. Chapter Twenty Four): /ngithun/ 'I, me/GN' and takes the Accusative, phonetically /-in/, reduced from underlying /-intha/ by the usual truncation rules.

2. In Chapter Ten, I have quite arbitrarily chosen the underlying representation for the Admonitive to be /-meda/.

3. This statement must be modified slightly, as PRP/F or IN/F will also yield phonetic /-(k,w)uru/, but this fact is consistent with either the M or the P Solutions under discussion.

CHAPTER NINE

RULE ORDERING

- 9.1 Rule Domains
- 9.2 Cyclic ordering and an alternative
- 9.3 Iterative rule application
- 9.4 Linear ordering
- 9.5 Footnotes

The purpose of this chapter is to review briefly what kinds of rule ordering must be permitted for Lardil.

9.1 Rule Domains

Some preliminary observations on the domain of phonological rule application are appropriate. In general, the phonological rules of Lardil apply at word level only, i.e. to single words consisting of root alone or root plus suffixes, or verb root plus incorporated noun (plus suffixes). However, these rules do not apply to compounds as a whole (these consist of two or more words combined), nor do most rules apply to a word in combination with the clitic which is phonetically bound to it. But four rules, summarized in two sets below, do apply to constituents longer than single words. These rules have all been presented previously.

1. Attrition applies to an inflected word or to an inflected word plus clitic.
- ii. The Truncation Rules (Apocope, Cluster Reduction, and Non-Apical Consonant Truncation) apply to words; to certain compounds (viz. /jultarel/ and those in /tangka/); and to certain NPs, viz. certain ones with /tangka/.

The rule of Attrition must be stated in such a way as to apply to word plus clitic sequences. Here, I make no attempt to accommodate this observation. However, I do have something to say about the application of the Truncation rules, in 9.2.

9.2 Cyclic ordering and an alternative

There are facts which could be plausibly cited as support for the existence of the cycle in Lardil phonology.

In Chapter Two, I simply assumed a cyclic application. Here, I argue that an alternative, non-cyclic account is preferred.

9.2.1 The cyclic solution

The force of the argument in support of the cycle lies in the exploitation of the truncation rules. These three rules delete

- i. a final vowel in a word of at least three syllables (Apocope);
- ii. the second consonant in a cluster in a word of two or more syllables (Cluster Reduction); and
- iii. a final non-apical consonant in a word of at least two syllables (Non-Apical Consonant Truncation).

The three rules apply in the order listed, which is a feeding order.

Normally, in a compound nominal, each component noun is treated independently by the phonological rules. For certain compound nominals, the situation is different, however, and this is where the phonological cycle has some potential relevance.

When the compound consisting of /julta/ 'hair' and /relka/ 'head' is formed, truncation applies to the second member: /julta-rel/ 'head-hair'. Having two cyclic applications of the phonological rules permits both this truncation and the very obvious Augmentation of the root /jul/. It has to be kept in mind, however, that this truncation is exceptional; for example, the compound /turlta-wunta/ 'rain' does not undergo truncation like this. In 2 below, I have set out derivations for these two compounds; it can be seen that the use of the cycle here allows the correct derivation of /julta-rel/.

| | | |
|-------------------|------------|-----------------|
| 2. | /jul-relk/ | /turl-wun/ |
| First Cycle: | | |
| Augmentation | ta a | ta ta |
| Second Cycle: | | |
| Apocope | ∅ | - BLOCKED- |
| Cluster Reduction | ∅ | - INAPPLICABLE- |
| | [jultarel] | [turltawunta] |

Other expressions which truncate like /jultarel/ are compounds with /tangka/ 'man', e.g. /yukadpa-rta/ 'spouse'; /manga-rta/ 'child', as well the same noun with demonstrative or pronoun dependent, e.g. /niya-rta/ (he-man) 'the man, he' (freely alternating with /niya tangka/); /tiin-ta/ (this-man) 'this person'; /pata-rta/ (west-man) 'that man to the west'. Since the disyllabic noun /tangka/ is not eligible for truncation by itself, we can account for these forms by cyclic application of the rules. I illustrate this below with the compound /mangarta/ and the NP /patarta/; cf. the derivation of plain /tangka/.¹

| | | | |
|--------------|----------------|---------------|----------|
| 3. | /mang-rtangka/ | /pat-rtangka/ | /tangka/ |
| First Cycle | | | |
| Augmentation | ka - | a - | - |
| k-Elision | ∅ - | - | - |
| Second Cycle | | | (none) |
| Apocope | ∅ | ∅ | - |
| Cluster Red. | ∅ | ∅ | - |
| N.A.C.T. | ∅ | ∅ | - |
| | [mangarta] | [patarta] | [tangka] |

9.2.2 Problems with the cyclic analysis

There are a few unsatisfactory aspects to the cyclic analysis just presented. First of all, there is the curious fact that only certain expressions that undergo any rules on the higher cycle: these have been listed in 9.2.1. Thus, the principle of the phonological cycle has to be somehow lexically governed in Lardil.

Secondly, any given word is subject to rules on a maximum of two

cycles. Consider, for example, the expression consisting of the demonstrative /pata/ 'that west' and the noun compound /mangarta/ 'child'. To judge from 3, the truncation rules should apply on both the compound cycle and the noun phrase cycle. But, in fact, a grammatical output results if truncation applies on only one of these two cycles. (I'll assume it's the compound cycle.) Contrast the derivations with three and two cycles:

4. (derivation with three cycles)

| | | | |
|--------------|-----------------|--------|----------|
| | /pat | mang- | rtangka/ |
| First Cycle | | | |
| Augmentation | a | ka | - |
| k-Elision | | Ø | |
| Second Cycle | [pata | manga- | rtangka] |
| Apocope | | | Ø |
| Cluster Red. | | | Ø |
| N.A.C.T. | | | Ø |
| Third Cycle | [pata | manga- | rta] |
| Apocope | | | Ø |
| | [*pata mangart] | | |

So, the required constraints include lexical government of the cycle and a restriction of the number of cycles in any given derivation to less than the logically possible number.

4.2.3 The non-cyclic analysis

An alternative approach eliminates these peculiarities, and has the virtue of using an independently needed mechanism. Suppose that there is a rule in Lardil which, at a certain point in the derivation, eliminates word boundary -- I'll call it Word Boundary Deletion, WBD. Then all rules that apply subsequent to WBD will treat two words as one. Next, make this rule lexically governed: it will apply only in the compound /jultarel/ (which is in any case irregular in its stress pattern) and to /tangka/ together with an immediately preceding dependent.

This solution accounts for all the facts handled by the cyclic solution, as the derivations 6, 7 show; cf. 2,3,4,5. And the peculiarities

of the cyclic solution are eliminated. Rule government as proposed here is much more acceptable than lexical government of the cycle. The ungrammaticality of /*patamangart/ (4) is now predicted, because WBD only eliminates the word boundary between /(r)tangka/ and the immediately preceding word. In the derivations below, I have introduced the double cross # to mark the crucial word boundary that is erased by WBD; cf. again /turltawunta/.

| | | | | | | |
|-------------------|------------|---|-------|----------------|---------|------|
| 5. | /jul | # | relk/ | /turl | # | wun/ |
| Augmentation | ta | | a | ta | | ta |
| WBD | | ∅ | | - | BLOCKED | - |
| Apocope | | | ∅ | - | | - |
| Cluster Reduction | | | ∅ | - | | - |
| | [jultarel] | | | [turlta#wunta] | | |

| | | | | | | | | | | | |
|-------------------|------------|---|---------|-----------|---|---------|-----------------|----|------|---|---------|
| 6. | /mang | # | tangka/ | /pat | # | tangka/ | /pat | # | mang | # | tangka/ |
| Augmentation | ka | - | | a | - | | a | ka | - | | |
| k-Elision | | ∅ | | | | | | | | | |
| WBD | | ∅ | | ∅ | | | | ∅ | | | |
| Apocope | | | ∅ | | ∅ | - | | | | | ∅ |
| Cluster Reduction | | | ∅ | | ∅ | - | | | | | ∅ |
| N.A.C.T. | | | ∅ | | ∅ | | | | | | ∅ |
| | [mangarta] | | | [patarta] | | | [pata mangarta] | | | | |

The rule of Word Boundary deletion appears to be a 'readjustment rule' in the sense of Chomsky and Halle (1968), i.e. a rule which modifies syntactically motivated constituent structure so as to permit the correct application of independently motivated phonological rules. It seems strange, perhaps, to find such a rule in the middle of the phonological component - in 5,6, this rule must follow Augmentation and precede other rules - Apocope and the other truncation rules. But I find this result to be at the very worst a trade-off with the lexical government of the cycle in the analysis of 9.2.1.

There are further relevant facts. Whichever solution is chosen a governed cycle or a governed rule, truncation of underlying /yukadpa/ 'husband' must be blocked in the compound it forms with /(r)tangka/, but

not otherwise. In the cyclic analysis, it must be the case that the lowest logical cycle, i.e. the word level cycle, must be non-existent: that way, the truncation rules can't apply to /yukadpa/ but they can apply to the compound as a whole. In the non-cyclic solution advocated here, the truncation of /yukadpa-/ in the compound is preventable by ordering WBD before truncation - but this is just where WBD has been ordered anyway, as in 6,7. Thus the derivation of /yukadpata/ represents a complication for the cyclic solution, but not for the non-cyclic one that I have advocated.

I present the non-cyclic derivation of /yukadpata/, using WBD, below.

| | | |
|--------------|--------------------|-----------|
| 7. | /yukadpa #rtangka/ | /yukadpa/ |
| Augmentation | - | - |
| WBD | Ø | |
| Apocope | Ø | Ø |
| Cluster Red. | Ø | Ø |
| N.A.C.T. | Ø | - |
| | [yukadparta] | [yukad] |

A further argument in support of the non-cyclic analysis is that WBD is really needed anyway in the grammar of Lardil. In Chapter Seven, it has been shown that a specific verb stem, underlyingly /wanging-/ 'go', together with the Eventive enclitic /-kun/ must be treated as a single word in order to block Non-Apical Consonant Truncation and to permit k-Elision. In Chapter Seven, I set up an ad hoc rule of 'Enclitic-to-Affix Conversion'. It can be seen now that this was simply a special case of Word Boundary Deletion, ordered before the truncation rules, as in other derivations.²

I conclude that the evidence is quite strong against the relevance of the phonological cycle for the forms cited in this subsection.

9.3 Iterative rule application

At least two rules in Lardil phonology apply iteratively, i.e. they apply to their own output. These are Vowel Lengthening, and Medial Non-Apical Consonant Deletion. The iteration can be from left to right or right to left. Thus Lardil gives proof that rule iteration exists, but provides

insufficient evidence for any constraints on this type of rule application. Moreover, the iterated Vowel Lengthening is a minor rule. In 8, the personal pronoun /nyiin/ 'you/dual/disharmonic/accusative' is derived; and in 9, /rine/ (cry/NG) 'don't cry!'. The underlying forms have been motivated in Chapters Four and Three, respectively.

| | | |
|-----------------------|------------------|------------------|
| 8. | (left to right) | (right to left) |
| | /nying-nging-in/ | /nying-nging-in/ |
| Degemination | ∅ | ∅ |
| Vowel Lengthening | iɪ ∅∅ | iɪ∅ ∅ |
| Vowel Lengthening | iɪ ∅ ∅ | iɪ∅ ∅ |
| | [nyiin] | [nyiin] |
| 9. | /rik-th-rneng/ | /rik-th-rneng/ |
| Anterior Assimilation | n | n |
| M.N.A.C.D. | ∅ | ∅ |
| M.N.A.C.D. | ∅ | ∅ |
| N.A.C.T. | ∅ | ∅ |
| | [rine] | [rine] |

9.4 Linear ordering

In earlier chapters, I have claimed that certain pairs of rules must be applied in a fixed order. I will now consider whether the order of rule application follows from general principles, especially those proposed by Koutsoudas, Sanders, and Noll (1974). First, it is necessary to consider the kind of relationship in which the ordered rules stand. There are too many rules to discuss each combination individually, without making it a major study, so I have simply summarized them here.

10. Unordered (no interaction with other phonological rules)

Pronoun Augmentation

Vowel Deletion

r Deletion

e - Redundancy Rule

Stress

r-Lateralization

Vowel Lowering and Backing

11. Feeding Order (first listed rule feeds the other(s))

- | | |
|--|--------------------------------------|
| Anterior Assimilation | - Voicing Rule |
| Augmentation | - Glide Insertion, Voicing Rule |
| Apocope | - Sonorantization, Cluster Reduction |
| Laminalization | - Vowel Backing |
| Lamino-Alveolar Consonant Conversion | |
| | - Degemination |
| Degemination | - Voicing Rule |
| Medial Non-Apical Consonant Truncation | |
| | - Voicing Rule |
| Pronoun Augmentation | - Voicing Rule |

12. Counterbleeding (the first listed applies first; if it applied second, it would be bled)

- | | |
|-----------------------|--|
| Vowel Lengthening | - Non-Apical Consonant Truncation |
| Vowel Lengthening | - Medial Non-Apical Consonant Deletion |
| Anterior Assimilation | - Medial Non-Apical Consonant Deletion |

b Bleeding and Counterbleeding (the first listed rule applies first and bleeds the other; application in the reverse order would also be a bleeding relationship)

- | | |
|--------------------------------------|--|
| Lamino-Alveolar Consonant Conversion | |
| | - Medial Non-Apical Consonant Deletion |

13 Feeding and Counterfeeding (each rule feeds the other but they must apply in the order listed)

- | | |
|---------|-----------------------------------|
| Apocope | - Non-Apical Consonant Truncation |
|---------|-----------------------------------|

My main focus in this brief essay is on 14, and I have only a few remarks on 11-13 at this time. Obviously, no constraints on ordering are necessary for the rules listed in 11. The Koutsoudas, Sanders, and Noll claim is that the feeding relationship, as in 12, is actually an unmarked order, in that such rules are simply applying in the order in which their structural descriptions are met.

Koutsoudas, Sanders, and Noll further claim that the linear ordering of rules which stand in a counterbleeding relationship, as in 12, is predictable from their principle of Proper Inclusion Precedence (1974:8). It is not clear to me that this principle is relevant to all the pairs in 12a, but I have no comments to make at this time. Nor is it obvious that the above-mentioned principle is applicable to rules which stand in a bleeding and counterbleeding relationship (12b), although the definition of proper inclusion is applicable here. Again, though, I will not elaborate, for my main purpose here is to examine another pair of rules.

The rules of Lardil cited in 13 have been cited as an example of the feeding relationship, e.g. by Ç. Kisseberth (1973: 165), but the actual relationship is one of mutual feeding. For example, the underlying form /maaliya/ 'swamp turtle' is converted to the phonetic /maali/ by applying these two rules in the order in which they are cited in 13:

- | | |
|---------------------------------|--------------------------|
| 14. | /maaliya/ 'swamp turtle' |
| Apocope | Ø |
| Non-Apical Consonant Truncation | Ø |
| | [maaii] |

But Non-Apical Consonant Truncation potentially feeds Apocope, as the derivation in 15 shows. But this results in an ill-formed phonetic representation.

- | | |
|---------------------------------|--------------------------|
| 15. | /warnawuth/ 'burn, cook' |
| Non-Apical Consonant Truncation | Ø |
| Apocope | Ø |
| | [*warnaw] |

I have previously assumed that the derivation 15 is excluded because the rules must be ordered as in 14. In this way, the structural description of Apocope is not met at the required point in the derivation and the correct form /warnawu/ is achieved:

- | | |
|---------------------------------|-------------|
| 16. | /warnawuth/ |
| Apocope | - |
| Non-Apical Consonant Truncation | Ø |
| | [warnawu] |

Apart from the special case of alpha-switching rules, no instances of the feeding and counterfeeding relationship were examined by Koutsoudas et al (1974:14) and so they have not attempted to deal with them.

9.5 Footnotes

1. The alternation between /-rta (ngka)/ and /-th(ngka)/ is quite regular, following the allophony rule presented in Chapter One.

2. An additional form, brought to my attention by Kenneth Hale, presents something of a problem at this point: an alternative reduction of underlying /yukadpa-rtangka/, besides [yukadparta] is [yukadta], i.e. truncation applies to both portions of the expression. The two forms, interestingly, differ in meaning: [yukadparta] is 'man, adult initiated male', but [yukadta] is 'man of married status or marriageable age'.

CHAPTER TEN

SUMMARY OF RULES

10.1 Morphological spell-out rules

10.2 Readjustment rule

10.3 Phonological rules

10.1 Morphological spell-out rules

In the summary below, related formatives are grouped together: case; tense; mood; and negative; plus the two miscellaneous collections: other affixes for nominals; other affixes for verbs.

A few important irregularities are also mentioned.

References are given in parentheses to chapters or subsections of chapters where there is discussion or an important application of the rule in question. However, these references do not constitute an exhaustive index to every mention of every rule.

10.1.1 Case

1. Accrative (2,4,5,7,8)

AC \rightarrow $\left\{ \begin{array}{l} \text{/ -u/ after F; PRP; ADM(of nominals)} \\ \text{/ -intha/ otherwise} \end{array} \right.$

2. Genitive (2,4,5)

GN → { /-n/ after singular and harmonic pronouns
/-ngan/ for other words, after nasals
/-kan/ for other words, after
non-nasals

3. Locative (2,7)

LC \rightarrow $\left\{ \begin{array}{l} /-nge/ \text{ after nasals} \\ /-e/ \text{ after non-nasal consonants} \\ /-V/, \text{ i.e. copy of preceding} \\ \text{vowel, after a vowel} \end{array} \right.$

4. Instrumental(2,8)

IN

--->

$$\left\{ \begin{array}{l} /-kur/ \text{ after nasals} \\ /-wur/ \text{ after high front} \\ \text{vowels} \\ /-ur/ \text{ elsewhere} \end{array} \right.$$

5. Comitative(2)

COM --->

/-ngun/

6. Elative(5)

EL --->

$$\left\{ \begin{array}{l} /-wun/ \text{ after vowels} \\ /-un/ \text{ after consonants} \end{array} \right.$$

10.1.2 Tense

7. Non-Future(2,3,4,5,7,8)

NF --->

$$\left\{ \begin{array}{l} /-ngadpa/ \text{ after non-nasal sonorants} \\ /-adpa/ \text{ after nasals and} \\ \text{non-sonorants} \end{array} \right.$$

8. Future(2,3,4,5,7,8)

F --->

$$\left\{ \begin{array}{l} /-kur/ \text{ after nasals} \\ /-wur/ \text{ after high front vowels} \\ /-ur/ \text{ elsewhere} \end{array} \right.$$

9. Infinitive(3)

INF --->

$$\left\{ \begin{array}{l} /-kud/ \text{ after /wanging-/ 'go'} \\ /-id/ \text{ after verbs in /-th-/} \\ \text{(identical to F, 8) after nominals} \end{array} \right.$$

10.1.3 Mood

10. (Conjoined) Imperative (3)

IM --->

$$\left\{ \begin{array}{l} /-in/ \text{ after /kang-/ 'speak'} \\ \text{V} \quad \text{V} \\ < \left[\begin{array}{c} \alpha \text{ bk} \\ \beta \text{ hi} \end{array} \right] >_d / < \# >_c \left[\begin{array}{c} \alpha \text{ bk} \\ \beta \text{ hi} \end{array} \right] \text{ ---} \end{array} \right.$$

11. Admonitive(3,8)

ADM --->

$$\left\{ \begin{array}{l} /-meda/ \text{ after verbs} \\ \text{(identical to F, 8) after nominals} \end{array} \right.$$

10.1.4 Negatives(3,6)

| | | | | |
|----|-----|-----|---|--|
| NG | --- | --> | { | /-wed1/ after verb in uninflected Non-Future, when marker /-th-/ is not present /-ed1/ after verb in uninflected Non-Future, when /-th-/ is present /-rneng/ otherwise |
|----|-----|-----|---|--|

Irregular combination:

NG/NF ---> /-rned1/

(See also Privative, 14)

10.1.5 Other affixes for nominals

13. Propriative(2,8)

PRP ---> (Identical to F,8)

14. Privative(2,6)

PRV ---> /-wed1/

15. Continuous(5)

CON ---> /-id/

10.1.6 Other affixes for verbs

16. Reflexive/passive (3)

| | | | | |
|---|-----|-----|---|---|
| R | --- | --> | { | /-1/ after monosyllables Copy of preceding vowel after disyllabics and polysyllabics |
|---|-----|-----|---|---|

17. Verb marker (3)

Marker ---> /-th/

18. Reciprocal(3)

RECIP ---> /-nj1/

19. (Agent) Nominalization(3)

| | | | | |
|-------|-----|-----|---|--|
| NOMLZ | --- | --> | { | /-Vn/ after monosyllabic roots, where V is a copy of the stem vowel /-in/ after a disyllabic or polysyllabic |
|-------|-----|-----|---|--|

20. Instrumental nominalization(3)

(Consists of the sequence: R/NOMLZ)

21. Negative nominalization (3)

(Consists of: Marker/NG)

22. Inchoative (3)

Inchoative \rightarrow $\left\{ \begin{array}{l} /-ya-th-/ \text{ after vowels} \\ /-e-th-/ \text{ after laterals} \\ /-a-th-/ \text{ after consonants} \end{array} \right.$

23. Causative (3)

Causative \rightarrow $/-pennge-th-/$

10.2 Readjustment rule

Word boundary deletion (9,6)

Eliminate the word boundary:

(a) between $/\langle r \rangle tangka/$ and a preceding dependent(b) between $/wanging/$ and $/kun/$

10.3 Phonological rules

The rules are listed in alphabetical order. A list of references to subsections of previous chapters is included for each rule. These references are not exhaustive, but do include all major discussions.

Examples (provided purely as a memory aid) are either phonetic forms or intermediate forms. (In the latter instance the phonetic form is supplied in parentheses.) The segment affected by the rule is underlined; a deleted or inserted segment is parenthesized. Related forms unaffected by the rule are often shown for comparison.

The final piece of information included for each rule comprises any ordering relationships with other rules.

1. ANTERIOR ASSIMILATION

$$\begin{bmatrix} + \text{ap} \\ - \text{ant} \end{bmatrix} \quad \longrightarrow \quad [+ \text{ant}] / [+ \text{ant}] + ___$$

References: 1.4.4, 3.5.4

Examples: ma-th-neng-kur, kang-rneng-kur(\rightarrow ka-rneng-kur)

2. APICAL DELETION

$$t \quad \longrightarrow \quad \emptyset / n ___ \quad \text{(In a restricted set of formatives, including those derived from /tang(k)a/ 'person', and where the /n/ is in the Accusative morpheme.)}$$

References: 2.6.2

Examples: tiinin-(t)angan, pajin-(t)angan, tangan

3. APOCOPE

$$V \quad \longrightarrow \quad \emptyset / (\text{CV}(\text{C}))_2 \text{C} ___ \#$$

References: 2.2.3, 3, 4, 7.2, 8, 9

Examples: thalkud(a), thalkuda-n; thapuj(i) (-- thapu), thapuji-n;
ma-th-adp(a) (-- ma-th-ad), ,ma-th-adpa-n-u

Feeds: Cluster Reduction, Sonorantization

Feeds and Counterfeeds: Non-Apical Consonant Truncation

4. ATTRITION

$$[+ \text{apical}] \quad \longrightarrow \quad \emptyset / ___ \#$$

Conditions on environment:

(a) the apical must be /n/ of AC or EV; /d/ of NF; /r/ of F;
or in another suffix

(b) optional in disyllabics, or in trisyllabics if the /n/ of EV;
preferred in polysyllabics, or if four or more syllables
for /n/ of EV; rarely applied in words shorter than the
above

(c) blocked if leads to homophony of inflected form with nominative

References: 7, 8

Examples: yadaman-i(n), yalalithad ku(n), yalalith-a(d), yalalith-u(r)

Fed by: all the truncation rules

5. AUGMENTATION

$$\emptyset \longrightarrow \left\langle \begin{bmatrix} -\text{syl} \\ +\text{cons} \\ -\text{cont} \\ \alpha\text{cor} \\ \beta\text{ant} \\ \gamma\text{ap} \end{bmatrix} \right\rangle \left[\begin{bmatrix} +\text{syl} \\ -\text{cons} \\ -\text{hi} \\ +\text{bk} \\ +\text{lo} \end{bmatrix} \right] / \# \text{CVC}_0 \left\langle \begin{bmatrix} -\text{syl} \\ +\text{son} \\ +\text{cont} \\ \alpha\text{cor} \\ \beta\text{ant} \\ \gamma\text{ap} \end{bmatrix} \right\rangle _____\#$$

References: 2.2.5, 3.3.1, 3.5, 4.3.1, 5.2.9 (See also PRONOUN AUGMENTATION)

Examples: ril(ta), ril-in; karn(ta), karn-in; kang(ka), kang-in;
peth(a), peth-ur; relk(a), relk-in

Feeds: Glide Insertion, Voicing rule

6. CLUSTER REDUCTION

$$C \longrightarrow \emptyset / C __\#$$

References: 2.2.3, 4, 8, 9

Examples: makad(k), makadk-in; wungal(k), wungal-k-in

Fed by: Apocope

Feeds: Non-Apical Consonant Truncation

7. DEGEMINATION

$$C \longrightarrow \emptyset / C + ___$$

1 2 Condition: 1, 2 identical

References: 2.3.1

Examples: yak-(k)an, ngawu-kan

Fed by: Lamino-Alveolar Consonant Conversion

Feeds: Voicing rule

8. e-REDUNDANCY RULE

(a) Majority Dialect

$$\begin{matrix} V \\ \left[\begin{bmatrix} -\text{hi} \\ +\text{bk} \end{bmatrix} \right] \end{matrix} \longrightarrow [+lo]$$

(b) Other Dialect

$$\begin{matrix} V \\ [-\text{hi}] \end{matrix} \longrightarrow [+lo]$$

References: 1.4.3

$$\emptyset \rightarrow \begin{bmatrix} \text{+cont} \\ \text{+son} \\ \text{-cons} \\ \text{-ap} \\ \alpha\text{ant} \\ \text{-}\alpha\text{cor} \end{bmatrix} \quad / \quad \begin{matrix} \text{V} \\ \#CV ___ [\alpha \text{bk}] \\ 1. \quad 2 \end{matrix} \quad \text{Condition: 1, 2 not identical}$$

References: 2.2.5, 2.2.6, 3.2.1, 4.7.1, 8.2

Examples: ja-(y)in, ja-(w)ur, ja-a

10. k-Elision

$$k \rightarrow \emptyset / \#CVng ___ \begin{cases} a \\ u \end{cases} \quad \text{(Restricted to:}$$

/tangka/ before nasals
/mangka/ before /rt/
/waang/ before /kun/)

References: 2.6.3, 6, 9

Example: tang(k)a-n, tang(k)a-ngad, tangka

11. LAMINALIZATION

$$\begin{bmatrix} \text{+ant} \\ \text{-lab} \\ \text{-cont} \end{bmatrix} \xrightarrow{\quad} \begin{bmatrix} \text{-distr} \\ \alpha\text{ant} \end{bmatrix} \quad / \quad ___ + \begin{matrix} \text{V} \\ [\alpha \text{bk}] \end{matrix}$$

References: 2.1.4, 3.2, 3.4.1, 5.1.2

Examples: ngawith-ur, ngawij-in, ngawit; pe-j-id, pe-j-ed(-- pe-j-ad),
pe-th-a

Feeds: Vowel Backing

12. LAMINO-ALVEOLAR CONSONANT CONVERSION

$$\begin{matrix} \text{C} \\ [-ap] \end{matrix} \xrightarrow{\quad} \begin{bmatrix} \text{-ant} \\ \text{+cor} \\ \langle \text{+nas} \rangle \end{bmatrix} \quad / \quad ___ + \begin{bmatrix} \text{+ant} \\ \text{-cor} \\ \langle \text{+nas} \rangle \end{bmatrix}$$

References: 2.4.4, 3.3

Examples: wij-pudi, winy-mari, wik-a; nyij-pudi, nyiny-mari, nyut-a;
ma-ny-med, ma-th-ad

Feeds: Degemination

13. MEDIAL NON-APICAL CONSONANT DELETION

C
[-ap] --> Ø / ____+[-distr]

References: 2.4.5, 3.4.2, 3.6.3, 4, 9.3

Examples: wi(k)-wed, wik-in; ma-(th)-ned, ma-th-ad

Feeds: Voicing rule

Counterbled by: Vowel Lengthening, Anterior Assimilation

Bled and Counterbled by: Lamino-Alveolar Consonant Conversion

14. NON-APICAL CONSONANT TRUNCATION

C
[-ap] --> Ø / ____#

References: 2.2.3, 3.3.1, 3.4, 3.6.1, 4, 7.2, 9

Examples: jirntipu(w), jirntipuw-a-n; thapu(j), thapuji-n;
warnawu-(th), warnawu-th-ad; waa(ng), waang-kur

Fed by: Apocope, Cluster Reduction

Bleeds: Vowel Lowering and Backing

Counterbled by: Vowel Lengthening

15. PRONOUN AUGMENTATION

Ø --> { /-ki/ after nasals
 /-i/ after non-nasals

(Applies only to: non-singular pronouns not ending in /ng/;
and: second person singular)

References: 4.5

Examples: nying(ki); nyad(i)

Feeds: Voicing rule

16. r-DELETION

$r \rightarrow \emptyset / __ +t$ (OPTIONAL) Where: /r/ is F; and in
first member of compound

References: 2.6.6

Example: mangku(r)-rtangkar

17. r-LATERALIZATION

$[r] \rightarrow [1] / __ v$
 $[r] \rightarrow [1]$

References: 1.4.4

18. SONORANTIZATION

(a) $t \rightarrow d / __ \#$ (OPTIONAL)
 (b) $rt \rightarrow r / __ \#$ (OBLIGATORY)

References: 2.1.4, 5.1.2

Examples; (a) ngawid, ngawit

(b) kirtikir, kirtikirt i-n

Fed by: Apocope

19. STRESS

(a) Word: $V \rightarrow [1 \text{ stress}] / \#C __$
 (b) Phrase: $[1 \text{ stress}] \rightarrow [2 \text{ stress}] / __ X [1 \text{ stress}]$

References: 1.4.6

Examples: wérne, klín wérne

20. VOICING RULE

$p \rightarrow [-voi] / \# __$ (OPTIONALLY)
 $k \rightarrow [-voi] / \# __$ (PREFERABLY)
 $th \rightarrow [-voi] / \# __$ (OBLIGATORY)
 $p, th, k \rightarrow [-voi] / C __$

Otherwise, all segments are [+voi]

References: 1.4.5

Fed by: Augmentation, Pronoun Augmentation

21. VOWEL DELETION

$$V \quad \rightarrow \quad \emptyset / CVC_0 V + ___$$

References: 2.1.5, 2.2.5, 3.2.1, 3.2.1.2, 4, 5.2, 8

Examples: thawa-(i)n, thawa-(u)r, yupud-in, yupud-ur

22. VOWEL HARMONY

$$\begin{bmatrix} +syl \\ +hi \end{bmatrix} \quad \rightarrow \quad [\alpha \text{ bk}] / \# \begin{bmatrix} -syl \\ -ant \\ +cor \\ +distr \end{bmatrix} \quad \text{---} \quad C_0 + C_0 \quad \begin{bmatrix} +syl \\ \alpha \text{ bk} \end{bmatrix} \quad C_0 \#$$

References: 2.2.7

Examples: yid-in, yud-ad,

23. VOWEL LENGTHENING

$$V$$

$$1 \left\langle \begin{bmatrix} -stress \\ \alpha \text{ hi} \\ \beta \text{ bk} \end{bmatrix} \right\rangle_1 - \text{ng } 1 - \begin{matrix} C \\ [+nas] \end{matrix} - 1 \langle [+cons] \rangle_1$$

| | | | | |
|---|-------------|-----|-----|---------------|
| 1 | 2 | 3 | 4 | |
| $\left\{ \begin{array}{l} 1 \left\langle \begin{bmatrix} \alpha \text{ hi} \\ \beta \text{ bk} \end{bmatrix} \right\rangle_1 \\ \left[\begin{bmatrix} \alpha \text{ hi} \\ \beta \text{ bk} \end{bmatrix} \right] \left[\begin{bmatrix} \alpha \text{ hi} \\ \beta \text{ bk} \end{bmatrix} \right] \end{array} \right\}$ | \emptyset | 3 | 4 | \Rightarrow |

References: 2.6.5, 3.6.3, 4(esp. 4.3.1), 9.3

Examples: maanangan; wirnin; waa, waang-kur, wanginy-med;
ngithaan, ngithanthar

Can apply iteratively

Counterbleeds: Non-Apical Consonant Truncation, Medial Non-
Apical Consonant Deletion.

24. VOWEL LOWERING AND BACKING

$$v \rightarrow \left[\begin{array}{c} a \langle \{hi\} \rangle_a \\ b \langle \{bk\} \rangle_b \end{array} \right] / \quad b \langle \begin{array}{c} c \\ -ant \\ +distr \end{array} \rangle_b \text{ --- } a \langle \{ \# \} \rangle_a$$

References: 2.1, 2.2.2, 3.4.1,

Examples: nguka, nguku-n; pulja, pulji-n; paya, payi-n;
warnawu-j-ad

CHAPTER ELEVEN

GRAMMATICAL RELATIONS

11.1 Central and overlay grammatical relations

11.2 Transitions

11.3 Laws and sanctions

11.4 Some tests for termhood in Lardil

11.5 Early relational grammar

11.6 Footnotes

This study of Lardil syntax is expressed, for the most part, in the framework associated with the theory of Relational Grammar, which is being developed by David M. Perlmutter and Paul M. Postal (forthcoming).¹ Sections 11.1-4 sketch a very recent version of that theory, while an earlier, transitional phase is outlined in section 11.5. Much of this thesis reflects the transitional variant of the framework.

11.1 Central and overlay grammatical relations

The fundamental idea of a relational framework is that each sentence has paired with it a network of grammatical relations. Each such relationship is borne by some dependent with respect to a governor.

The area of relations of nominal dependent to verb governor has been the best explored so far in this framework.² Such relationships are of two major types, the central and the overlay relations. Central grammatical relations are further divided into pure and impure. The pure grammatical relations include the term grammatical relations (or, simply, the terms). These are 1. subject, 2. direct object, and 3. indirect object (plus

chomeur and dead dependents, which are taken up later).

In the Lardil sentence (1a) and the English sentence (1b), the verbs yalali 'laugh', laugh govern the subjects pidngen 'woman', woman respectively. (For immediate purposes, I ignore the role of the formatives kun 'Eventive', the 'Determiner', and -ed 'Past Tense'. They are taken up briefly in 12.3.)

1.a Pidngen yalali kun.

1 laugh

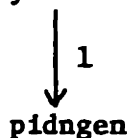
'(The) woman laughed', '(the) woman is laughing'.

1.b The woman laughed.

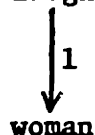
1 V

The notion of grammatical relation is a primitive in the framework: diagrams like 2a,b display the structure of sentences 1a,b in terms of the networks of grammatical relations.

2.a yalali



2.b laugh



The pure grammatical relations do not stand in a constant one-to-one relation with semantic relations. While the dependent functioning as semantic agent is assigned subjecthood for verbs like yalali, laugh (1), as well as for other action verbs like netha 'hit, kill', kill (3), for other verbs the subject is the experiencer, e.g. for perception verbs like kudi 'see', see (4), or some other semantic dependent.

3.a Pidngen netha kun thawa.

1 kill 2/AC

'The woman killed a rat.'

3.b The woman killed a rat.

1 V 2

4.a Pidngen kudi kuu thawan.

1 see 2/AC

'The woman saw, sees a rat.'

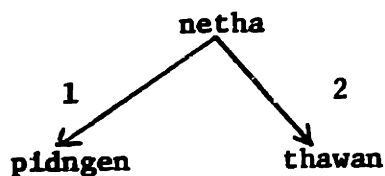
4.b The woman saw a rat.

1 V 2

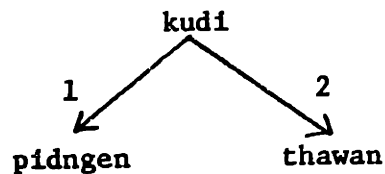
If the notion of subject lacks a semantic unity, it nevertheless has purely syntactic consequences. In English, the subject immediately precedes the verb and the verb agrees in number with the subject, and so on. There are in Lardil, and in fact in every human language, similar tests for termhood which follow from the general laws of Relational Grammar. (The tests for Lardil suggested briefly in this section are elaborated and modified in section 12.4.)

The second term, direct object, is exemplified by the nominals thawan 'rat/Accusative', rat in (3-4). Again, the semantic function is not wholly uniform: for action verbs like netha, hit, the direct object is the entity most affected by the activity; for verbs of perception, as kudi, see, the direct object is the entity perceived. The sentences above illustrate some constant syntactic properties of direct object: in both languages, this term follows the verb; and, in Lardil, a direct object is assigned the Accusative case. The networks in 5 display the grammatical relations for sentences 3a,4a.

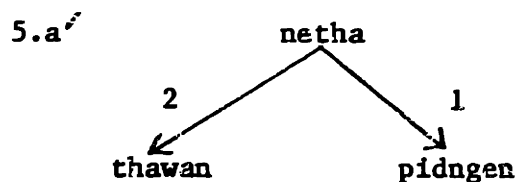
5.a=3.a



5.b=4.a



It might be thought that relational networks need to be supplemented with some sort of diagram, like a phrase-marker of the kind found in transformational grammar, to provide information about word order and the like. But this is not necessary. We can read word order directly off a network, given quite general (but language particular) linearization principles, e.g. for Lardil, that word order is: 1 V 2. The particular order of the dependents in a network do not even have any significance for word order. For example, 5.a' is completely equivalent to 5.a. Any reference to grammatical relations, including the linearization principles, will treat 5.a and 5.a' identically.



The third term, indirect object, is exemplified by the nominals maanangan 'child/Accusative', child in 6.a,b. The semantic role of each of these indirect objects is that of recipient. (The governing verb of 6.a is wutha 'give'; the direct object is wirniin 'food/Accusative'.)

6.a Pidngen wutha kun wirniin maanangan.

1 give 2/AC 3/AC

'The woman gave food to the child.

1 V 2 3

Pure terms are uniform in their syntactic properties, but they are diverse in semantic relations, depending on the governing verb. Impure terms, on the other hand, are tied directly to semantic relations. Impure terms include location 7, instrument 8, time, benefactive, and

many others.

7. Pidngen kudi kun parnjiparnjin wike.

1 see 2/AC shade/LC

'The woman saw a hat in the shade.'

1 2

8. Mangarta netha kun thawar parngar.

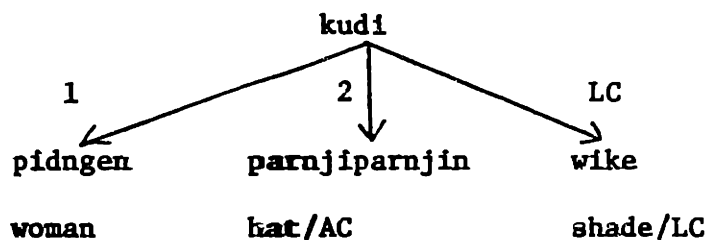
1 hit/kill 2/AC stone/IN

'The child hit/~~killed~~ a rat with a stone.'

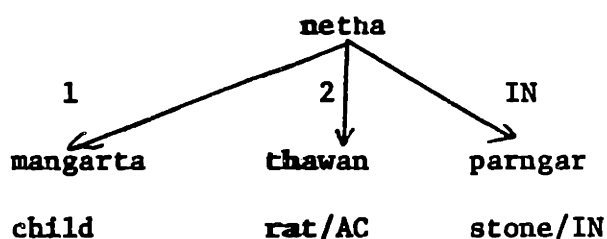
1 2

Sentences 7, 8 have the networks of grammatical relations shown in 9a, b.

9.a



9.b



An alternative way to display grammatical relations is in a matrix. For the very simple examples we have examined so far, a matrix contains only one row, e.g. the network 9.a is equivalent to the matrix 10.

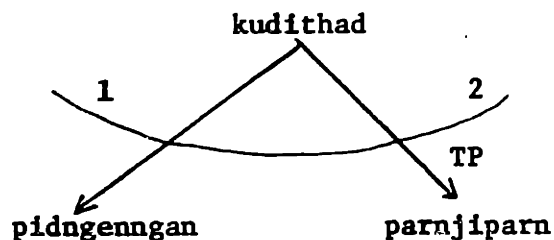
10. governor: kudi

| pidngen | parnjiparnjin | wike |
|---------|---------------|------|
| 1 | 2 | LC |

TP/2 1/GN see/NF

TP/2 1

12. a



| pidngenngan | parnjiparn | |
|-------------|------------|-----------|
| 1 | 2 | (central) |
| | TP | (overlay) |

Additional overlays include Q', 13.a; DS, dislocated nominal, 13.b; RL, relativized nominal (not illustrated here); and Overweight (complex nominal, possibly not found in Lardil).

13.a Ngaju-thungal pidngen kudi kun?

Q'/2 1 see

'What-thing did the woman see?

Q'/2 1

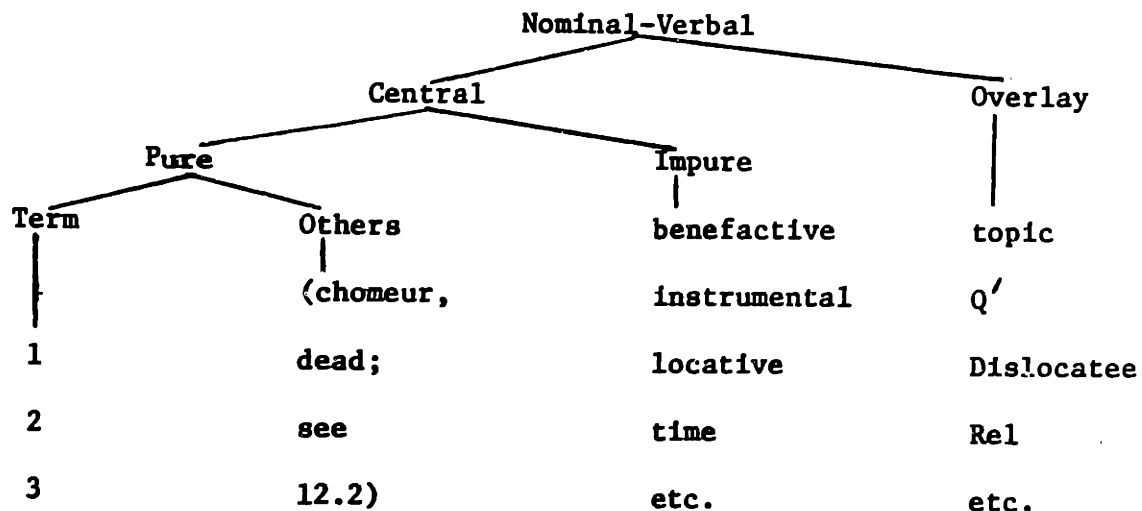
13.b Parnjiparn, pidngen kudi kun (parnjiparnjin).

DS/2 1 see 2/AC

'The hat, the woman saw (it).'

DS/2 1

In summary, a sentence has a network of grammatical relations, these latter of several types. There are the kinds mentioned in footnote 2, and nominal-verbal grammatical relations, which divide up as follows:



All relations other than the three terms are non-terms.

11.2 Transitions

A matrix with two or more rows representing central grammatical relations are possible, due to the existence of what are called transitions. For example, consider sentence 14, which is the passive corresponding to 3.a, repeated below.

3.a Pidngen netha kun thawa.

1 kill 2/AC

'The woman killed a rat.'

1 2

14. Thawa neyi kun pidngenin.

1 kill/R C/AC

'The rat was killed by a woman.'

1 C

The initial direct object, thawa 'rat', has assumed the relation of subject in 14. The initial subject has ceased to bear a term relation and has become what is called a chomeur in Relational Grammar. The general law creating chomeurs is 15. (Some morphological statements must also be made: the chomeur case in this instance is the Accusative; the verb registers the passive by taking -yi).

15. Relational Annihilation Law

When some nominal A assumes the grammatical relation previously borne by a term B, then B ceases to be a term, and becomes a chomeur.

(Perlmutter and Postal)

Expressed in a matrix, the transition in grammatical relations, 2→1, emerges clearly. While 16.a is the matrix for 3.a, the two-row matrix 16.b is that of 14. (In all these diagrams, I show the ultimate morphological form of each word. Precise statements about these must of course be made: see section 11.3.)

16.a governor: netha

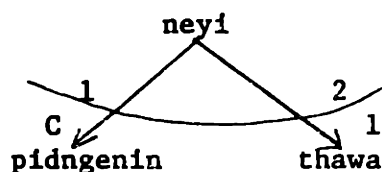
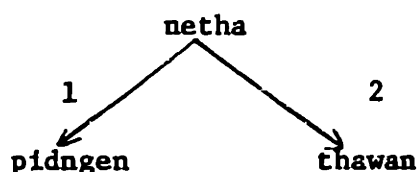
| pidngen | thawan |
|---------|--------|
| 1 | 2 |

16.b governor: ney1

| pidngenin | thawa |
|-----------|-------|
| 1 | 2 |
| C | 1 |

Equivalent to the above matrices are the networks below.

17.a



Although the chomeur in 14, pidngenin (woman/Accusative) 'by the woman', might look like a direct object like thawan (rat/Accusative) in 3.a, it can be proven that these two nominals bear different grammatical relations. There is a language particular constraint in Lardil to the effect that a term can bear the topic overlay but a non-term cannot. For example, it has been shown that the direct object, as parnjiparnjin 'hat/Accusative' in 7, can bear the overlay Topic, as in 11. But the Locative nominal of 7, wike 'shade/Locative' cannot be Topic:

18. *Tiin wika pidngenngan kudithad kun parnjiparnjingad.

TP(shade) 1/GN V/NF 2/NF

(lit. 'This shade (is where) the woman saw the hat.')

TP

1

2

Now, the direct object of the active sentence 3.a can be Topic, as in 19.a, but when we attempt to add this overlay relation to the chomeur of 14, then an ungrammatical sentence results, *19.b.

19.a Tiin thawa pidngenngan nethad kun.

TP/2 I/GN V/NF

'This rat (is the one) the woman killed.'

TP/2

1

19.b *Tiin pidngen thawakan neyithad kun.

TP/C 1/GN V/R/NF

(lit. 'This woman (is the one) the rat was killed by.')

C

1

It has now been seen that every dependent bears one, or more, central relation, and possibly also an overlay relation. The relation borne by a dependent in the first row of the matrix is called the initial relation; the last central relation borne by a dependent with respect to a given governor is a canonical relation. So from the matrices 16a,b, we can establish the following relations for the nominals of 3.a, 14:

In 3.a, pidngen is both initial and canonical subject of netha, and thawan is both initial and canonical direct object of netha. In 14, pidngenin is the initial subject and canonical chomeur of neyi, and thawa is the initial direct object and canonical subject of neyi.

A further kind of central relation, the classic, must also be distinguished. In sentence 20 below, the nominal pidngenin 'woman/

Accusative is the initial and canonical subject of the downstairs verb nejid 'kill/Infinitive', but it is also the canonical direct object of the upstairs verb kudi 'see', having been raised into that position from the downstairs clause.

20. Mangarta kudi kun pidngenin, nejid kun thawur.

1 see 2/AC kill/INF 2/INF

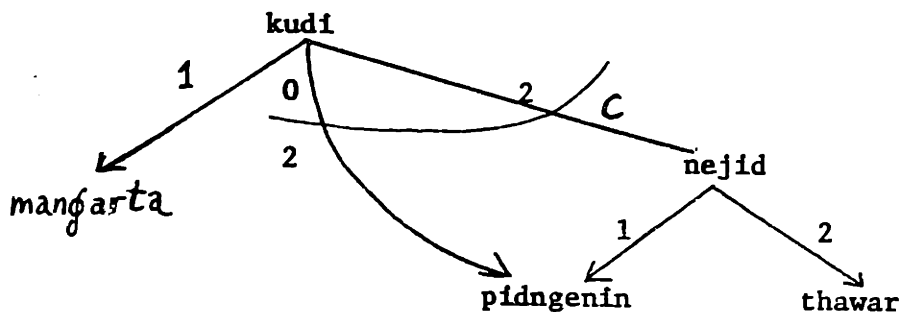
'The child saw the woman kill a rat.'

1 2 2

So, the nominal pidngenin in 20 is canonical direct object of both kudi and nejid. The two canonical relationships are distinguished, though, by rules such as those assigning inflectional suffixes to nominals. The very last canonical relationship is the crucial one here: therefore this one is defined as the classic relation. Thus, pidngenin is the initial and canonical subject of nejid, and the canonical and classic direct object of kudi, in 20. This nominal bears no initial relation to kudi and no classic relation to nejid.

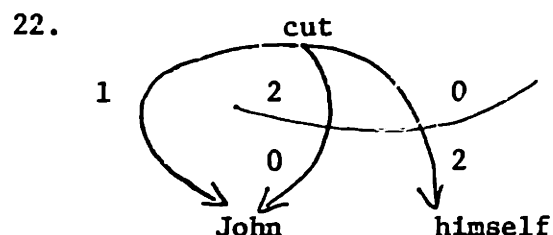
Network 21 shows all the relations for the nominals in 20. The raised nominal pidngenin 'woman/AC' is attached both to the governors nejid and kudi. The 0 shows that pidngenin bears no initial relation to kudi; the C shows that nejid becomes a chomeur, as an automatic consequence of RAL(IS).

21.



The network 21 can be represented in matrix form: one matrix is needed for each of the two governors.

Coreferential nominals can result from doubly attached initial dependents. For example, the English reflexive sentence John cut himself has the network below. The nominal John bears both initial subject and initial direct object relations.



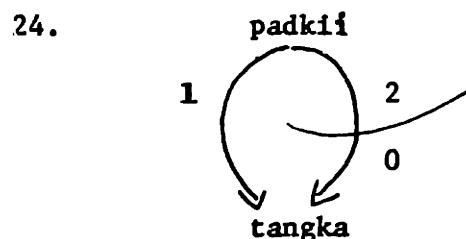
There exist a variety of ways that doubly attached initial dependents can be manifested: in the particular example used here, the English reflexive, a reflexive pronoun himself comes in to take over the lower of the two grammatical relations. In the corresponding Lardil sentence, the direct object relation is simply zeroed out: (there is also a morphological affect on the verb, ignored here).

23. Tangka padkii kun.

man chop/R

'The man chopped himself.'

Hence the Lardil reflexive has this network:



11.3 Laws and sanctions

Any scientific investigation adopts a theoretical framework, with a particular conception of the subject matter and certain basic notions. The dispute that, say Hockett (1967) has had with many others such as Chomsky (1957, 1965) can be viewed as a disagreement about appropriate frameworks for the insightful investigation of language. Beyond this level of argumentation, though, it has been recognized that constraints must be imposed on the operation of any framework (cf. Chomsky 1973).

So, given the relational framework, an extremely important task is to build a time theory within it, i.e. a set of constraints which predict the limits of variability expressable in that framework.³

The theory of Relational Grammar imposes constraints in several ways. Every transition in a matrix (or network) has to be sanctioned for the sentence to be well-formed. There are both universal and language-particular sanctions. For example, the sanction (or rule) advancing direct object to subject in passives is permitted by general universals allowing dependents to advance (but not retreat apart from the special case of chomeur-creation) on the grammatical hierarchy:

1. subject
2. direct object
3. indirect object

Non-terms

But the advancement rule itself, $2 \rightarrow 1$, is language particular, in that some languages such as Lardil and English have it, but others do not. A further aspect of the passive in Lardil and English is universal:

the demotion of the initial subject to chomeur in such a sentence is a consequence of the perfectly general Relational Annihilation Law cited earlier 18.

The theory of Relational Grammar contains many other such universal constraints or Laws. For example, advancements on the grammatical hierarchy are permitted to one of the term relations only. Rule interaction is restricted by the Advancee Tenure Law. (This Law and all others cited in this chapter are due to Perlmutter and Postal.)

25. Advancee Tenure Law

No nominal that is advanced can subsequently become a chomeur.

There are also principles governing case assignment, such as the following:

26. Chomeur Marking Principle

If chomeurs are not specially marked, then a chomeur undergoes the same case marking as for the relation borne immediately prior to becoming a chomeur.

There are several classes of sanctions on transitions among central grammatical relations, including Advancements, Ascensions, Insertions, and Unions.

12.3.1 An advancement is a transition, from a term or non-term relation, to a (higher) term relation, borne with respect to the same governor. The Passive is the advancement $2 \rightarrow 1$. So-called Dative Movement is the advancement $3 \rightarrow 2$. Non-terms, including Benefactive, Locative, Time, can advance to termhood. For example, with a restricted class of verbs in English, Locative $\rightarrow 1$ is permitted:

27.a They slept uneasily in Beirut that night.

27.b Beirut slept uneasily that night.

The conceptual opposite of an advancement, i.e. a demotion down the hierarchy of grammatical relations, is restricted only to the results of RAL(15) by two laws.

28. Motivated Chomage Law

Chomeurs exist only as a consequence of the Relational Annihilation Law.

29. No Retreats Law

No dependent can retreat down the hierarchy of grammatical relations.

12.3.2 An ascension is a transition from a relation borne to a downstairs governor, to a term relation to an upstairs governor; the downstairs governor must itself be a dependent of the upstairs governor. Subject to Object Raising, already illustrated for Lardil, is an ascension.

The nominal which ascends is the ascendee; the downstairs governor of the ascendee is the host. Both clausal ascensions (i.e. with verb hosts) and non-clausal ones (nominal hosts) are permitted. Clausal ascensions include Subject to Object Raising; Subject to Subject Raising; and Object to Subject Raising (Tough Movement). Non-clausal ascensions include Quantifier Float, Comitative Float (Conjunct Movement), Possessor Ascension 30, and a great many others.

30.a The thug kicked Bill's stomach.

30.b The thug kicked Bill in the stomach.

2

C

Two major laws concerning ascensions are the Relation Succession Law (Postal 1974) and the Host Limitation Law.

31. Relational Succession Law

An ascendeo assumes the grammatical relation of the host.

32. Host Limitation Law

Only terms can host ascensions (i.e. an ascension is permitted only out of a host that is itself a term).

12.3.3 An insertion occurs when a dummy nominal, i.e. one which plays no semantic or referential role, assumes termhood. English there-Insertion, in which the dummy pronoun there replaces a subject, is an example. Several laws constrain insertions.

33. Nuclear Dummy Law

A dummy can be inserted only as a nuclear term, i.e. as either subject or direct object.

34. Dummy Successor Law

An inserted dummy must take on a grammatical relation previously borne by some dependent.

35. Dummy Tenure Law

A dummy cannot be made a chomeur.

12.3.4 A union involves all the dependents of a downstairs governor becoming dependents of the upstairs governor, in a specified way. For example, in Possessive Union, the possessor of a nominal becomes the

indirect object of the verb governing the possessed nominal, as in¹⁹⁴ Spanish. In 36, the nominal me 'to me' is the initial possessor of the nominal uñas, 'nails', but it is the classic indirect object of cortó 'cut'.

36. María me cortó las uñas.

1 3 V 2

'María cut my nails.' (lit. 'María cut the nails to me.')

1 3 2 1 2 3

In Causative Clause Union, the upstairs governor is a verb of causation, while the downstairs governor is another verb. If there is a downstairs direct object, it becomes the upstairs direct object, and the downstairs subject becomes the upstairs indirect object, as in French:

37. Louis a fait boire du vin à Marie.

1 made drink 2 3

'Louis made Marie drink wine.'

1 3 2

But if there is no downstairs direct object, then it is the downstairs subject that becomes the upstairs direct object:

38. Louis a fait pleurer Marie.

1 made cry 2

'Louis made Marie cry.'

1 2

The downstairs verb is the initial direct object in this construction; in a clause union, it loses its termhood and becomes a dead dependent. In French, the dead verb follows right after the governing one;

in Lardil 39, the dead verb incorporates into the causative verb.

39. Tangka rij-penngge kun pidngen.

1 cry/make 2

'The man made the woman cry.'

1 2

11.4 Some tests for termhood in Lardil

It is possible to determine the grammatical relation of a given nominal by its behaviour with respect to certain rules.

11.4.1 Classic terms and Topics

It has already been suggested that there is a diagnostic for termhood in Lardil: namely, that only a term can bear the overlay relation Topic. This statement must be made more precise: only a classic term can be a Topic. The necessity for this qualification is apparent from the earlier sentences 17, since the chomeur that cannot be Topic, in 17.b, is an initial term, but not a classic one, while the perfectly acceptable Topic of 17.a is a classic term (as well as an initial one).

11.4.2 Classic terms and relativized nominals

Only a classic term can bear the overlay relation, Relativized nominal. In a postposed relative clause, the relativized nominal may be at the end, as in 40, or it may delete.

40. Mangarta wungi kun tiinin wangalkinin, ngithun kuparithad kun wungal.

1 steal 2/AC 1/GN make/NF RL/2

1 2 1 2 3

11.4.5 Direct object and passive

The major test for a direct object is its ability to advance to subject by the Passive, as already illustrated.

11.4.6 Subjects and imperatives

Imperative sentences are those which function as direct commands. Some examples are presented in 44 below. The verb in an imperative is not inflected overtly for any tense-mood, and the direct object, if it is third person, is uninflected for any case; a first person direct object takes the accusative. What is of central concern here is the nature of the subject, which may be optionally omitted, as the parentheses in 44 indicate. In each sentence in 44, the subject includes in its referent the listener(s), i.e., the subject is always second person (including the so-called "first person inclusive").

44.a Nyingki wungi tiin yadaman!

20 steal/V 2

'Steal this horse!'

44.b Ngakudi wungi tiin yadaman.

(12H)

'Let's (you and me) steal this horse.'

44.c Kidi punpe karnsjin.

22H V/shoot 2

'You two shoot the wallaby!'

44.d *Ngata wungi tiin yadaman.

(13H)

44.f *Niya punpe karnjin (he...).

30

Thus there is a constraint on imperative sentences, requiring a second person subject (including 'first' person inclusives).

11.4.7 Canonical Subjects and raising

So far as is known, in Lardil only a canonical subject can undergo a clausal ascension. In 45, either the initial subject a or initial direct object b may be the canonical subject.

45.a Yadaman jempekira kun niween.

1 kick 2/AC

'The horse kicked him.'

1 2

45.b Niya jempekiraa kun yadamanin.

1 kick/R C/AC

'He was kicked by the horse.'

1 C

The canonical subjects of 45 undergo Subject to Object Raising in 46.

46.a Ngata kudi kun yadamanin, jempekirajid kun niwenthar.

1 see 2/AC kick/INF 2/INF

'I saw the horse, kick him.'

1 2 2

1 see 2/AC kick/R/INF C/INF

'I saw him, be kicked by a horse.'

1 2 C

11.5 Early relational grammar

In the framework in which this thesis was written, now referred to as Early Relational Grammar (ERG), certain aspects of the framework had not been as fully developed as at present. As a result, I fell back (as have many other writers) on the concepts of a more familiar framework, specifically Transformational-Generative Grammar, as practiced by my teachers in that framework and typified by Burt (1971) and many others.

This has resulted in my talking about 'derivations' from 'initial structures', the latter referring to a display of the initial relations, while a 'derivation' is a way of showing the matrix of relations. The successive cells in the columns of a matrix are shown in successive lines of the 'derivation', connected by arrows. Moreover, ERG divided rules into 'cyclic' and 'postcyclic'. In this conception, the transitions between central grammatical relations are cyclic, while other rules are postcyclic. Because of its derivational nature, ERG had cycle-final linearization principles and then postcyclic movement rules to put overlay nominals in their correct positions. It can be seen that ERG is really a transitional approach blending Relational Grammar and Transformational-Generative Grammar.

In general, it should be possible to interpret the ERG framework that I have used. Most divergencies from contemporary Relational

Grammar are, perhaps, notational. Coreference is described by means²⁰⁰ of shared referential indices, rather than doubly attached dependents. Instead of the relation zero, 0, I use deletion rules. However, the distinctions between canonical and classic terms is not made carefully or consistently in the present work.

11.5 Footnotes

1. When I was writing the first draft of this thesis, my knowledge of Relational Grammar stemmed from talks by Kenneth L. Hale in Canberra, 1974; and by David M. Perlmutter, in Cambridge, Mass., 1974; Calgary, 1975; and Edmonton, 1975. This approach to syntax made so much sense to me that I extrapolated from those few stimulating lecture hours, and revised the prior draft beyond recognition. In the meantime, Relational Grammar itself was extended and modified greatly. In this final version, I have made various attempts to modify the material in the direction of current RG theory, but some inconsistencies remain. I have made my modifications in the light of lectures by David M. Perlmutter at MIT in early 1976 (of which I attended one in March, and borrowed notes for the rest), a paper he delivered in Quebec City, May 1976; and as well numerous discussions I had with him during May and June, 1976, in Cambridge and Lincoln, Mass.

2. The relationships between certain types of expressions and the rest of the sentence have not been fully worked out, and no particular claims have yet been argued for in Relational Grammar, although a number of ideas have been considered.

Nominals have various associated expressions: binding elements such as quantifiers and determiners; modifying elements such as attributive adjectives and relative clauses; possessors; and flags, case categories. Where useful, I indicate these relations in the sublinear analysis (abbreviations B, M, P, and FL). But by and large, they play little role in the aspects of syntax under study in this thesis.

Categories such as tense and negation are possibly superordinate predicates.

It appears that, in general a governor and its dependents form a constituent, for example, a verb and its dependents form a clause. But this is not always so: for example, Lardil relative clauses do not normally form a constituent with the antecedent.

3. David M. Perlmutter has suggested the importance of the distinction between a theoretical framework and a theory. I have elaborated this idea here in my own way.

Relational frameworks have been developed many times in the history of linguistic investigation. The antiquity of the terms subject and object is evidence of this. More recent and elaborated relational frameworks have been proposed by Jespersen (1969) and Tesnière (1965). Current research in relational frameworks includes that by the structural-typological school of Leningrad (Kholodovich 1969, 1974) and several workers represented in Li (1976) and references cited there. None of these seem to qualify as a theory of Relational Grammar. The work of D.M. Perlmutter and P.M. Postal does constitute such a theory by

4. Perlmutter has provided an argument along the following lines for this rule. The subject Beirut in the second sentence can't be considered a metaphor for the inhabitants of Beirut. Suppose the whole city were evacuated to Tripoli. Then it would still be ungrammatical to say i.

i. *Beirut slept uneasily in Tripoli that night.

But this parallels exactly the restriction barring ii.

ii. *They slept uneasily in Beirut in Tripoli that night.

VERB, NOMINAL, AND TENSE DELETION

12.1 Verbless clauses

12.2 Pronominalization and Equi

12.4 Unmarked Tense Deletion

12.5 Footnotes

There are sentences in Lardil which lack a verb, or a subject or other expected nominal, or overt tense. The purpose of this chapter is to establish the conditions under which these portions of a clause may be zeroed out.

12.1 Verbless clauses

The sentence types studied so far have all contained overt verbs. There also exist surface sentences in which there is no verb. These are the basic subject matter of this section. My claim is that they do contain a verb in initial structure, specifically kunaa 'be, sit'. Sections 12.1.1-5 describe different types of verbless surface clauses. In subsection 12.1.6 the arguments for an underlying verb kunaa are presented, the conditions under which kunaa can be deleted are summarized.

12.1.1 Predicate nominals

The sentences below contain predicates in which the assertion centres on the noun 1 or an adjective 2 which is in the nominative case.

1.a Tiinta ngithun thapu.

(this man my older-brother)

'This man is my older brother.'

b Tiinta wernekepen.

(this man hunter)

'This man is a hunter.'

c Ngawa tangka-peen.

(dog man-biter)

'The dog is a man-biter.'

d Rulthupu pulmpa-jiin

(turkey grasshopper eater)

'The turkey is a grasshopper-eater.'

2.a Tiinta mutha.

(this man big)

'This man is big.'

b Kiin maarn wudwa.

(that spear sharp)

'That spear is sharp.'

c Tupalan pakin.

(road wide)

'The road is wide.'

In sentences like those above, the predicate attributes to the entity designated by the subject, membership in the class of entities designated by the predicate nominal. Predicate nominals which consist of an adjective may also govern a nominal dependent in the accusative case, e.g. 3. This is a comparative construction: the property designated by the adjective is attributable to both the subject and the accusative dependent, but the assertion of this sentence type is that the subject

3.a Niya mutha ngithaan.

(he big me/AC)

'He is bigger than me.'

3.b Niya jirtangkul ngithaan.

(he heavy me/AC)

'He is heavier than me.'

3.c Niya karnan ngimpeen.

(he tall you/AC)

'He is taller than you.'

3.d Ngata palpal tiinin tangan.

(I light this/AC person/AC)

'I'm lighter than this person.'

12.1.2 Possessive expressions

The designation of possession in Lardil takes a variety of forms, some of which are described in this subsection, and others in the chapter on Possessor Ascension. The way of expressing possession with a nominal has already been implicitly introduced: the possessor is expressed by a dependent in the genitive case. For example, in sentence 4.a below, the object noun phrase contains the possessive expression ngithun 'my', which is the genitive case form of the first person singular pronoun. In sentence 4.a, the possessive phrase takes in addition to the genitive the accusative case, by concord with the noun that it modifies, ngawun (dog/AC), and so it has the form ngithunin (I/GN/AC) in the sentence. Sentences 4.b,c,d, are additional examples of

genitive possessive phrases. It can be seen that the notion of possession includes not only ownership or control of an animal 4.a or object 4.b, but also expression of the a part-whole relationship, including body parts 4.c, and the expression of kinship relations 4.a as well.

4.a Nyingki netha kun ngithunin ngawun.

I kill I/GN/AC 2/AC

'You killed my dog.'

1 2

4.b Klin mangarta ngithunad parnjiparnjingad mirnkemirnkethad tilanthaad.

TP/1 I/GN/NF 2/NF sit/NF before

'That child (is the one that) sat on my hat before.'

TP/1 2

4.c Ngithun marlta yuud kelee.

I/GN 1 cut/R

'My hand got cut.'

1

4.d Ngithun yaku wirima kun ngukun.

I/GN 1 bring 2/AC

'My sister brought some water.'

1 2

Returning now to the non-verbal predicate, it may consist of a genitive possessor alone, in which case it expresses the possessor of the subject, in the same broad sense of possession illustrated by 4.

5.a Tiin ngawa ngithun wungukan.

(this dog I/GN wife's-brother/GN)

'This dog is my wife's brother's.'

(Young-turtle there this/GN^Yperson/GN)

'The young turtle there belongs to this person.'

The genitive case marks the possessor when it is used in a possessive expression. A different inflectional category, the propriative, marks the entity which is possessed. For example, a non-verbal predicate may consist of a nominal in the propriative, in which case the subject is the possessor 6.a. The notion of possession with respect to the propriative is somewhat different from that associated with the genitive. Both genitive and propriative expressions may designate ownership 4.a,b; 6a,b but the propriative is apparently the appropriate form when ownership is irrelevant, and it is the idea of the presence of the item that is central, and it perhaps makes no sense to talk of 'ownership' at all, as in 6.c,d. Also, to identify the things that are present in a place, the propriative may be used, 6.c.

6.a Kara nyi menhadur?

Q 1 bait/PRP

'Do you have any bait?'

1

6.b Ngata puripuriwur.

1 gun/PRP

'I have a gun.'

1

6.c Nyadwen karta jangkur thungalur marlta.

our 1 some/PRP thing/PRP hand

'Our karta has something in his hand.'

1

1 anger/PRP

'He's angry.', lit. 'He has anger.'

1

6.e Tiin nyedwe ngukur.

1 water/PRP

'This place has water.', 'There's water in this place.'

1

Proprietives may also appear in other constructions, for example, in predicates which contain a verb, 7. They may also appear attributively 8, as is possible with genitive possessives, though not with inflected nominals in general, e.g. instrumentals or locatives.

7. Ngata ngilti kum thudungkar.

1 cough cold/PRP

'I'm coughing with a cold.'

8. Ngata janijani kum agukuru nyedwin.

1 seek water/PRP 2/AC

'I'm looking for a place with water.'

1

2

There exist inflected forms of nominals which are syntactically identical to the proprietive, but which express the lack of an item. That is, this category, the privative, is the negative of the proprietive; it may co-occur with the negative maltha 'not'.

9.a Niwenwed jawed nyedwe.

his/PRV foot/PRV place

'The area is devoid of his tracks.'

9.b Ngata maltha ngimpenwed rawed.

1 not your/PRV custom/PRV

'I lack your custom.' i.e., 'I am not like you.'

1

Possession, then, receives expression in two different non-verbal predicate types, the genitive and the proprietive, which designate the distinct but overlapping categories of possession. The genitive marks the possessor, the proprietive appears in verbal predicates as well. The proprietive has a distinctive negative counterpart, the privative.

12.1.3 Location, direction, and motion

The expression of place, as well as goal of motion, have both been touched upon in the previous sections in connection with transitive and intransitive verbs. Non-verbal predicates may designate location and direction, source, and goal of motion. A predicate nominal will then take the following inflectional categories: for location, the locative case 10; for source, the elative form 11; and for goal, the allative form 12. (The morphological shapes for these formatives has been spelled out in Chapter Ten.) None of these expressions may function attributively. Thus they differ syntactically and morphologically from the possessive predicate nominals. With expressions of location, it is possible to have a particle (e.g., nyidiri in 10) specifying the location more precisely. Such a particle is preposed or postposed to the locative expression.

10.a Thungal ngithunnganng e kuwuu.

1 my/LC eye/LC

'Something's in my eye.'

1

10.b Jika perte ture.

many 1 excrement/LC

'There's a lot of maggots in the excrement.'

1

10.c Karanng niya?

where/LC 1

'Where is he?'

1

10.d Jilka nyidiri kutuutukanng.

1 under billy-can/LC

'The pencil is under the billy-can.'

1

11. Riwn waangun kiinta, parngapudii kun.

east/EL come/EV 1 stone/EL

'He's coming from the east, from the stone.'

1

12.a Ngata kethadiyathur.

1 river/AL/F

'I'm going to the river.'

1

12.b Ngithanthaya tumuya.

me/AL back/AL

'Get on my back!'

The goal and source forms, but not the locative, have a verbal nature, e.g., they inflect for tense like a verb: the presence of the verbal conjugation marker -th, -i in tensed goal and source expressions is the most outstanding indication of this, e.g., kethad-iya-th-ur 'river/AL' 12. Moreover, goal and source forms take the Eventive enclitic kun, e.g. parnga-pudii kun 'stone-elat EV' 11; otherwise, this formative follows only words that are unquestionably verbs.

It seems reasonable, from these observations, to suppose that the goal and source formatives are underlyingly verbs. In that case, this is a superficially non-verbal predicate type which in fact contains a verb underlyingly.

The verbal nature of the goal and source expressions is further supported by the fact that there exist what are transitive forms of them, i.e., forms which take a direct object. The formatives involved are -pudi for source 13 and the dative -mari which is used for goal 14.

13. Wirima wangel parngapudi.

take 2 stone/EL

'Take the boomerang off the stone!'

2

14. Ngata milimathur tumpayiwur radwamarithur.

1 crush/F 2 pipe/AL/F

'I'll crush (the tobacco), and put the tobacco in the pipe.'

1

2

Direction can be expressed by predicate demonstratives. A special set of these refer to the compass directions, e.g. pata 'this-west' 15.

15. Ngithun mangarta pata.

my 1 west

'My son is there in the west.'

1

There exists the possibility that the semi-verbal goal and source expressions are always subordinate to a full verb of motion, the latter being deletable in certain circumstances. I'll take up this possibility in 12.1.5.

The directional determiners have special source or Elative forms, as illustrated in 16 below. Such sentences characteristically contain the demonstrative tiin 'this'.

16.a Tiin pathun ngithun wunga.

(this west/EL my wife's-brother)

'Here comes my wife's brother from the west.'

16.b Tiin rawun(ngan) ngithun wunga.

(this south/EL my wife's-brother)

'Here comes my son's wife's brother from the south.'

16.c Tiin riiwun ngithun wunga.

(this east/EL my wife's-brother)

'Here comes my son's wife's brother from the east.'

The directionals can function attributively as determiners 17.¹

17. Pata mangarta wungi kun ngimpenin wangalkin.

that/west 1 steal your/AC 2/AC

'That child to the west stole your boomerang.'

1

2

The predicate types that have been described in this section and which express location and motion are morphologically and syntactically diverse. Location can be expressed either by a predicate nominal in the locative, or by form designating a compass direction. Goal and source are expressed by a predicate noun phrase which takes an allative (goal) or elative (source) inflection. These expressions share certain properties with verbal predicates. Special elative forms for the directional determiners exist. Of all these location and motion expressions, only those consisting of a directional determiner are permitted attributively as well as predicatively.

12.1.4 Stance

All of the non-verbal predicates examined so far are essentially predicate nominals, being based on nouns, adjectives, or determiners. Most of these predicate nominals are tenseless, i.e., they may not be inflected for tense. There do exist two classes of predicates which are non-verbal, in the sense that they are not fully inflectable for tense, yet which are not clearly nominal in nature. One of these is the set of stance predicates, illustrated in 18.

- (18) a. Ngata thaltin. 'I'm standing.'
 b. Ngata karad. 'I'm sitting.'
 c. Ngithun kernte mangud. 'My wife is lying down.'

Stance predicates have only two morphological forms which function as predicates in themselves: the uninflected form, which is used in simple sentences for non-future time (18) and imperatives (19); and the future form, which may be used for future time in simple sentences (20).

It is interesting to observe that the future form resembles nominal inflection rather than verbal inflection, since there is no verbal conjugation marker present. The resemblance to a nominal paradigm is even greater when we dependent clauses of verbs that permit raising, such as the perception verbs. As shown in Chapter Eleven, when the downstairs subject undergoes raising to become object of the perception verb, the chomeur verb goes in the Infinitive, as do its remaining dependents. Now, the infinitive form of a verb is distinctive, but a nominal in the infinitive is morphologically identical to one in the future tense. A stance predicate has an infinitive form identical to the future, just like a noun (21). That is, stance predicates are like full verbs in appearing in both future and infinitive complements, but neutralize morphologically the future versus infinitive distinction like nouns.

(19) Nyingki thaltin.

(you stand)

'Stand!'

(20) Ngata karadur.

1 sit/F

'I'll sit.'

1

(21) Ngata kudi kun niween, thaltinkur.

1 see 2/AC stand/INF

'I saw him standing.'

1 2

12.1.5 Statives and inchoatives

Another class of predicate, the stative, may apparently take no

verbal inflection whatsoever, when functioning alone as the predicate of a simple sentence. Some examples are given in 22.

- (22) a. Ngata ngaalin. 'I'm thirsty.'
 b. Mangarta kapudjin. 'The child is hungry.'
 c. Ngithun kantha kalkan. 'My father is sick.'

The stative predicates have related forms (inchoatives) which indicate transition to the designated state. Inchoatives are regular intransitive verbs, of the -th conjugation, and inflect fully for tense and so on.

- (23) a. Ngata ngaali kun. 'I'm becoming thirsty.'
 b. Ngata ngaalithur. 'I'll become thirsty.'

12.1.6 The auxiliary kunaa

The non-verbal predicates examined in sub-sections 12.1.1-5 are partially or wholly lacking in independent tense forms, which are possible with verbal predicates: the future, non-future, and simultaneous. As a consequence, those predicates may not appear, as they stand, in some or all of the clause types which require an overt tense inflection: topic clauses, simple future sentences, complements of perception verbs (and most other verbs), conditional clauses, and so on. But if a proposition like that expressed by, say, 22b, 'the child is hungry', were absolutely blocked from appearing in such clauses, then a huge number of straightforward sentences, such as 'if the child is hungry, give him fish' would be impossible in Lardil. There does exist a way to construct clauses containing the non-verbal predicates which are inflectable for the full range of tenses: this is through the use of the verb

kunaa 'be'. For example, sentences 22b and 6b (repeated below) have the respective equivalents 24a, b in which kunaa appears.

22b. Mangarta kapudjin . 'The child is hungry.'

6b. Ngata puripuriwur. 'I have a gun.'

24 . a. Mangarta kapudjin kunaakun. (=22b)

b. Ngata puripuriwur kunaakun. (=6b)

The conditional clause is an example of a clause which requires a verb in the non-future tense. The verb kunaa is a regular verb which inflects for non-future: kunaathad . Thus a clause like 24a-but not 22b - can function as a conditional clause, if put into the non-future tense (24).

(24) Mangarta kapudjin kunaathad, wutha yaka.

1 hungry be/NF give 2

'If the child is hungry, give (him) fish.'

1

2

Suppose that the verb kunaa is present underlyingly in sentence types which are overtly verbless. That is, we will have underlying representations like those in 25 below for the sentences introduced in previous sections (I set aside, however, some sentence types from 12.1.3, and those of 12.1.4, for a moment.) It is interesting to observe that, while the sentences of 25 are somewhat rare as actual surface sentences, they nevertheless are grammatical as they stand.

(25) (i) Predicate nominals

a. Tinta ngithun thapu kunaa kun.

1 my older-brother be

'This man is my older brother.'

b. Tiinta mutha kunaa kun. 'This man is big.' (=2a)

I big be

(ii) Possessives

c. Ngata puripuriwur kunaa kun. 'I have a gun' (=6b)

1 gun/PRP be I

d. Ngata maltha ngimpenwed rawed kunaa kun. 'I lack your customs.' (=9b)

1 NG your/PRV custom/PRV be

(fii) Location

e. Karange kunaa kun niya? 'Where is he?' (=10c)

where/LC be 1 1

(iv) Statives

f. Ngata ngaalin kunaa kun. 'I am thirsty' 9=22a)

1 thirsty be 1

By deleting the verb kunaa when it is uninflected for tense, then verbless surface sentences are derived, such as 1a, 2a, 6b, 9b, 10c, 22a.

When the verb kunaa is inflected for tense, as in the non-future form of 24, kunaathar, then it is not deletable.

There is a certain semantic plausibility to this analysis, when we look at fully verbal predicates. For example, sentence (26) is usually taken as a momentaneous proposition, i.e., as referring to an event that happened in the past or has just now happened, but it could also have a durative (Or 'progressive' meaning. i.e., that the event was happening (for a time) or that it is now happening. This sentence 2b has the two readings which are

indicated. (The vagueness in tense is always present, as Lardil has the two-way tense distinction future versus non-future, a feature that is irrelevant here.)

(26) Ngajarta nyingki netha kun?

Q/2 1 hit

i. Who did you hit?

Q/2 1

ii. Who were you hitting?, Who are you hitting?

The predicates listed in (25) never have this kind of ambiguity: they are inherently durative. But sentence 26 (and in general any verbal predicate) can be disambiguated by the use of kunaa like an auxiliary. Such a sentence has only the durative reading:

(27) Ngajarta nyingki netha kunaa kun?

Q/2 1 hit be

'Who were/ are you hitting?'

Q/2 1

The ambiguity of (26) can be accounted for if we suppose that it has two underlying representations, one essentially like the surface structure (26) --this will have a momentaneous reading-- and the other the same as the underlying representation of (27)--which necessarily has a durative reading. To derive (26) instead of (27) from the underlying representation of the latter, the verb kunaa is deleted. As we have seen, this rule is needed anyway to account for verbless predicates.

Thus the rule of kunaa -deletion accounts for several facts about both surface verbless predicates and those with overt verbs:

(28) (i) (surface) verbless predicates are inherently durative

(because an underlying kunaa is obligatory here)

ii. verbless predicates require an inflected form of kunna whenever the construction calls for an inflected verb, as in conditional clauses (because kunaa does not delete unless it is uninflected).

iii. clauses with overt verbs are ambiguously momentaneous or durative in aspect (because kunaa has been deleted from one of two underlying representations for the same surface sentence).

An alternative to kunaa deletion is 'kunaa insertion', i.e., a rule to add kunaa to clauses which lack it but require it i.e. those whose overt tense is required. (Under this solution, then, kunaa is underlyingly absent in the places where it turns up in surface structure in 25.) The environment for kunaa insertion in verbless predicates is where there would otherwise be a stranded tense, as in conditional clauses requiring the non-future tense. But the environment in predicates with overt verbs is different: essentially, anywhere. This approach thus fails to provide a unified account for the distribution of kunaa. It also fails to predict that a predicate containing a verb but not containing kunaa is ambiguous between momentaneous and durative readings.

Another alternative is to have kunaa -insertion restricted to verbless predicates with a stranded tense, and to have an underlying kunaa in verb-containing predicates. The underlying kunaa is then subject to deletion, thus accounting for the cases of momentaneous/durative ambiguity. But this analysis is really a pointless one, because in effect it has two rules where one would do--namely the kunaa deletion rule of the first analysis.

Rather than consider any other alternatives at this point, I will assume the kunaa deletion approach, as initially outlined.

There are some indications that this analysis requires further study and possibly some modification. Other stance verbs besides kunaa 'sit' are used

as durative auxiliaries. (The total list of known stance verbs was presented 220
12.1.4. Their defective tense paradigms restrict the sentences they may
appear in, however:

29 Ngata wiithur karadur wangalkur. 'I'll be trimming the boomerang.'

1 trim/F sit/F 2/F I 2

I do not know whether the rule deleting kunaa should be extended to cover any stance verb. Recoverability of deletion would seem to indicate that only one designated stance verb should be deletable, but I lack further information to back this up. I will continue to refer to kunaa -deletion, but it should be kept in mind that the deletion may be somewhat more general.

Another question that arises is what the status of kunaa really is, underlying. I have stated already that I consider it to belong to the category Verb, but this implies that, in sentences with (another) overt verb, e.g. 27, there are two members of the category Verb present in a clause, a direct contradiction of the assumption that a clause contains a single governing verb. Two possible analyses of the underlying structure come to mind: (k) kunaa is really some kind of 'auxiliary' (ii) kunaa is a superordinate verb and the other verb, netha in (27), is a dependent of it. If kunaa is an 'auxiliary', then its ultimate status in the network of relations is still not clear, so that is not a satisfactory hypothesis to pursue. If kunaa constructions like (27) involve underlying complex sentences, then evidently subject to subject Raising applies. This possibility is examined in Chapter Eighteen.

12.2 Pronominalization and Equi

A nominal dependent may in fact be absent in surface structure. There are two rules which delete nominals involved in an anaphoric relation: already described to some extent Pronominalization and Equi. The differences between the two are reviewed at the end of this section.

Pronomilization is the marking of a nominal in some way to show that it is coreferential with a preceding or following nominal. Three ways are available, at least for animates:

- (i) destressing
- (ii) replacement
- (iii) deletion

12.2.1 Destressing

Destressing of a nominal (indicated here by a grave accent) is exemplified by (30): in (30a), tiinngan ngawukan 'by that dog' and ngawun 'dog' are coreferential, as the indices show; in (30b), wurtaljingad yakad 'fish flesh' and wurtal yaka 'fish flesh' are coreferential.

(30) a. Ngata mara peyithur tiinngan ngawukan_i ngata ratha/kun ngawun_i.

1 counterfactual bite/R/F C/GN 1 spear 2/AC

'I was going to be bitten by that dog_i, (so) I speared it_i'

1 C 1 2

b. Nyingki pudpudmarithad wurtaljingad yakad_i, wurtal yaka_i nethur.

1 ashes/put/NF 2/NF 1 burn

'If you put the fish flesh_i in the ashes, it_i will burn.'

1 2 1

12.2.2 Pronouns

Alternatively, the second of the coreferential nominals may appear in surface structure as a pronoun:

31 Ngithun medkakan_i thawun reneethad, niya_i medi tikulti.

my aunt/BN 1 blunt/INCHOATIVE/NF again sharpen

'When my aunt_i's digging-stick; gets blunt, she_i sharpens (it_i) again?'

12.2.3 Deletion

One of a pair of coreferential nominals may be absent in surface structure, as in (32) - (33) indicate the expected locations of the missing nominals.

32. a. Q: Ngajuwatha yalji kun nyingki tangan_i?

why jealous I

A: _____₁ ngithunad pidngenad kerntijithad.

1 my/NF 2/NF wife/call/NF

Q: 'Why are you jealous of the man?'

1

A: 'Because (he₁) sweettalked to my wife.'

1

2

b. Niya_i ngithunad pethad, ngata jempekirathur _____.

1 2/NF bite/NF 1 kick/F 2

'If he_i/she_i bites me, I'll kick (him_i/her_i.)

c. Ngata_i waangad kun, _____₁ yileyi kun yarpujin.

1 go/NF V 2/AC

'As I was going along, I_i feared a snake.'

1

1

2

d. Ngata kudithad kadamngad_i, ngata mirntinengkur _____₁.

I see/NF 2/NF 1 step/NG/F 2

'If I see a stonefish_i, I won't step on (it_i).'
1 2 1 2

33. _____₁ pened ngithunad, ngata nengkur kiinkur ngawur_i.

1 bite/NG 2/NF 1 kill/NG/F 2/F

'If (it_i) doesn't bite me, I won't kill that dog_i.'

1

2 1

2

In (32a), the subject of the second sentence is missing; we would expect tangka 'man' or niya 'he/she' here. In (32b) there is a direct object, niwenthar 'he/she', that would be expected in the second clause, but it is missing where indicated by the blank. In (32a), the pronoun ngata would be expected in the second clause as subject, but it is not there overtly. In each instance in (32), the missing nominal is coreferential with a nominal in the first clause or sentence, so I conclude that the missing nominals are deleted due to coreference. In (33), the first clause is missing its subject: we expect niya 'he/she' or (ki'in) ngawa '(that) dog' as subject. Here, the missing nominal is coreferential with a nominal in the second (main) clause. Again, I conclude the missing nominal has been deleted by pronominalization. There is not sufficient information available to establish when pronominalization may apply forward and when backward, although the above sentences are in conformity with the constraints as generally accepted for English pronominalization, and so when full data is available, no great surprises are anticipated.

All the above examples are clearly or coreferential nominals referring to animate beings. When we turn to examples of pronominalization of only the third alternative, deletion, is found, as in 34.

- (34) Nyingki werethad kiinad wangalkad₁, mara _____₁ terltethur tithur.
 1 throw/NF 2/NF counterfact₁ual break/F fall/F
 'If you threw that boomerang₁, (it₁) would break.'
 1 2 1

The missing subject of the second (main) clause of (34) is coreferential with kiinad wangalkad 'that boomerang' in the first clause.

A sentence like (35a) is optionally converted into the alternative surface structure. (35b). This is done by deleting a nominal target in the downstairs clause when it is coreferential with a nominal trigger in the upstairs clause.

35 a. Ngajarta kangka kun ngimpeen, nyingkɪ nethur ngawar?

(who tell you:AC you, hit:F dog:F)

'Who told you to hit the dog?'

b. Ngajarta kangka kun ngimpeen, nethuru ngawurr?

(who tell you:AC, hit:F dog:F)

(=a)

The choice of the trigger and of the target is restricted. Firstly, in the complement of a verb like kangka, the downstairs nominal that deletes is always the subject; any other nominal in the subordinate clause can delete, but only by pronominalization. This is proven by the fact that agreement in case with the trigger is restricted to those clauses in which the subject deletes, e.g., 35b.

Similarly, the trigger is restricted to being a term. In a dependent clause like in 22, and others discussed earlier, if it is the lowest ranking term that is the trigger.²

12.2.5 Pronominalization versus Equi

Pronominalization deletion and Equi differ in that:

- (i) Pronominalization operates forwards and backwards, including forward from a subordinate to a main clause. Equi in the available data for Lardil, only operates from a main clause to a following subordinate clause.
- (ii) The subordinate clause to which Equi-NP Deletion has applied will take the case category assigned to the superordinate controller. With pronominalization, no such agreement in case takes place. (See 12.2.6)
- (iii) Equi deletes only subjects, while pronominalization can delete a nominal seeming any grammatical relation.
- (iv) The trigger for Equi must be the lowest ranking term in the upstairs clause. The antecedent for pronominalization can be any nominal.
- (v) Equi seems to apply only to animates, but pronominalization applies to both animates and inanimates.

12.2.6 Equi and clause agreement

It has been proposed that a sentence like 36a is derived by Equi from the structure 36b.

1 tell say 3/AC 2/F/AC kill/F/AC

'I told him to kill the bullock.'

1 3 2

b (Ngata kangka kun niween₁, niya₁ pulakar nethur)

1 tell 2/AC 1 2/F kill/F

According to this proposal, the downstairs subject, niya 'he, she', is deleted due to coreference with the upstairs indirect object, niween 'him/her/AC'.

When Equi applies, the downstairs verb must agree in case with the upstairs trigger the deletion. In deleting the subordinate subject in 36, the downstairs verb takes the accusative case from the trigger niween. (After any of the formatives with alternants -wur, -kur, -(u)r, the accusative is /-u. See chapter eight.) Just as any tense category present spreads through to the dependents by concord, so does the introduces accusative become distributed.

In 37 a, b, c, the trigger is a direct or indirect object, and in 38, a subject.

37. a. Ngata kangkur niwenthur, pulakaru nethuru.

1 tell/F 3/F 2/F/AC kill/F/AC

'I'll tell him, to kill the bullock.'

1 3 2

b. Niya meralkupari kun ngithaan, wernengkuru wuthuru ngimpenthuru.

1 2 2/AC A 2/F/AC give/F/AC 3/F/AC

'He reminded me to give you food.'

1 2 3 2

c. Ngata werethur kiinkur tangkar, wuthuru ngukuru

1 send/F that/F/AC 2/F give/F/AC 2/F/AC
 ngimperkuru yadamankuru.
 your/F/AC 3/F/AC

'I'll send that man to give your horse water.'

1 2 3 2

38. a. Ngata yuud wudithur, wanjithur tiinkur pangarankur.

1 try/F climb/F this/F 2/F

'I'll try to climb this cliff.'

1 2/F

The above sentences demonstrate the obligatory agreement of the downstairs with the upstairs trigger in case. In 36a and 37b, the triggers are niween 'him/AC' and ngithaan 'me/AC', resp., and the subordinate clauses of both display the accusative -u. But the controller in 38 is the superordinate subject ngata 'I'—because this is in the nominative (i.e., unmarked) case, no overt inflection turns up in the subordinate clause of that sentence.

The trigger will of course have its accusative case replaced by a tense when the upstairs verb is overtly tensed, as in 37a niwenthar 'him/F' and 37c tangkar 'man/F'. But even in these sentences, the subordinate clause takes the formative -u.

One rule eliminates the Agreement aspect of Equi. In an imperative clause, the verb is uninflected for tense-mood, and the dependents that would otherwise be inflected for the accusative have that case category deleted: cf. the declarative and imperative pair 39.

41. Ngata wirimathur ngithunkur kerntiwur- kampinkur

1 take/F my/F 2(wife/F-child/F)

tiin-pudithur warkad-pudithur nyerwi-pudithur

this/take/F bad/take/F place/take/F

'I will take my wife and child away from this bad place.'

1

If the phrase tiin-pudithur warkad-pudithur nydewi-pudithur

is a dependent clause (with dependent verb-pudi 'take away (from)'), then the surface absence of its subject could be due to Equi.

However, some means is needed to account for the deletion of the downstairs direct object by virtue of its identity with the higher direct object. At this point, I simply lack the data to demonstrate whether these two deletions are by Equi, or Pronominalization, or whether neither of these is sufficient. (see Chapter 20 for more on incorporating verbs like -pudi .)

An additional example is 42, in which the upstairs subject ngata 'I' serves as Equi trigger for deleting the subject of -mari 'put'.

42 Ngata kidkalathur wangalkur parnga-marthur.

1 place/F 2/F stone/put/F

'I will place the boomerang on the stone'

12.2.7 Raising versus Equi

Equi is optional. The following pairs of sentences demonstrate this: if a subordinate subject is coreferential with an upstairs term, deletion of the subordinate subject is possible, but not obligatory. Thus 40a has the equivalent 43, where Equi hasn't applied. (Cf. also 44.a, b) When Equi isn't involved in a derivation, then neither is Agreement.

43. Niya kangka kun ngithaan, ngata pulethur yakur. (=40a)

1 V 3/AC 1 catch/F 2/F

'He told me, for me to catch the fish.'

1 3 1 2

44.a Ngata kinekinethur niwenthur, mathuru nyithuru. (=a)

1 order/FUT 3/F get/F/AC·2/F/AC

'I ordered him to get firewood.'

1 3 2

There are three differences, then, between Raising and Equi.

i. It has been seen in Chapter Eleven that in Raising structures,

the downstairs subject is never present, as distinct from ²³¹the upstairs direct or indirect object. But in Equi structures, as we have just seen, both these can turn up in surface structure.

- ii. The subordinate clause in a Raising structure can be passivized, creating a paraphrase. But no instance of a passive subordinate clause is known in Equi structures.
- iii. The downstairs clause must take on the accusative case (by Agreement with the Equi trigger) whenever Equi applies, but this introduction of the accusative is impossible in Raising structures.

12.4 Unmarked Tense Deletion

Clauses in Lardil can contain overt verbal inflection for tense--future -ur, non-future -ad-; infinitive -id; imperative -d; or admonitive mood -med. Clauses which lack overt verbal inflection of this kind fall semantically into two classes--certain Imperatives and Non-Futures. I suggest in Chapter Fourteen that the former are derived by deletion of the Imperative formative -d. In this section, I support the hypothesis that the Non-Future tense is also subject to a deletion rule.

In this approach, the paraphrase relationship between the pairs 45a,b is accounted for by deriving them from the same initial structure.

45.a Ngata ratha kun karnjinin.

spear 2/AC

'I speared a wallaby.'

1 2

45.b Ngata rathad kun karnjinad.

1 spear/NF 2/NF

The Non-Future tense is the unmarked one in the opposition between Non-Future and Future, in that present time is represented by the Non-Future. So it makes sense that this is the tense category that deletes.

Sentence 45.a is derived by the application of Unmarked Tense Deletion, while 45.b does not have this rule applying. However, the undeleted tense distributes by concord onto the direct object in 45.b, replacing the accusative case.

The application of Unmarked Tense Deletion is restricted to certain clause types, but where applicable, it is preferred to apply it rather than not apply it. Thus, 45.a is a more natural sentence than 45.b.

The following clause types permit Unmarked Tense Deletion:

- 46. i. complements of verbs of saying, asking (indirect discourse)
- ii. complements of verbs of telling (indirect commands)
- iii. relative clauses in ngadi
- iv. main clauses, other than clefted ones

The following are clause types which do not permit tense deletion:

- 47. i. Topicalized and relativized clauses
- ii. Adjoined clauses, including clauses of condition, reason and several others described in chapter 24.

An example of 46.ii is 48; and an example of 46.iii is 49.

- 48. Ngata kangka kun niween, niya kurtama kun ngukun.

1 tell 3/AC 1 drink 2/AC

'I told him, (for him) to drink the water (and he did).'

1 3

2

49. Ngata nganikinkur_i waangkur, ngani_i ngadi ngithun wunga keeli kun.

1 that/F go/F that RL my 1 wait

'I'm going to that (place)_i, where (that)_i my wife's brother is

1

1

waiting.'

The two rules of Imperative Deletion and Unmarked Tense Deletion are similar, but they can't be reduced to a single rule. The former is obligatory, while the latter is optional. Moreover, the rule of Imperative Deletion deletes the case assigned to third person terms, while Unmarked Tense Deletion leaves case quite unaffected.

12.5 Footnotes

1. The directional determiners in the nominative, e.g. pata 'that/west' are in a sense inherent locatives. In the negative, they go in the Accusative, just like an overtly inflected Locative.

i. Niya kunaa kun pata.

1 be that/west

'He was in the west.'

ii. Niya kunaajadi pajin.

1 be/NG/EV that/west/AC

'He wasn't in the west.'

2. No verb syntactically parallel to English promise is known, i.e. where the Equi trigger is not the lowest ranking upstairs term.

MINOR SENTENCE TYPES

13.1 The verb rewurta13.2 The verb medji

13.3 Dependent verbs

13.4 Impure terms

13.5 The locative case in negatives

The observations in this chapter cover a variety of topics which call for language-particular observations. Only the material in section 13.4 is in general relevant for subsequent chapters.

13.1 The verb rewurta

At least one verb, rewurta 'ask for', 'ask about', governs an obligatory dependent in -ur, -wur, -r, -kur.

1.a Niya rewurta kun ngithaan ngukur.

1 ask me/AC water/AC

'He asked me for water.'

1

1.b Rewurtanji mangkurtangkar kantha-ngama, kaku.

ask/RECIP child/AC 1 (father/mother) uncle

'The father, mother, and uncle ask each other about the child.'

1

I have glossed the suffix in ngukur 1.a and mangkurtangkar 1.b as 'Accusative', even though it manifests the allomorphy of the Instrumental case (which is also identical to the Propriative, as well as

the Future Tense). The suffix in question is treated exactly like the Accusative, in that it is wiped out by an overt tense, as in 2. The Instrumental case (and the Propriative), in contrast, will never be wiped out by tense. Therefore, it is reasonable to assume that the verb rewurta requires unique allomorphy for the Accusative. There is another case, the Locative, which is treated the same as the Accusative in this respect. So it could be that the Formative glossed 'Accusative' in 1 is really the Locative. I know of no evidence bearing on this question.

2.a Niya rewurtathur ngithanthar ngukur.

1 ask/F me/F water/F

'He will ask me for water.'

1

2.b *Niya rewurtathur ngithanthar ngukurur.

1 ask/F me/F water/AC/F

13.2 The verb medji

The verb medji 'call (by kinship name)' requires a dependent in the Accusative case which specifies the kinship name. This dependent nominal cannot take any dependents of its own except a possessor. The direct object is a nominal referring to a human, and can take its own dependents.

3.a Ngata medji kun niween kerntin.

1 call 2/AC wife/AC

'I call her wife.'

1 2

3.b Mangarta medji kun ngithaan niwenin thapujin.

1 call 2/AC his 'AC older-brother/AC

'The child calls me his older brother.'

1 2 .

13.3 Dependent verbs

There are a variety of dependent verbs. I list the various types for reference. Chapters Eighteen, Twenty, and Twenty-Four treat some of these in greater detail. The dependent verb may function as:

i. Initial subject, with Subject to Subject Raising:

a. Ngatjarta kudi kunaa kun ngithaan?

Q'/1 look be 2/AC

'Who is looking at me?'

Q'/1 2

ii. Initial direct object, with Subject to Object Raising:

b. Ngata kudi kun tangan, yakur pulejid kun.

1 see 2/AC(man) 2/INF catch/INF

'I saw a man catch a fish.'

1 2 2

iii. Adjoined relative clauses, clauses of reason, conditional clauses, and other semantic types.

c. Ngata werethur kiinkur wangalkur, ngimpen kuparithadpa.

1 throw/F that/F 2/F 1/GN make/NF/AC

'I'll throw that boomerang that you made.'

1 2 1

iv. With Equi usually but optionally applying.

d. Niya were kun ngithaan, mathuru thaathuru nyithuru.

1 send 2/AC get/F/AC return/F/AC 2/F/AC

'He sent me, to fetch (get and return) firewood.'

1 2 2

v. Impure terms of time, in which case it is in the Infinitive.

e. Ngithun thapu yuujid jidpaltii kun, ngithaan waangud kun.

my before hide 1/AC come/go

'My brother hid, before I came.'

1 1

vi. Affixes of goal and source that are verbs.

f. Ngata ngithun-pudii nyedwi-pudii kun waangun.

1 my/come place/come go/EV

'I'm leaving (coming from) my country.'

The raising structures i, ii are dealt with in Chapter Eighteen in some detail. Types iii is treated in Chapter Twenty-Four. Type iv has been described briefly in Chapter Twelve. Type V is reviewed briefly in Chapter Eighteen. Type vi is treated in Chapter Twenty.

13.5 Impure terms

Traditionally, grammarians have distinguished between 'true' or 'grammatical' cases (nominative, accusative, dative) and the 'non-cases', 'local cases', or 'concrete cases' (locative, etc.) The nature of this distinction has been made much more precise by the theory of relational grammar, in which term dependents and impure dependents are distinguished.

So far, I have dealt almost exclusively with terms or with features of the syntax that don't distinguish the terms and impure dependents.

In this section, I treat mostly some aspects of impure terms: goal, source, place, time, instrument.

13.5.1 Goal and source of motion

In a proposition which expresses motion, it is usually possible to designate the point of origin (source) of motion, or the end point of motion (goal). It has already been observed that the goal expression may appear in the locative or with a verbal affix (type vi of 13.4). Under certain circumstances it may also appear in the accusative, but the most general way of expressing the goal is with the verb affixes -ya, -iya, -kiya, and mari. The latter formative is used if the direct object is the entity which moves, or if both subject and direct object are necessarily in motion 3, while the former set of alternants is used when only the subject is in motion 4. In other words, the distinction between the two verbs -((k)i)ya, mari is between intransitive and transitive, resp. A predicate may in surface structure have as its only expression of motion the goal or source nominal with one of these verbal affixes 4.

3. Ngata wirimathur maarnkur ngithunmarithur thapujimarithur.

1 take/F 2/F my/bring/F brother/bring/F

'I'll take the spear to my brother.'

1

2

4. Niya kethadiya waangun.

1 river go/EV

'He went to the river.'

1

-Mari has verbal properties, as already noted, and the same is true of -((k)i)ya, as well as the source forms to which we now turn.

Just as the formatives which express goal vary according to whether the main verb is transitive or intransitive, so is there a choice between two source forms based on this distinction. If the verb is intransitive, then the source nominal takes -pudii 5, while if the verb is transitive, then it takes -puri 6.

5.a Ngata ngithunpudii nyedwipudii kun waangun.

1 my/come place/come go/EV

'I came from my place.'

1

5.b Ngata thaltithur tulpudiithur.

1 stand ground/come/F

'I'll get up from the ground.'

1

6. Nyingki marined nginngithad medalpudithad, mangarta mara kalkathur.

1 extract/NG/NF 2/NF ear/take/NF 1 counter-factual sick/F

'If you hadn't taken the fly out of (his) ear, the child would

1

2

1

have gotten sick.'

7.e Jilka pathiinyin kutuutukanngge.

1 west billy-can/LC

'The pencil (is) on the west side of the billy can.'

1

7.f Menke tawunngge thaltin.

outside house/LC stand

'(He's) standing outside the house.'

Time expressions differ in form and syntax from locative expressions.

Time expressions are in many instances clearly nominal e.g., relkur wadkur (head/PROPRIETIVE day, sun/PROPRIETIVE) 'at noon', ti-wadku (this-day, sun) 'yesterday'. While many time expressions remain in the Nominative 8, others are typically in the Propriative form 6. In either instance, time expressions may undergo concord in tense 8b, 9b, though not always, evidently 9.a.

8.a Yanta thaa kum kidpirtin.

today return afternoon

'(He) returned today in the afternoon.'

8.b Ngata pilaankur pirathur kirpirtinkur.

1 tomorrow/F return/F afternoon/F

'I'll come back tomorrow afternoon.'

9.a Ngata relkur wadkur thaathur.

1 head/PRP day/PRP return/F

'I'll come back at noon.'

1

9.b Ngata waangkur kirtikirtiuru.

1 go/F moon(light)/PRP/F

'I'll go in the moonlight.'

1

a tensed clause, as in 10.c cf. Chapter Seventeen.) It must be ²⁴³accepted then, that there is an inanimate agent in such sentences as 10.c.

However, in some instances the expression of the inanimate entity which brings about the activity necessarily entails a human agent, i.e., an agent which uses the inanimate entity as an instrument to effect the activity. Under such circumstances, the agent consistently appears as the (active) subject, while the inanimate entity which is involved in the undertaking appears toward the end of the sentence, in a distinctive case form, the instrumental. (The instrumental formative is identical to the future: -kur, -wur, -ur, -r.) For example, the underlined phrases in 11 below are instrumental phrases.

11.a Kiinta yuur netha ngithaan pirmun parngar.

1 hit 2/AC chest/AC stone/IN

'He hit me in the chest with a rock.'

1 2

11.b Ngata nethur ngimpenthar ngithun kungungkuru wangalkuru.

1 hit/F 2/F my brother/GN/IN/F boomerang/IN/F

'I'll hit you with my brother's boomerang.'

1 2

11.c Ngithun kaku jayijadi wirniin kiinkur kudumpuwar.

my 1 miss/NG/EV 2/AC that/IN wire-spear/IN

'My uncle doesn't miss game (food) with that wire spear.'

1

2

13.5 ~~The~~ locative in negatives

It ~~has~~ been noted that verbs may take nominal dependents inflected for the locative. However, the locative inflection may be replaced by the accusative suffix -n, -in in negative sentences. For example, the locative phrase witaa (cave/LC) in 12.a is replaced by the accusative witan (cave/AC) in 12.b.

12.a Waa witaa.

go cave/LC

'Go in the cave!'

12.b Kumaa, wangine witan.

stop go/NG cave/AC

'Don't go in the cave!'

The replacement of the locative by the accusative in this environment is usual, but apparently not obligatory, since there also exist pairs like 13.a,b.

13.a Waa, jatha tawunnge.

go enter house/LC

'Go, enter the house!'

13.b Kumaa, jane tawunnge.

stop enter/NG house/AC

'Don't enter the house!'

This kind of change in surface case is quite unusual, as languages go. One possible explanation is that the available information is misleading, and that we are actually dealing here with an optional syntactic rule. However, perhaps this is nothing more than a conditioned alternation in surface case.

CONJUNCTION

14.1 Conjoined clauses

14.2 Conjoined nominals

14.3 Imperatives and conjoined imperatives

14.4 Footnotes

14.1 Conjoined clauses

Clauses of the form of 1 below are common in Lardil. Here, there are in surface structure conjoined verbs (there is no overt conjunction word or affix.)

1.a Niya yuud terlte netha ngithunin kadmun-remanin.

1 break hit my/AC 2/AC

'He knocked out ('broke (and) hit') my tooth.'

2

1.b Ngata kelethur werethur yudur-thukankur.

1 cut/F throw/F 2/F

'I'll cut off ('cut and throw') my beard.'

2

1.c Nyuta yuud terlte warnawu muthan nyijin.

1 break burn big/AC 2/AC

'The fire burned down ('broke and burned') the big tree.'

2

1.d Ngata waangkur mathur thaathur ngukur.

1 go/F get/F return/F 2/F

'I'll fetch ('go and get and return') water.'

1

2

There are a number of possible sources for this construction: word compounding; conjoining; dependent verbs; raising; clause union. Such constructions very likely derive from underlying conjoined clauses. The permitted combinations in surface compound verbs is evidently so free that word compounding is not a plausible source. Unlike constructions involving dependent verbs, the construction illustrated in 1 requires that all the verbs go together. On semantic grounds, raising looks implausible. This construction does not resemble any type of clause union that has been proposed.

The surface conjoined verbs may include both transitive and intransitive verbs, as in 1.d, in which case a direct object appears, namely the one permitted by the transitive verb. Evidently, conjoined transitive verbs must share the same underlying direct object, as in 1.a-c. In all instances, the clauses which undergo conjunction reduction must have the same canonical subject.

14.2 Conjoined Nominals

14.2.1 Pronouns

The pronouns of Lardil distinguish besides person (first, second, and third) and number (singular, dual, plural), the categories of inclusive:exclusive in first person pronouns and, in all persons, generation harmony. The latter is a kinship principle reflecting generation levels.

One's relatives are partitioned into two sets. The first comprises those in one's own generation, e.g. brothers, cousins, and those in the even-numbered generations counting away from that generation e.g. grandchildren, great-great-grandchildren, grandparents, etc. In Hale's (1966) terminology, one is said to be 'harmonic' with respect to these kinsmen. The second set of kin--to whom one is 'disharmonic'--are those in the odd-numbered generations; one's children, great-grandchildren, parents, uncles, aunts, and so on.

It is the dual and plural pronouns of Lardil which reflect the generation level distinctions. Hale gives the example of how one may ask the question "where are you going" when addressing two persons. If the two persons being addressed are harmonic with respect to each other, the question is phrased as in 2, using the pronoun kidi 'you-dual-harmonic'. For example, if the pair addressed were known to be brothers, or cousins, or a woman and her grand-daughter, 2 must be used.

2. Karaankur waangkur kidi?

where/F go/F 1 (22H)

'Where are you going?'

1

If the two persons are known to be disharmonic, then the question must be phrased with the pronoun nyiinki, as in 3. This sentence would be appropriate for a woman and her son, or a man and his nephew, and so on.

3. Karaankur waangkur nyiinki?

where/F go/F 1(22D)

'Where are you going?'

1

The answers to 2 and 3 would reflect the same distinctions, as Hale points out. 2 would be answered by 4 in the circumstances where 3 would elicit 5 instead:

4. Nyadi waangkur riiwur.

1(13H) go/F east/F

(we:dual:harmonic go:FUT east:FUT)

'We're going east.'

5. Nyaanki waangkur riiwur.

1(13D)

'We're going east.'

The principle of generation harmony is reflected for all persons and numbers of the non-singular pronouns, as can be seen in 1.

The situations used above to exemplify the use of pronouns are actually relatively simple. A larger group of persons will involve greater complexity in the internal relationships. If the relationships are completely known to the speaker, a straightforward convention applies. If, in a set of persons there is at least one disharmonic relationship, then it takes precedence over any harmonic relationships, for the disharmonic pronoun must be used. For example, if a set of persons to be referred to or addressed consists of four brothers and their father, the pronoun is chosen on the above basis: the four brothers are harmonic with respect to each other, but disharmonic with respect to their father, and therefore the disharmonic pronoun must be selected.

The ideal situation in Aboriginal society is that all kinship relations of all persons are known. Nevertheless, the circumstance may arise where one does not know whether a set of persons to be spoken to or referred to are a completely harmonic set or not. In that case, the

following conventions are followed in speaking Lardil:

- a. In the dual, the harmonic pronoun is used.
- b. In the plural, the disharmonic pronoun is used.

Hale has suggested (personal communication) that, in effect, the assumption is made that a pair of people together are likely to be harmonic, but if there are three or more persons, then it is likely that one will be disharmonic with respect to the others.

First, cross-cousins are treated as disharmonic to each other, although strictly speaking, they are harmonic, being in the same generation as ego.

14.2.2 Compound Reduction

Hale's article (1966) has as its major purpose the demonstration that the principle of generation harmony must be mentioned in the structural description of a rule called Compound Reduction. This rule derives a non-singular form from underlying singular conjuncts.

Sentences in Lardil may be conjoined, with the conjunction pana 'and', 'also'.

6. Pidngen yalali kun pana mangarta yalali kun.

woman laugh and child laugh

'The woman laughed and the child laughed.'

These sentences may then be reduced by Conjunction Reductions to sentences of the form of 7, i.e. containing conjoined NPs:

7. Pidngen pana mangarta yalali kun.

'The woman and the child laughed.'

Consider now conjoined sentences parallel to 6 but in which one of the conjuncts contains a pronoun and the other a kinship term. These also undergo Conjunction Reduction, cf. 8-9.

8.a Ngata waangkur riiwur pana ngithun kantha waangkur riiwur.

I go/F east/F and my father go/F east/F
'I'll go east and my father will go east.'

b Ngata waangkur riiwur pana ngithun thapu waangkur riiwur.

I go/F east/F and my brother go/F east/F
'I'll go east and my brother will go east.'

9.a Ngata pana ngithun kantha waangkur riiwur.

'I and my father will go east.'

(Hale, 6)

b Ngata pana ngithun thapu waangkur riiwur.

'I and my brother will go east.'

(Hale, 10)

(The numbers in parentheses indicate examples taken from Hale, 1966.)

There exists a reduced form of a sentence like 9.a in which the subject noun phrase is different in one notable respect from the above conjoined constructions. This is shown in 10.a.

10.a Nyaanki ngithun kantha waangkur riiwur.

1(13D) my father go/F east/F
'My father and I will go east.'

(Hale, 8)

b Nyadi ngithun thapu waangkur riiwar.

1(13H) my brother

'My older-brother and I will go east.'

(Hale, 11)

The pronoun in (10a) is a first person dual, not singular as in (9a): that is the pronoun in (10a) is marked for the number of the noun phrase as a whole. Moreover, the pronoun of (10a) reflects the generation harmony of the conjuncts of (9a): contrast (8b), (9b), (10b).

Thus the following are ill-formed:

11a *Nyadi ngithun kantha waangkur riiwar.

(Hale, 9)

b *Nyaanki ngithun thapu waangkur riiwar.

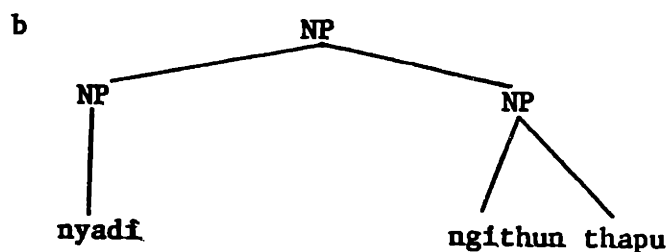
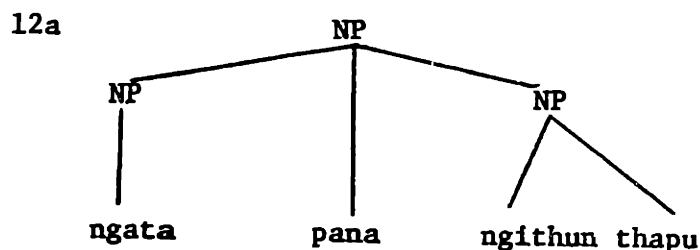
(Hale, 12)

To account for these observations, Hale proposes that there is a rule, ... 'compound reduction defined over conjoined expressions like that in 6 (=9a) -- specifically, compound expressions in which the conjoined noun phrases are a pronoun and a possessed kinship term and in which the pronoun and the possessor are coreferential. The effect of the reduction rule is to replace the pronominal conjunct and the conjunction by an appropriate nonsingular pronoun-- i.e. by a pronoun which incorporates the number and person of the compound as a whole. Hence,

the rule which effects this reduction must make reference to the number and person of the entire conjoined expression. . . . the generation harmony of the conjuncts must be mentioned as well.

(Hale 1966)

Thus Hale's rule converts an NP structure¹ like (284a) into, essentially, (12b); cf. (9b), (10b).

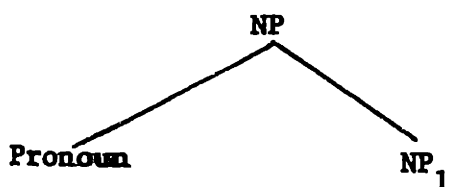


14.2.3 Universal NP Structure Hypothesis

Before considering certain facts bearing on this claim, I present an alternative hypothesis. It is presented as a claim about the NP structure (potentially) available to all languages.

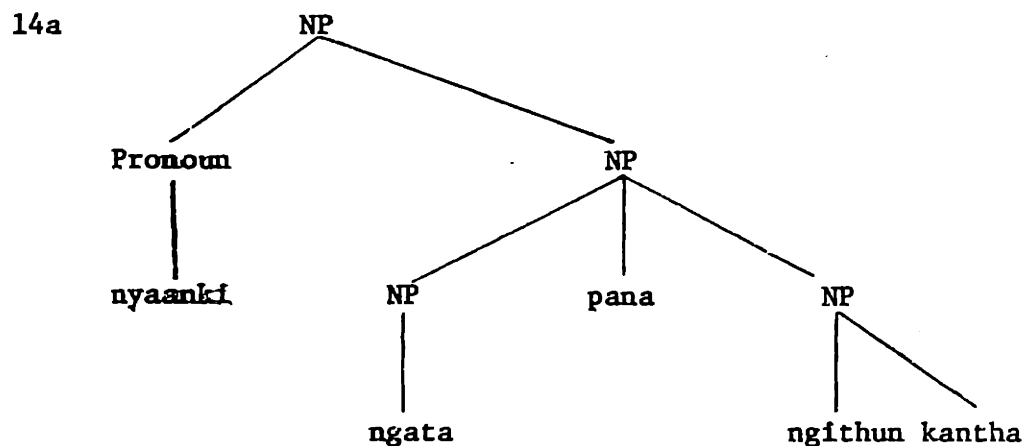
13 NP Structure Hypothesis

Universal NP structure is, minimally:



where NP_1 may be a single Np or a series of two or more conjuncts (p&g 12a) and where Pronoun is a pronominal word distinguishing question for the NP as a whole.

The underlying structures for the subjects of (9a) and (10a) are, then, identical:



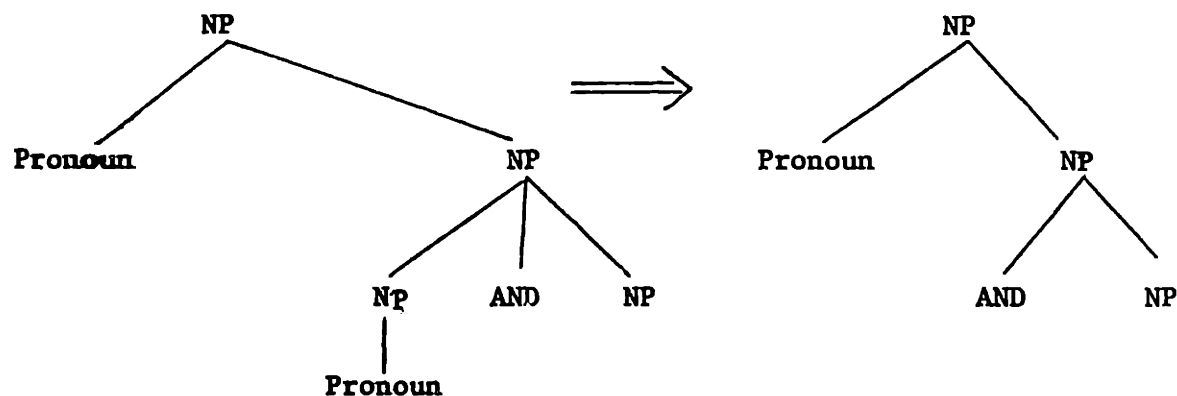
The subject of (9a) is derived by deletion of the upstairs pronoun nyaanki, while that of (10a) is derived by deletion of the downstairs pronoun conjunct ngata, plus the conjunction pana. I will extend the claim made above by claiming that these two rules are universally available, Lardil having both.

14b Upstairs Pronoun Deletion

Delete Pronoun in the structure of (14a).

c. Pronoun Conjunct Deletion

Delete a pronoun conjunct:



In a given language, the conjunction represented here as AND may or may not be deleted as well. In Lardil, of course, the conjunction pana deletes.

It can be seen that either Upstairs Pronoun Deletion or Pronoun Conjunction Deletion must apply in any given instance.

The NP Structure Hypothesis permits certain actually existing possibilities of Lardil which do not follow from Hale's analysis.

These are discussed in 14.2.3 and 14.2.4.

14.2.3 Singular pronouns

Firstly, it is possible to have a singular pronoun and a singly, singular Np functioning as a single constituent, as in 15.

15 a. Ngata ngimpen thapu waangkur riiwar.

I your brother go/F east/F

'I your brother will go east.'

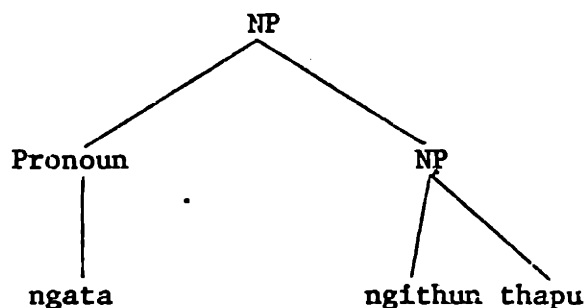
b. Niya pidngen wungithur yadamankur.

he/she woman steal/F horse/F

'The woman will steal a horse.'

The subject of (15a) has the structure of (16), consistent with my hypothesis (14). Hale's analysis as it stands, predicts that sentence (15a) is ill-formed, for the only NPs consisting of Pronoun plus NP without intervening Pana permitted are those where the pronoun is non-singular. So to account for (15a) in Hale's analysis, a separate statement, permitting structures like (16) to be generated in the base, is required.

(16)



But structure (16) is permitted automatically under the NP Structure Hypothesis.

14.2.4. Paired Kin Terms

Not only singular pronouns, but also non-singular ones appear in constructions that cannot be derived by Hale's Compound Reduction Transformation. Consider (17) and (18).²

These sentences contain paired kin terms, e.g. pumar. This term (one of many such in Lardil) refers to a pair of persons related to each other in a particular way, namely that one is the wife's brother., yempe is 'man and his mother's brother.'³ Such forms imply a degree of solidarity or togetherness not found with the regular kin terms.

17 a. Nyadi pumar waangkur.

(13H) go/F

'My wife's brother and I are going.'

b. Nyinkki yempe waangkur.

22D go/F

'You and your mother's brother will go.'

18 a. ? Ngata pana pumar waangkur.

'I and someone and his wife's brother will go.'

b. ? Nyinkki pana yempe waangkur.

'You and someone and his mother's brother (or his son's wife's brother) will go.'

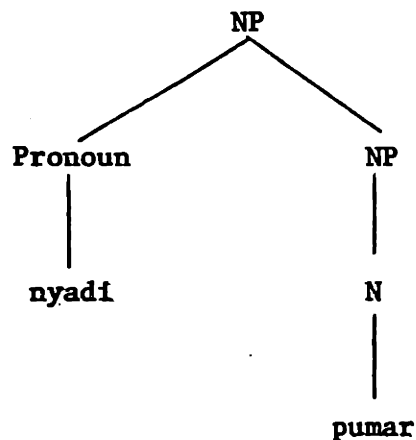
The Compound Reduction Transformation will derive the subject of (17a), nyadi pumar from the subject of (18a), ngata pana pumar. I am not completely certain about the degree of grammaticality of (18a), but it is clear that (17a) and (18a) are not at all paraphrases of each other.

It would be necessary, if the Compound Reduction analysis were maintained, to add some separate statement to handle sentences like those in (17). It is not necessary to consider in detail what that statement would be, but one possibility can be eliminated. The paired kin terms do not take possessive phrases, and so a sentence like (19) is ungrammatical.

19 *Ngata pana ngithun pumar waangkur.

Sentences like (17) are handled under the NP Structure Hypothesis with no extensions or modification needed. The structure (20) is permitted by this hypothesis with the correct reading.

(20)



In summary, the NP Structure Hypothesis handles all the facts of Lardil NP Structure. Under an analysis like Hale's, a variety of structures and rules are needed for the different surface structures.

14.3 Imperatives and Conjoined Imperatives

The subject of an imperative must be a second person pronoun, but it is optionally deleted. A positive imperative verb is uninflected, while a negative imperative verb takes the negative suffix -ne, -rne (in contrast to the uninflected tense declarative which takes -ad(1), -wed(1)) for the negative, 21, 22. The accusative case of the declarative is deleted in imperatives, except on first person pronouns where it is retained (23).

- 21 a. Nyingki ratha kun karnjin

2 spear 2/AC

'You speared the wallaby.'

2

- b. (Nyingki) ratha karnsjin.

1 spear 2

'Spear the wallaby!'

2

- 22 a. Nyingki rajadi . karnjinin

1 spear/NG 2/AC

'You didn't spear the wallaby.'

1

2

- b. (Nyingki) rane karnjin.

1 spear 2/AC

'Don't spear the wallaby!'

2

- 23 a. Nyingki mudwa kun ngithaan.

1 follow 2/AC

'You follow me.'

1

2

(Nyingki) mudwa ngithaan.

1 follow 2/AC

'Follow me!'

2

In conjoined imperatives, the first conjunct is as above, while the verb of the second conjunct takes an overt imperative inflection -d, -Vd, (where V is a copy of the stem-final vowel), and no marker -th-. The accusative case is not absent in these clauses.

24 Matha kiin maarn, karnjin raad.

get that 2 2/AC spear/IM

'Get that spear, (and) spear the wallaby!'

2

2

I propose the following analysis. All imperative clauses take the imperative formative -(V)d underlying and all undergo the regular rules of case assignment and so on. There is a rule of Imperative Deletion which deletes the following items:

- (1) the subject, optionally
- (2) the imperative morpheme -(V)d
- (3) the accusative case of third person NPs.

Imperative formation only applies to the first clause when there are conjoined imperative clauses. (I lack examples with more than two conjuncts; I predict that if they are grammatical at all, then each conjunct except the first will take the overt imperative -(V)d.)

However, in a pseudo-imperative, i.e. an imperative clause functioning as a conditional clause, the accusative case is not deleted:

(25) Nyingki were kiinin parngan (ngata nethur ngimpenthar).

1 throw 2/AC 1 hit/F 2/F
'You throw that stone (and I'll hit you).'

1

2

1

2

14.4 Footnotes

1. Hale (1966) conducted his investigation in the framework of transformational-generative grammar. The observations made in the present subsection do not relate to the choice of framework, and so I have chosen to express them in that same approach. In any event, the theory of the syntax of dependents of nominals is not well developed as yet within Relational Grammar.
2. These sentences were first pointed out to me by Kenneth Hale.
3. Alternatively, yempe, can refer to 'man and his son's wife's brother'.

CLITICIZATION

15.1 Verb Enclitic

15.2 Second position enclitics

15.3 Pronominal enclitics

15.4 Mara and pana

15.5 Time proclitics

15.6 Surface structure constraint

There is a set of morphemes which always encliticize. They are described in sections 15.1-2. Certain other elements optionally encliticize as shown in 15.3-2, and certain time expressions optionally procliticize as shown in 15.5.

15.1 Verb enclitic

The Eventive morpheme kun, which indicates that something has actually happened or is happening (as opposed, say to generic sentences), always encliticizes to the verb,⁽¹⁾ It can be seen that this is an enclitic, not a tense-mood suffix, because it never distributes by Concord. Moreover, when a sentence undergoes Conjunction Reduction, only one occurrence of -kun is permitted, the repeated ones being deleted, in contrast to tense-mood inflection which is retained on each conjoined verb (2a-b).

- (1) Ngata padki ku thungalin.

I V-inst II

'I chopped a tree.', 'I am chopping a tree.'

- (2) a. Ngata padki (*kun) terlte kun tiinin thungalin.

1 chop break 2/AC

'I chopped down ('chopped and broke') this tree.'

1 2

- b. Ngata padkith-urterlteth-ur tiinkur thungalur.

1 chop/G break/F 2/F

'I'll chop down this tree.'

1 2

15.2 Second position enclitics

Some enclitics attach to the first constituent phrase of the sentence; e.g. thada 'meanwhile'; tha 'now, then, after that'.

- (3) a. Yalange wurtuu thada niya waa.

other /LC corner/LC 1 go

'Meanwhile, he went over to another corner.'

1

- b. Niya thada waa yalange wurtuu.

1 go other/LC corner/LC

(paraphrase (a)).

There are other second position enclitics, but they attach to the first word, not phrase of the clause, e.g. ngadi 'relative clause marker'.

4. a. Tiin nyedwe Juru-Kunhanhaa, tawun ngadi kunaa kun.

this place house be

'This place is Kunhanhaa-Point, where the (mission) house is.'

- b. Ngata waangkur, ngithun ngadi thapu kunaa kun.

I go/F my brother be

'I'm going to the place where my brother lives.'

15.3 Pronominal enclitics

Pronouns in Lardil are free forms, however two of them, nyingki 'you singular' and niya 'he/she', optionally encliticize in a question, often but not necessarily attaching to the question word. The reduced enclitic forms are nyi and rni, respectively.

5. a. Kari nyi kudi kun ngithaan?

Q you see V me/AC

'Did you see me?'

- b. Karankinkin kudi nyi niween?

Q-Time see you him/AC

'When did you see him?'

15.4 mara and pana

The counterfactual particle mara can occur as a free form, usually in sentence initial position, or encliticized to the first word.

6. a. Niya mara rathad ngithunad, ngata mara kuriltithur niwenthar.

he spear/NF me/NF I kill/F him/AC

'If he had speared me, I would have killed him.'

- b. Mara nigmpenad nethad niya, ngata mara nethur niwenthar.

you/NF hit/NF he I hit/F him/ F

'If he had hit you, I would have hit him.'

The conjunction pana 'and, 'also' can either occur in front of the conjunct or encliticized to it.

7. a. Kiin ngawa ngithunad pethad kun, pana pethur ngimpenthar.

dcg me/NF bite/NF bite/F you/G

'That dog is the one that bit me and (it) will bite you too.', or

'That dog which bit me will also bite you.'

15.5 Time proclitics

There is a set of time expressions which can occur either free or procliticized to the verb: yuujid, yuud 'perfective'; pilaan, pilaa- 'tomorrow'; tilanthad, tilaa- 'a long time ago'.

8. a. Ngata ngawan kunaathur pilaankur.

I hot be/F

'I'll be hot tomorrow.'

- b. Ngata ngawan pilaa kunaathur. (=a)

9. a. Yuujid waa tangka malthuri.

go person all

'All the people went.'

- b. Yuud waa tangka malthuri. (=a)

go person all

10. . Ngaju thungal nyingki padki kun yuud?

what thing you chop

'What thing did you chop?'

I have no recorded instances of a single word containing two clitics.

15.6 Surface Structure Constraint

Evidently, no more than one clitic per word is permitted. For example in (10) the perfective yuud is not procliticized to the verb as it usually is, but the verb happens to have attached the enclitic kun.

CHAPTER SIXTEEN

POSSESSOR ASCENSION

16.1 Body part expressions

16.2 Arguments for Possessor Ascension

16.3 Restriction on Possessor Ascension

16.4 Possessors and Non-Terms

16.1 Body part expressions

A possessor expression is assigned the genitive case and precedes its governor taking by concord any case or tense assigned to the latter. When the governor is a body part, then by 'possessor' I mean the person or animal to which the body part is attached. The sentences, below are examples.

1. a. Nyalmu maltha-kupu-maltha tultijadi nyalmunganin yidin.

1 never cover/NG we/CN/AC 2/AC

'we never covered our bodies'

1 2

- b. Mela netha pinjalti pirwiridkanin relkin.

1 hit toss squid/GN/AC 2/AC

'The sea struck and tossed the squid's hair.'

1 2

- c. Ngithun marlta yuud kelee.

me/GN 1 cut/R

'My hand got cut.'

1

d. Niya netha kun ngithunin relkin.

1 hit me/GN/AC 2/AC

'He hit my head.'

1 2 .

The most common way of expressing the part-whole relationship in a sentence is rather different from the genitive-type construction, however. If the body part is the initial direct object, then it is typical to find that it is replaced in surface structure by the possessor expression associated with it. For example, (2a) is a possible sentence, in which the possessor phrase ngithunin (me/GN/AC) modifies the direct object and body part noun kuwun (eye/AC). But it is preferred to express the same proposition with the surface sentence 2b. In this sentence, the direct object expresses the possessor, but it is not in the genitive: it takes only the accusative case which is regularly assigned to direct object. The body part expression, having been replaced as a direct object, nevertheless takes the accusative case in the surface structure sentence 2b.

2. a. Wulpud nighthunin kuwun ratha kun.

1 me/GN/AC 2/AC spear

'Smoke pierced my eye(s).'

1 2

b. Wulpud ngithaan ratha kun kuwun.

1 2/AC spear eye/AC

(lit. 'smoke pierced me (in the) eye') (=2a)

1 2

It is clear that 2b cannot be derived from the structure underlying 2a simply by deleting the genitive inflection of the possessor phrase, because the possessor and body part expressions no longer form a constituent in 2b. They may possibly remain side by side, as in 3, but the preference is for them to be split up, as in 2b.

3. Mutha kalkan padwi¹jpadwi²jpennge kun ngithadn yidin.

big 1 tremble:CAUS 2/AC body/AC

'The disease (lit. 'big sickness') made my body tremble.'

The way in which I propose to express the relationship between pairs of sentences like 2a, b is by setting up the same initial structure for both: that shown most directly by the surface structure 2a, and by deriving the more typical form, that of 2b, by a rule which raises the possessor expression out of the noun phrase, deleting its genitive marking, and, in the instance of a sentence like 2, making it the new direct object.

That is, I propose that the relationship is to be expressed in terms of an ascension rule.

4 Possessor Ascension

The possessor expression in a part-whole relation may ascend.

16.2 Arguments for Possessor Ascension in Lardil

16.2.1 Constituent structure

The possessive ascension rule (4) causes the part-whole construction of the initial structure (e.g., 2a) to split into two surface constituents. As can be seen from 2b,3 this consequence is desirable.

16.2.2 Grammatical relations

The ascending possessive evidently takes on the relationship of the NP out of which it raises, as shown by the accusative form in 2b and 3 as opposed to the genitive (plus accusative by concord) in 2a. But this

When a nominal ascends out of some constituent (the host) then the ascende~~e~~e must assume the grammatical relation of the host.

Rule 4 is a relation rule, i.e., it creates a new term. Relational theory predicts that this rule should be limited itself to terms:

Only terms can host ascensions.

In Lardil, the only NPs known to permit Possessive Ascension are subjects 7 and direct objects 2. These are subset of the terms, and so this is consistent with the prediction 6.

l **ache** **c**

'My head aches.' (cf. 1c)

1 C

Ngata yuud ngawa yuda.

1 hot C

'I have gotten hot (in the) body.'

1 **c**

Nga jarta tiinad jaawaangad?

who/1 here C go/NF

'Whose tracks are going by here?'

It can be seen that the possessor and body part split up in subjects as in objects. The case of the body part is assigned according to the initial grammatical relation: nominative for subject; accusative

(or tense) for direct object. This is consistent with the Chomeur Marking Law.

16.2.3 Topics

Only a Canonical term can be a Topic in a sentence like 2b which has undergone Possessor Ascension, only the possessor phrase a be Topic (8), not the body part, showing that the possessor phrase is the direct object of 2b. (In 8, I have substituted tiinta 'this man' for the possessor phrase of 2b, ngata 'I', to get a more felicitous sentence). Cf. also 9.

8. Tiinta wurpudkan rathad kun kuwungad.

TP/2 1/GN spear/NF C/NF

'This man (is the one) whose eyes smoke pierced'

TP/2

C

9. Tiin karn[^]jin ngithun thapu[^]jikan rathad kun tedngad yalangad

TP/2 1/GN spear/NF C/NF other

murntarnud[^]ngad.

LOC

'This wallaby (is the one) my brother speared (in the) thigh on

TP/2

1

C

some other island.'

LOC

This restriction on Topics seems to me to be especially strong confirmation that Possessor Ascension must be stated in terms of grammatical relations. Neither word order nor case inflection can serve to identify possible Topic Nominals.

16.3 A restriction on Possessor Ascension

There is a constraint on P.A. beyond the fact that it is restricted to subjects and direct objects. The host nominal must be either the subject of an intransitive verb (7) or the direct object of a transitive verb (2,3). Thus (10), in which the rule has been applied to the subject of a transitive verb, is ungrammatical.

10. *Tinnta ngithaan netha kun marita.

TP/1 2/AC hit C

'This man (was the one who) hit me (with his) hand'

| TP/1 | 2 | C |
|------|---|---|
|------|---|---|

It is possible that this restriction makes reference to initial relations. Thus the passive 11, is also evidently ungrammatical.

11. *Ngata neyi kun tiininangan marin.

1 hit/R C(man)/GN C(hand)/AC

'I was hit by this man (on the0 hand'

1 **C** **C**

The possessor phrase, to be ascendable, must be in a part-whole relationship with the governing nominal. Permitted governing include body parts of people and animals, but also parts of objects. The noun kanga 'language' permits P.A.; turlta 'excrement' does in the sense of 'guts' (as of a wallaby) but not in the sense of 'excrement'.

12. Ngata marithur turur karnjinkur.

| 1 | V/F | C/F | 2/F |
|---|-----|-----|-----|
|---|-----|-----|-----|

'I removed the guts of the wallaby'

1 c 2

16.4 Possessors and Non-Terms

There is one circumstance under which canonical term is logically the possessor of initial (and canonical) impure dependent viz. a locative.

It appears, however, that locative phrases containing body part objects. The sentences in (13) are typical examples of locative body part expressions. The body part is in the locative case, but the possessive phrase is not, being instead the subject of the sentence.

13. a. Niya mare maan^r_^ pathun.

he hand/LC spear west/EL

'He's coming from the west, spear in hand.'

b. Tiin pathun relke jumad.

here west/EL head/LC coolamin

'Here (she) comes from the west, a coolamin on her head.'

A locative expression in such a construction seems to form a constituent with the following nominal, i.e., the one expressing the object whose location is being specified, as mare maarn 'spear in hand' in 13a.

Thus this construction definitely differs from the P.A. sentences.

The expression mare maarn in 13a corresponds semantically to the sentence 14a (and similarly for 13b, 14b).

14. a. Niya mare $\frac{2}{1}$ marn kunaa kun.

(s)he hand/LC spear be

'(S)he has a spear in his hand.'

- b. Niya relke jumud kunaa kun.

(s)he head/LC coolamin be

'she has a coolamin on her head'

CHAPTER SEVENTEEN

PASSIVE AND REFLEXIVE

- 17.1 Passive
- 17.2 Reflexive
- 17.3 Spontaneous Demotion
- 17.4 Reflexive Passive
- 17.5 Footnotes

The first two sections of this chapter are descriptions of the Passive and Reflexive constructions, prepared in an early, transitional variant of Relational Grammar. It will be seen that many concerns here are more for problems in a Transformational, rather than Relational, framework. Section 17.3 focusses on certain similarities between Passives and Reflexives in Lardil, and proposes a modification in the current theory of Relational Grammar to handle the observed fact, specifically, to permit Spontaneous Demotion of term to chomeur. Possible Spontaneous Demotion in several other languages are described briefly here. In section 17.4, an alternative to Spontaneous Demotion for Lardil, the Copying Advancement, is examined. Copying Advancements have been suggested by Perlmutter and Postal for a variety of languages including German and Spanish.

17.1 Passive

17.1.1

Consider the following pairs of sentences:

1.a Tangka yuud wungi ngithunin wangalkin.

man steal my/AC boomerang/AC

1 2

'A man stole my boomerang.'

1 2

1.b Ngithun wungal yuud wungii tangan.

my boomerang steal/R man/AC

1 C

'My boomerang was stolen by a man.'

1 C

2.a Thungal mirntilnya kun niween.

1 crush 2/AC

'A tree crushed him.

1 2

2.b Niya mintilnyaa kun thungalin.

1 crush/R C/AC

'He was crushed by a tree.'

1 C

3.a Ngawa pethur ngimpenthar.

1 bite/F 2/F

'A dog will bite you.'

2.b Nyingki peyithur ngawukan.

1 bite/R/F C/GN

'You will be bitten by a dog.'

4.a Yaka pilaa terltethur tiinkur pidkar.

1 tomorrow break/F this/F 2/F

'A fish will break this line tomorrow.'

4.b Tiin pidka pilaa terlteethur yakan.

1 break/R/F C/GN

'This line will be broken by a fish tomorrow.'

In each set, sentences a and b are paraphrases. (I will refer to the a sentences as the active form and the b sentences as the passive form.) In both instances, the action described is the same, and the thematic roles of each nominal are the same, the theme and agent are the same, and so on. The sentences have the same truth value for any pair, i.e., if a is true then b is necessarily true, and if a is false, then b is too. Clearly, this relationship must be stated in the grammar of Lardil, and I now consider the possibility that it be done by deriving both a and b from the same initial structure, namely that most directly represented by the a sentences where the agent is the initial subject and the theme the initial direct object.

Let us examine the differences between the active a sentences and the passive b sentences. In sentence 1.a, the agent tangka (man) is the subject, and the theme ngithunin wangalkin (my/AC boomerang/AC) the direct object. Two things in the sentence show that these are the grammatical relations: word order and case marking. The subject case is nominative, and the direct object is accusative, these being just the respective cases of the above two NPs. The usual word order is subject-verb-direct object, and this is the order in 1.a. (Similar remarks can be made for the second example above, 2.a.)

In a sentence in which the verb is inflected for tense (here- after a tensed clause), the word order is as above, e.g., 2.a has the order subject - verb - direct object, but the noun inflection is somewhat different. The subject is nominative (ngawa in 3.a), but the direct object takes the tense category in concord with the verb: ngimpenthar (you/F) in 3.a.

Now consider the passive sentences 1.b, 3.b. The NP in 1.b that corresponds to the direct object of the active 1.a appears in 1.b in the nominative case in front of the verb: these are features associated with the subject, as we have seen. This is true in the tensed pair 3 as well: the direct object of 3.a appears instead as the subject of 3.b. On this basis, sentences are evidence for the advancement rule 5 in Lardil.

5. Passive

2 → 1

17.1.2 Arguments for 5 in Lardil

Studies in relational grammar indicate that certain other changes in a passive are expectable, i.e., 5 is the universal rule, or 'core effect', but there are other consequences, as well as morphological side effects that are language particular.

i. the verb is usually marked when the passive applies. This is true in the Lardil examples. The verb in a passive sentence shows the marker -V, -yi, e.g., wungii in 1.b vs unmarked active wungi in 1.a; peyithur in 3.b vs pethur in 3.a.

ii. the erstwhile subject can be expected to have some special

chomeur marking. The above sentences show that a chomeur subject in passive sentences takes the accusative in an untensed clause, and the genitive in a tensed clause: e.g., tangan (man/AC) 1.b: ngawukan (dog/GN) 3.b, resp.

iii. by the Relational Annihilation Law, the former subject should appear in the position where impure terms are located, which is the end of the sentence in Lardil. In the above sentences, this is just where the chomeurs appear.

iv. by the same principle, the chomeur in passives should not undergo rules which apply to pure terms. This can be shown to be true if we look at two rules, Subject to Object Raising and Topics.

S to O Raising. In the instance of this raising rule, it is only a subordinate canonical subject which can be raised into direct object position in the superordinate clause, e.g., as in 6. The logical subject of the subordinate clause takes its case (or tense) according to the higher clause and is separable by intonation from the subordinate clause.

6.a Ngata kudi kun tangan, nejid kun karnjinkur.

1 see 2/AC kill/INF 2/INF

'I saw the man kill the wallaby.'

1 2 2

6.b Ngata kudithur tangkar, nejid karnjinkur.

1 see/F 2/F kill/INF 2/INF

'I'll see the man kill the wallaby.'

1 2 2

When the subordinate clause is passive, then it is the canonical

subject, never the initial subject (and chomeur) that raises:

7. Ngata kudi kun karn₁jinin, neyi₁jid kun tangka.

I see wallaby/AC hit/kill/PASSIVE/INF. man/INF

'I saw the wallaby be hit by the man.'

Only a term can bear the overlay relation of Topic. The Topic nominal goes in the Nominative, and, if it isn't itself the subject, then the subject goes in the Genitive. The typical position for a Topic is at the beginning of the sentence. Either the active subject 8.b or direct object 8.c may be clefted, as well as the passive (derived) subject, 9.b, but not the chomeur of a passive, 9.c.

8.a Yaka terl₁te kun tiinin pidkan.

1 break this/AC 2/AC

'A fish broke this line.'

1 2

8.b Tiin yaka terltethad kun pidkangad.

this TP/1 break/NF 2/NF

'This fish (was the one that) broke the line.'

TP/1 2

8.c Tiin pidka yakan terltethad kun.

TP/2 1/CN

'This line (is the one) the fish broke.'

TP/2 1

9.a Tiin pidka terl₁tee kun yakin.

1 break/R C/AC

'This line was broken by a fish.'

1 C

9.b Tiin pidka terltethad kun yakan.

TP/1

C/GN

'This line was (the one) broken by the fish.'

1

C

9.c *Tiin yaka pidkakan terlteethad kun.

TP/C 1/GN break/R/NF

There exists a type of relative clause formation which is restricted to relativizing terms. A passive agent cannot be relativized, though the derived subject of a passive can be.

It is worthwhile elaborating on case-marking in passives. Since the passive agent in a tenseless clause is in the Accusative (and in the infinitive form in an infinitive clause), it might seem that it is a direct object, in effect, a replacement for the initial direct object which has been advanced to subject in the passive. But this is essentially an accidental similarity as we can see if we look at tensed clauses. Here, the direct object takes the tense of the verb, whatever that may be, but the passive agent always takes the genitive. It has been argued by Hale (1970) that the fact that both direct object and passive agent are marked Accusative is not accidental, however, and so I have devoted Chapter Twenty Three to exploring the issue in somewhat greater depth, though with unchanged conclusions.

17.1.3 Side effects of the Passive in Lardil

I have argued that there exists in Lardil a rule, Passive (or 2-Advancement), which is just the universal rule known by that name: a rule which advances a direct object to subject. The full statement of that rule for Lardil requires inclusion of the side effects.

10. Passive (2 Advancement)

2 → 1

Side effects for Lardil:

1. Verb marking: -yi -V (glossed R 'Registration')
2. Chomeur marking: the GEN(itive) case, replaced by the ACC(usative) in tenseless and infinitive clauses.

As a transformational rule, the passive is statable as in 11.

11. Passive transformation

S.D.: X - NP - V - NP - R - X

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | ⇒ |
|---|---|---|---|---|---|---|

S.C.: 1 4 3 + 5 ∅ ∅ 6

This account is based on that for English in Chomsky (1965).

The subject and direct object noun phrase are terms 2 and 5 of the structural description. A sentence must contain the passive formative (term 4) to be able to undergo this rule. That is, verbs which passivize are subcategorized for this formative, and the phrase structure rule for expanding VP is:

12. VP V + Tense (NP)(NP)(R)

Rule 11 does not explicitly state the case category which is taken by the old subject (term 2), something which is stated under 'side effects' in the relation rule 10. This aspect of the passive is tied up with the whole issue of case marking, to which I have devoted a separate chapter below. A few remarks here will suffice as a preview of that chapter.

One could decide, as did Hale (1970), that the appearance of the accusative on the old subject in a passive (the chomeur) is a

direct consequence of verb subcategorization for the Passive formative. That is, the passive transformation 11 moves the input subject (term 2) to a position replacing the passive formative (term 4), which is dominated by VP (cf. 12). Thus term 2 is dominated by VP in the output of the passive transformation, just as is the direct object in an active sentence. The fact that both of these NPs take the accusative case can be seen as following in a Transformational Grammar from their domination by VP. Thus this approach takes case marking to be basically a question of domination relations.

But there are some weaknesses in this hypothesis as set forth by Hale (1970). Primarily, there is no way to account for the appearance of the Genitive instead of Accusative in tensed clauses. In the chapter on case marking below, I consider several transformational solutions, and also consider how a relational grammar handles the same facts.

The remainder of the present section deals with some language-particular restrictions on the Passive.

17.1.4 Non-Passivizing verbs

There exist some transitive verbs which do not permit 2-Advancement. The verb keeli 'wait' is one of these. There is no passive corresponding to 13 below. Another such verb is wutha 'give', cf the active sentences 14a,b (on the relationship between 14.a and 14.b see section 2).

13. Ngata keeli kun ngithunin thapujin.

1 wait my/AC brother/AC

'I'm waiting for my brother.'

14.a Ngata wutha kun niween wangalkin.

(I give him/AC boomerang/AC

'I gave him a boomerang.'

14.b Ngata wutha kun wangalkin niwenmari.

(I give boomerang/AC him/put

(= 14.a)

Possibly the restriction on the non-passivizability of wutha has to do with ambiguity that would arise. The passive of wutha, if it existed, would be wuyi. But this form, if so happens, is the irregular, suppletive passive of the verb jitha 'eat, cf. 15.

15.a Tanka yuur jitha ngithunin yarpujin.

1 eat my/AC 2/AC

'A man has eaten my bullock (or other animal.)'

1 2

15.b Ngithun yarpud yuur wuyi tangan.

1 eat/R C/AC

'My bullock has been eaten by a man.'

1 C

This putative explanation is a weak one. Another, more general account seems possible, and I turn to it, after the necessary background has been provided, in 17.1.4.

17.1.5 On derived direct objects

One possibility, at least in a Transformational approach, is that no passive rule exists in Lardil. Rather, there would be a base-generated structure directly underlying passives. Verbs such as kaeli,

wutha, would be blocked from insertion in the passive base structures.

This alternative would receive support if it could be shown that derived direct objects never undergo passivization. There is in fact, no known instance in Lardil where it can be uncontroversially maintained that a derived direct object may undergo advancement to subject. This may well be a gap in the available data. For example, it would be worthwhile checking to see if the main clause of a sentence like 16 can be passivized. The direct object of that clause is a derived one, having undergone the ascension rule Subject - to - Object Raising. (In a transformational grammar, one might want to reject this rule of Subject to Object raising. However, the critical nature of 16 might remain: even if the derived direct object is deemed to instead still be the subordinate subject, then it will still meet the S.D. of the passive rule 11. If that direct object is alternatively held to be the underlying superordinate direct object, then there is no issue here.

16. Ngata kudi kun ngithunin thapujin, rajid kun karnjinkur.

1 see 2/AC spear/INF 2/INF

'I saw my brother spear the wallaby.'

| 1 | 2 | 2/INF |
|---|---|-------|
|---|---|-------|

The kind of sentence to check is, then:

17. Ngithun thapu kudi kun, rajid kun karnjinkur.

?? (unattested) 'My brother was seen spearing the wallaby.'

Another situation is that where a verb has both direct and indirect objects. Pairs of sentences like 18 do exist:

18.a Ngata kupari kun wangalkin ngithunmari thapujimari.

1 make 2/AC my/put brother/put

'I made a boomerang for my brother.'

1 2

18.b Ngata kupari kun ngithunin thapujin wangalkin.

my/AC brother/AC

'I made my brother a boomerang.'

Here, one might wish to say that there is a Dative (3-Advancement) rule to derive 18.b from 18.a: i.e., the indirect object of 18.a has become the direct object of 18.b. But the putative derived direct object of 18.b, ngithunin thapujin, may NOT undergo 2-Advancement, i.e., advancement by the Passive rule to subject position.

But, as I argue in Chapter 19, 3-Advancement is not in Lardil, thus ngithunin thapujin is not a direct object in 18.b and so cannot undergo 2-Advancement.

Another rule that creates derived direct objects is Possessor Ascension (Chapter Sixteen). The logical possessor of the body part replaces the nominal of which the body part is the head. Thus a sentence like 19.b derives from the same structure as 19.a. Now 19.b has a passive counterpart, 19.c.

19.a Tangka yuud ratha ngithunin jayin.

1 spear my/AC 2/AC

'A man speared my foot.'

1 2

19.b Tangka yuud ratha ngithaan jayin.

F 2/AC C/AC

'A man speared me (in the) foot.'

2 C

19.c Ngata yuud rayi jaa.

1 spear/R C

'I was speared (in the) foot.'

1 C

But there is no way to show that 19.c is derived via 19.b.

It could be that the passive applied first to 19.a, and then Possessive Ascension, to derive 19.c. Thus there would at no point be a derived direct object.

In summary, it seems to be the case that direct objects deriving from Ascension rules never undergo the Passive.

There is no doubt, however, that Lardil has the Passive rule. Specifically, consider the Relational Annihilation Law. Given this law, and the existence of rules which apply only to canonical terms, then we would predict that the latter rules cannot apply to the agent phrase (chomeur subject) of a passive sentence.

This prediction seems to be true. Topic and Relativized nominals are restricted to being pure terms, and the agent phrase of a passive may NOT bear either of these overlay relations.

Since the Lardil Passive has been shown to have properties of the 2-Advancement rule, a universal rule of relational grammar, I conclude that this rule is indeed in Lardil, though it has a restriction against (at least some) derived objects advancing.

17.1.6 The possibility of a semantic hierarchy condition

Rules comparable to the Lardil passive have been found in many languages. Although I am not certain that they are all instances of the universal rule, 2-Advancement, I wish to consider the hierarchical conditions imposed on their applicability. Thus, 2-Advancement in Nitinaht and Navajo 'subject-object inversion' (Hale 1973) both require that the surface subject be equal to or outrank the direct object on a 'chain-of-being' hierarchy in which human outranks non-human, animate outranks non-animate, and the like---each such language seems to differ in certain details of the hierarchy.

Evidently, this hierarchy does not constrain the passive in Lardil in an absolute way, as the sentences already presented serve to demonstrate. Nevertheless, some verbs seem to be inherently passive, and the existence of a chain-of-being hierarchy would explain this. For example, the verb yuluu 'be carried off by' with the agent wadngal 'wind' is recorded only in the passive:

20. Thungal yuluuvnymed wadngaikan.

1 carry-off/R/ADM C/GN

'The thing is liable to be carried off by the wind.'

1

C

Perhaps related to this is the case of the verb pirti 'arrive' in a passivized form, when the underlying subject is a disease contacted by a person (the underlying direct object). It seems that the active form, with the disease expression as the surface subject, is appropriate if one is discussing the disease, say as an epidemic 21 while the passive form, with the person contracting the disease as subject, is

the usual form for reporting the illness of a person, 22. The verb pirti is not usually passivized in other contexts, although it is possible, 23.

21.a Mutha kalkan pirti kun ngithaan yanta.

big 1 arrive 2/AC today

'(lit) A big sickness arrived at me today.'

1 2

'I got a big sickness today.'

21.b Thudungu ngimpenthar pirtithur.

1 2/F arrive/F

'(lit) A cold will arrive at you.'

1 2

'You'll catch a cold.'

22.a Ngata tiinkidpi pirti thudungkan.

1 last-night arrive/R C/GN

'(lit) I was arrived at by a cold last night.'

1 C

'I got a cold last night.'

22.b Tiinwadku pirti ngata pampadin.

yesterday 1 C/AC

'(lit) I was arrived at by diarrhea yesterday.'

1 C

'I had diarrhea yesterday.'

23.a Ngata tangkawedta, pitiijadi maanangan.

1 person/PRV/person arrive/R/NG C/AC

(said by a man who harbours initiates):

'(lit) I am a person lacking persons, (I) was not arrived

1

at by a child.'

C

'I have no one, no child came to me.'

The general impression that one receives from these observations is that there is a preference for the topic to be made the surface subject. This may or may not be true for all active-passive pairs in the language.

17.1.7 Agent Deletion

In a passive sentence, an unspecified agent phrase (chomeur) does not have to be overt.

24. Ngithun marlta yuur kelee.

my 1 cut/R

'My hand got cut.'

1

17.1.8 The lack of passive imperatives

Passive sentences with a derived second person subject do not seem to be permitted in the imperative, although there is no reason, if the Lardil Passive is really the universal rule of 2-Advancement, to

anticipate this restriction. The restriction is, therefore, a language particular one. Evidently, the Lardil restriction is that the imperative subject must not only be second person but must also be Agent. This is possibly a restriction manifested to varying degrees in other languages. For example, the most acceptable passive imperatives in English are those in which the derived subject has some degree of control or choice:

Be examined by a specialist!

17.1.9 The notion 'First 2'

Possibly, there is the restriction on Passive in Lardil that only the First Direct Object may advance. (This possibility was pointed out to me by D.M. Perlmutter.) If there is an Initial Direct Object, then it of course is the First Direct Object. But if a verb lacks an Initial Direct Object, then a non-term that is subsequently advanced to Direct Object will be the First Direct Object. In Chapter Nineteen, it is suggested that a Goal or Locative may advance to Direct Object with certain verbs. For at least one such verb, pirti, this derived Direct Object may undergo the Passive. On the other hand, it seems that non-First Direct Objects cannot advance to Subject. A variety of these are reported on in Chapters Eighteen and Nineteen.

17.2 Reflexives

Let us call a sentence in which the subject and direct object refer to one person (including that person's body part) a reflexive sentence. From what we have seen so far, we might expect to find

reflexive sentences like 25 below, i.e., in which the subject is nominative and the direct object, referring to a body part, takes a possessive phrase in the genitive, a possessive phrase which happens to be coreferential with the subject. (The entire Direct Object is inflected for future in concord with the verb.) Sentence 25.b is similar, except there is no overt possessive phrase, though semantically there is one.

25.a Ngata kirithur ngithunkur yudur.

I wash/F my/F body/F

'I'll wash myself.'

25.b Ngata yuud padki[^]jpadki tedin.

I Perfective chopped (several times) leg/AC

'I chopped my leg several times.'

A few sentences like 25 have been recorded, but the preferred form is as in 26, where 26.a is equivalent to 25.a. (Due in part to the rarity of the first type of reflexive, I have been unable to find even one exact minimal pair in the available information on Lardil. I made up 26.a to achieve a minimal pair with 25.a. The latter happened to be recorded with a passive verb form, evidently an error. There are enough examples, however, to establish the validity of the remarks here.)

26.a Ngata kiriithur yuda.

1 wash/R/F body

'I'll wash myself.'

lit: 'I'll wash (my) body.'

b Ngata yuud widngee.

1 scratch/R

'I scratched myself.'

c Ngata yuud padkinee nguda.

1 bump/R forehead

'I bumped my forehead.'

It is very common in reflexive sentences to find the word ngedur 'oneself' procliticized to the verb, but its presence is optional:

27.a Ngata (ngedur) neyi kun.

1 hit/R

'I hit myself.'

b Tangka yuud (ngedur) rayi.

1 spear/R

'The person has speared himself.'

The reflexive proclitic ngerur co-occurs with an overt direct object:

28 Ngata yuud (ngedur) neyi nguda.

1 hit/R forehead

'I hit myself in the forehead.'

The typical reflexive sentence, as in 26, 27, 28 differs from the regular active construction (this as in the rare reflexive type of 25) in these respects:

29.i. The reflexive verb form consists of the stem plus the suffix -yi, -V, i.e., an affix identical in form and alternants to the passive morpheme.

- ii. The surface nominal that corresponds to the direct object of non-reflexives lacks the possessive pronoun, contrast yuda 'body' in 26.a with ngithunkur yudur 'my body' in 25.a. This is reminiscent of the surface nominal that has served as host for Possessive Ascension, in lacking overtly the possessive modifier that it has in underlying structure.
- iii. That same nominal appears in the nominative case (e.g., yuda, nguda in 26), rather than in the case (or tense) expected for a direct object: cf. yudur 'body' 25.a; tedin 'leg' 26.b.
- iv. It is possible for the initial direct object to be entirely absent in surface structure, as in 26.b.

I assume that, if the typical reflexive sentence (e.g., 26.a) is derived from an initial structure different from its surface structure, then that underlying structure must be essentially identical to the rarer reflexive (as 25.a), for the reason that the latter corresponds most closely to non-reflexives in structure and form.

There are two ways to derive reflexives that are worthwhile considering. On the one hand, there is the brute force method: a reflexive rule converting 25.a directly to 26.a. Call this Reflexivization Hypothesis 1. (This was the analysis assumed for the discussion of the previous chapter.)

An alternative approach involves an attempt to relate the syntax of reflexives to other constructions which it obviously resembles: passives 29.i; body part possession 29.ii, iii. That is, we account for

the reflexive surface structures solely in terms of independently needed initial structures and rules: call this Reflexive Hypothesis 2.

If hypothesis 2 is workable, then it is to be preferred for the generalizations that it makes. So far as I can see, hypothesis 2 does work. (However, two alternative solutions are examined in 17.3 and 17.4.)

I'll now outline the first two in detail. For a pair like 25.a, 26.a, we assume the initial structure 30. The direct object is the body part, with a possessive phrase modifying it that is coreferential to the subject. No nominals show case or tense in 30, these being placed by subsequent rules which I will not mention here. Sentence 25.a is derived from 30 only by the application of only these subsequent case-assignment rules.

30. Ngata kidithur ngithun yuda.

1 V/F P/GN 2

Under hypothesis 1, sentence 26.a is derived from 30 31:

31. Brute force reflexivization rule

i. The insertion of the Registration formative, with allomorph

-V here:

(ngata kiriithur ngithun yuda)

1 V/R/F P/GN 2

ii. Deletion of the possessive expression within the direct object--by coreference with the subject.

(ngata kiriithur yuda)

1 V/R/F 2

iii. Blocking of regular case assignment, so that the direct²⁹⁴
object won't pick up the usual case or tense (here, the
Future)

(*ngata kiriithur yudur)

(ngata kiriithur yuda)

1 V/R/F 2

A condition on 31 is, of course, that the head NP of the direct
object be a body part.

Hypothesis 2 works as follows:

32. i. The sentence 30 meets the conditions for possessive
ascension: namely, the direct object is a body part and
governs a possessive expression. Possessive Ascension
converts 30 to:

(ngata kirithur ngata yuda)

1 V/F 2 C

- ii. This sentence is capable of undergoing the Passive. The
direct object ngata becomes subject; the old subject
ngata becomes a chomeur (I continue to ignore case marking);
and the verb takes the Registration -V as a side effect.

(ngata kiriithur yuda ngata)

1 V/R/F C C

- iii. A nominal may be deleted by pronominalization; this applies
to pronouns like ngata 'I'. There is in the above structure
a nominal, the chomeur ngata, that is coreferential with the
subject, also ngata, and so it can be deleted:

(ngata kiriithur yuda)

1 **V/R/F** **C**

iv. It was observed in the previous chapter that the chomeur created by Possessive Ascension has the same case category as the possessive expression. Case assignment in reflexives follows the same principles as for other sentences having undergone possessive ascension. The nominal that originated as the possessor of the body part yuda in the above sentence has become the subject, and so yuda takes the subject case, i.e., nominative (uninflected).

There are a couple of observations supporting hypothesis 2 over hypothesis 1.

Reflexive sentences permit the imperative, but only when they have the active form 33. Evidently the more typical reflexives (resembling the passive) do not permit imperatives.

33.a (Nyingki) rane ngimpen teda.

1 **spear/NG** **you/GN** 2

'You don't spear your thigh!', 'Don't spear yourself in the thigh!'

2

b (Nyingki) terti ngimpen yuda nguyinenkurur.

1 rub you/GN 2 red-ochre/IN

'(You) rub your body with red ochre!'

1

2

This can be accounted for if the second type of reflexive (e.g., 26) is derived via the Passive, as per hypothesis 2(32). Passives in general do not permit imperatives.

Under hypothesis 1, this restriction must be stated ad hocly, because the Passive rule plays no role (cf. 31).

Secondly, from hypothesis 2 it would follow that reflexive sentences of the passive type, e.g., 26.a were actually ambiguous: in section 1, it was pointed out that an indefinite agent phrase may be deleted in the passive. Thus 26.a ought to have two readings:

34. Predicted readings for 26.a under hypothesis 2

1. 'I'll wash myself/my body.'
2. 'I'll be washed on the body (by somebody).'

This prediction is correct. It is probably because of this ambiguity that the reflexive emphatic proclitic ngedur is commonly (though not obligatorily) used in reflexives 27, 28. But ngerur can, evidently, be used as an emphatic elsewhere too.

From this one could conclude, therefore, that there is no special reflexive rule, rather that the typical reflexive sentence is derived as outlined in 32. I will now examine two alternative solutions.

17.3 Spontaneous Demotion

A third way of looking at Lardil reflexives is as a change in grammatical relations of a special kind, Spontaneous Demotion. A general principle, the Relational Annihilation Law, makes it an automatic consequence that the underlying subject loses that grammatical relation when the passive applies:

35. The Relational Annihilation Law.

Whenever some nominal, N_A , takes over the grammatical relation of another, N_B , then N_B loses its grammatical relation, and becomes

what is called a chomeur. Chomeurs are created by other Relation²⁹⁷ Rules such as Dative (Indirect Object) Movement, Subject Raising, There-Insertion, and so on.

The Relational Annihilation Law has empirically testable consequences, which investigations to date have essentially confirmed.

A further provision of Relational Grammar is the Motivated Chomage Law 36, which is part of an attempt to constrain the theory of grammatical relations.

36. Motivated Chomage Law.

Chomeurs exist only as a consequence of the Relational Annihilation Law.

There is a body of facts which indicate that the Motivated Chomage Law is incorrect. As a counterproposal, I suggest that a new class of Relation Rules be recognized: Spontaneous Demotion rules. A Spontaneous Demotion Rule (or, for short, simple Demotion rule) converts some term of grammatical relation directly to a chomeur, and its former relation is not taken over by any other noun phrase.

There are, then, at least two Relation Rules which a direct object can undergo: the Advancement rule of Passive 37 and the Demotion Rule 38.

37. $2 \rightarrow 1$

38. $2 \rightarrow c$

In section 17.3.1, I present evidence that reflexive constructions are formed by Demotion Rules. Sections 17.3.2 and 17.3.3 are discussions of other possible instances of Demotion, in Nitinaht and Dyirbal.

17.3.1 Reflexivization

While many studies of reflexive constructions have been undertaken, I know of no definition explicitly intended as universal. A reflexive construction in English is generally accepted as one in which two clause-mates² are coreferential, and one of them has a distinctive morphological form, specifically as a so-called reflexive pronoun, i.e. a possessive or accusative pronoun plus the noun self:

39.a I_i shaved myself_i.

39.b The playersⁱ shaved themselves_i.

In anticipation of the languages which will be examined in the present study, I offer the following proposal as the universal definition of a reflexive construction: any sentence in any language which, by virtue of the coreference of two constituent clause-mate noun phrases, is distinctively marked in some way.³

The range of distinctive marking which exists in reflexive constructions in human languages is quite great. I attempt here to make much of this variation predictable on independent grounds, provided reflexive constructions are derived by Demotion Rules, and the remaining language-particular variation is of a highly constrained sort, also expectable on independent grounds.

In the subsections below, I examine reflexive constructions in Lardil, Mabuyag, and English. In each instance, I will show that language particular facts follow from the universal theory.

17.3.1.1 Lardil

A sentence in Lardil containing non-coreferential subject and direct object is typified by 40.a. The word order is I V 2, and the cases assigned to the nominals are Nominative (uninflected) and Accusative, respectively. The enclitic kun 'Eventive' is irrelevant here.

40.a Pidngen kiri kun ngithaan.

1 wash 2/AC

'The woman washed me.'

1 2

40.b Pidngen ngedur kirii kun.

1 self wash/R

V

'The woman washed herself.'

1

Sentence 40.b is a reflexive construction. The subject is pidngen 'woman' and the logical direct object is coreferential with it. The direct object is manifested, however, not as pidngenin 'woman/AC' but as the fixed form ngedur 'self' which is procliticized to the verb. Not only that, the verb takes the Registration affix -i.

The proclitic ngedur is optionally deletable. Thus 41 is equivalent to 40.b.

41. Pidngen kirii kun.

As a first approximation to the Reflexivization Rule for Lardil, we have 42.

42. Lardil Reflexivization

When subject and direct object are coreferent then:

- i. replace the direct object by ngerur (but ngerur can be deleted optionally):
- ii. add the affix -i to the verb.

Item 42.ii is striking, in that the same affix is added to a verb when the Passive Rule applies. So, the active sentence 43.a has the Passive counterpart 43.b. (Here, the chomeur is assigned the Genitive case; under other circumstances, it takes a different surface inflectional category.)

43.a Ngata kiri kun pidngenin.

1 wash 2/AC

'I washed the woman.'

1 2

43.b Pidngen kirii kun ngithun.

1 wash/R C/GN

'The woman was washed by me.'

1 C

Now the Passive can be stated as in 9, where the insertion of the affix -i on the verb is a Side Effect of that rule.

44. Passive

2 1

Side Effects for Lardil:

- i. Verb takes -i (or another allomorph: -yi; etc.)
- ii. Chomeur is assigned Genitive Case.

This is unsatisfactory, because the insertion of the formative

-i, -yi, etc., has to be stated on two separate occasions, as a part of³⁰¹ Reflexivization and as a part of the Passive. If Reflexivization is instead the Demotion Rule 45, then a generalization concerning the insertion of -i, -yi, etc., is possible.

45. Reflexivization

2 → C

The generalization is the following: The formative with alternants -i, -yi, etc., is inserted whenever a verb with cycle-initial direct object lacks a cycle-final direct object. When an active sentence undergoes the Passive rule, this condition is clearly met, for the initial direct object becomes a subject, and no replacement direct object is possible. (The initial subject of the active becomes a chomeur in the passive.) If my claim that Reflexivization is the Demotion Rule 45 is correct, then the condition is again met and the same formative is inserted. Formatives which are inserted under such circumstances are known from a variety of languages, and have been called Registration markers in relational grammar. A registration marker signals the presence (or absence) of a given term of grammatical relation in initial or derived structure, or in circumstances requiring reference to both levels, as in Lardil.

In contrast, if the initial direct object is replaced by a different derived direct object, then the Registration affix -i, -yi, etc. fails to appear, as in the sentence 46.a, in which the initial direct object is a clause corresponding to the simple sentence 46.b, while final direct object is the noun phrase tangan 'man/AC' raised from the initial subordinate subject, tangka 'man/NOM'.

46.a Ngata kudi kun tangan, yakur pulejid kun.

1 see 2/AC 2/INF catch/INF

'I saw the man, catch a fish.'

1 2 2

46.b Tangka pule kin yakin.

1 catch 2/AC

'The man caught a fish.'

1 2

I have shown that 42.ii, the assignment of Registration $-(y)i$, is not a part of the Reflexivization Rule but rather it reflects the Verbal Registration Rule, which is independently needed in Lardil. Item 42.i must be stated as a language particular Side Effect of the Demotion Rule 42, done here as 47.

47. Side Effect of 42 in Lardil:

Replace the chomeur by the fixed procliticizing element ngedur.

The fact that ngedur is optionally deletable needed not be stated separately, because one way in which pronominalization is effected in Lardil is by deletion of the entire nominal.

I can now restate the rule 42 as a universal rule; it and the Passive 44 are shown in the revised forms in 48a, b. The Verb Registration Rule 48.c is also needed in Lardil.

48.a Passive: $2 \rightarrow 1$

Side effect for Lardil: Chomeur is assigned the Genitive Case.

48.b Reflexivization:

When subject and direct object are coreferential: $2 \rightarrow C$.

Side effect for Lardil: Chomeur is converted to procliticizing ngerur.

48.c Verb Registration in Lardil

A verb which has an initial direct object but which lacks a canonical one takes the formative R(-yi after a monosyllable, -V (copy of preceding vowel) after a polysyllable)

17.3.1.2 Mabuyag⁴

In Mabuyag, morphological differences between reflexive and non-reflexive constructions are manifested not only in the verb and direct object, as in Lardil, but also in the case marking of the subject. Sentences 4.a, b illustrate this. The subject of a transitive sentence is regularly assigned the Ergative case, as moegikazi-n 'child/ERG', 49.a, but the subject of a reflexive construction is nominative, as moegikaazi 49.b. (This statement will be modified below.) The verb of the non-reflexive construction 49.a consists of the verb root matham- 'hit' and the tense affix -dhin 'remote past', while the verb of the reflexive construction 49.b contains the additional formative -ay (glossed 'R') matham-ay-dhin. A direct object is normally uninflected for case 14.a: but when it is coreferential with the subject, then the direct object is manifested as a pronoun in the relative case: in 49 nungungu 'himself', literally 'he/RELATIVE'.

49.a Moegikazin mabayg mathamdhin.

1/ERG 2 hit/PAST

'The child hit a man.'

1

2

49.b Moegikaazi nungungu mathamaydhin.

1 himself hit/R/PAST

'The child hit himself.'

1

As a first approximation to stating Reflexivization in Mabuyag, let us consider 50.

50. Effects of Reflexivization in Mabuyag.

When subject and direct object are coreferential, then:

- i. Delete the ergative case of the subject i.e. assign nominative case to it.
- ii. Add the formative -ay to the verb.
- iii. Convert the direct object to a pronoun.
- iv. Assign relative case to the direct object.

I will now demonstrate that each of 50.i, ii, iii can be ascribed to perfectly general processes in Mabuyag, provided Reflexivization is the Demotion Rule 45.

In Lardil, it has been shown that the verb registers the absence of cycle-final direct object for a verb having an initial direct object.

In Mabuyag, a similar, but crucially different, distinction is made.

Intransitive verbs are marked differently from transitive verbs in their conjugation: thus while a transitive verb in the remote past adds the tense affix directly to the root, as matham-dhin 'hit' in 49.a, and gasam-dhin 'catch' in 51.a; on the other hand the affix -ay must be inserted with an intransitive verb, as uzar-ay-dhin 'go' 51.b, mul-ay-dhin 'speak' 51.c.

51.a Moegikazin waapi gasamdhin.

1/ERG 2 catch/PAST

'The child caught a fish.'

1 2

51.b Moegikaazi uzaraydhin.

1 go/R/PAST

'The child went.'

1

51.c Moegikaazi mulaydhin.

1 speak/R/PAST

'The child spoke.'

1

This distinction is perfectly general, and there must be a Verb Registration Rule in Mabuyag which attaches the formative -ay to an intransitive verb, i.e. one lacking a direct object. For intransitive verbs, it does not matter whether Verb Registration applies to initial or canonical relations, but if we assume the latter, as in 52, then the appearance of -ay in a reflexive construction 50.ii is accounted for, provided we accept the Demotion Rule 45 as the correct account of reflexivization in Mabuyag.

52. Verb Registration in Mabuyag.

Assign -ay to any verb lacking a canonical direct object.

When the Demotion Rule 45 converts the initial direct object to a chomeur, then there is no canonical final direct object, and the verb of the clause will automatically undergo 52. Thus, while 52 will not affect sentence 49.a, it is applicable to 49.b, where the initial direct

object, coreferential with the subject moegikaazi 'child', is manifested as the chomeur nungungu 'himself'.

So 50.ii can be eliminated from the grammar of Mabuyag, as it is a direct consequence of the rules 45, 52.

Item 50.i points out the difference in case marking of subject in reflexive and non-reflexive constructions. From the sentences in 51, we can see that case assignment of subjects in Mabuyag correlates with transitivity. When the verb is intransitive, lacking a direct object, as in 51.b, c, then the subject remains uninflected, i.e. nominative; but when a verb clearly has a direct object, as in 51.a, then the subject is assigned the ergative. So we have to have the case assignment rules 53 in Mabuyag; I assume 53 to apply to classic grammatical relations.

53. Case Assignment for Subjects in Mabuyag

1. 1 \longrightarrow ERGATIVE if a direct object is present in the clause.
- ii. 1 \longrightarrow NOMINATIVE if no direct object is present.

No special statement like 50.i is needed for the subject of a reflexive construction, if we accept the Demotion Rule 45. For once 45 has applied, then the subject will automatically undergo, not 53.i as for the corresponding non-reflexive, but rather 53.ii.

I have also claimed that statement 50.iii can be eliminated as a separate statement. This can be done by making Pronominalization (i.e. the conversion of one of two coreferential nominals to a pronoun) applicable to clause-mates. This in fact simplifies the statement of pronominalization, for that rule no longer needs to be restricted to non-clause-mates, as it would in the more traditional analysis of coreference relations.

This only leaves 50.iv as the only language-particular statement associated with Mabuyag Reflexivization. This is an interesting result, because it seems that the language particular Side Effects of universal relation rules such as 45 can be limited to assigning case to the chomeur created by the rule, as with the Passive 48.a. (It may also be necessary to permit Side Effects in various languages which assign some affix to the verb.)

In conclusion, no statement resembling the extremely language particular 50 need be set up. Instead, the universal rule 48.b applies in Mabuyag; only the Side Effect of chomeur marking has to be added.

54. Reflexivization(48.b amended)

When subject and direct object are coreferential: $2 \rightarrow C$

Side Effects:

Lardil chomeur is converted to procliticizing ngedur

Mabuyag chomeur is assigned the Elative case.

Strong confirmation for Reflexivization as the Demotion Rule, $2 \rightarrow C$, emerges from a study of Mabuyag sentences where the coreferential nominals bear different grammatical relations from those in previous examples, e.g. 55.a, 56.a. The sentences 55.b, 56.b are provided for purposes of comparison.

55.a Ngath moegikaazi₁ nubika₁ sesthamayka-madhin.

1/ERG 2 3/DAT explain/PAST

'I explained the child₁ to him(self).'

1 2 3

55.b Ngath moegikaazi₁ mabaygka_j sesthamayka-madhin.

1 2 3/DAT

It follows from the Coreference Condition that, if Reflexivization does not apply to an initial structure such as the Mabuyag 58.a, then the result will be ill-formed, e.g. 58.b. Only when the direct object is demoted is the condition 59 satisfied, 58.c = 49.b.

58.a Moegikaazi_i moegikaazi_i matham-dhin.

1 2 V/PAST

58.b *Moegikazin nuyn matham-dhin.

1/ERG 2/AC V/PAST

58.c Moegikaazi nungungu mathamaydhin.

1 C V/R/PAST

The coreference Condition is a constraint on canonical structure. Constraints of this general type are needed in syntax independently of reflexive, as I show in section 17.3.2 below. It is desirable to replace constraints on individual rules by general constraints, such as the Coreference Condition.

17.3.1.4 The Parallel Condition on Gapping

Gapping provides even more confirmation of the existence of Demotion Rules. In any language, Gapping is applicable only if the conjunct clauses exhibit 'parallelism' in their structures, in an intuitively clear sense. At least a part of this parallelism requirement is the stipulation that each clause contain the same terms of grammatical relation. So if we happen to conjoin clauses with different terms present, then gapping is ill-formed:

59.a *John ate rice at night and Bill fish in the cabin.

59.b *Zon rays kubila __a, Bill waapi kebeninu purathadhin.

1 2 TIME V 1 2 PLACE V

This condition covers sentences where a verb like sing or eat has a direct object in one conjunct, but is intransitive in the other:

60. *John sang loudly and Bill __a ballad softly.

1 V MANNER 1 V 2 MANNER

Moreover, it is clear that parallelism in canonical grammatical relations is referred to. It is due to lack of derived parallelism that 44 below is ungrammatical.

61. *I gave flowers to my wife and John his girlfriend a mink coat.

1 2 3 1 2 C

If a reflexive pronoun in Mabuyag is a chomeur, then the parallelism condition automatically accounts for ill-formed sentences like 62.a, b below, where only one conjunct contains a reflexive; the English sentences 63.a, b, in contrast are grammatical.

62.a *Ngay ngawngu __a, Bill waapi pagadhin.

1/NOM C V I 2 V

lit: "I myself __ and, Bill a fish speared.'

62.b *Bill waapi __a, ngay ngawngu pagaydhin.

1 2 V 1 C V

lit: "Bill a fish __ and, I myself speared.'

63.a *I nominated myself and Bill __ his friend.

1 V 2 1 V 2

63.b *Bill nominated me, and John __ himself.

1 V 2 1 2

There is no absolute restriction blocking gapping in reflexive constructions, as the English sentences show. This confirms my claim that the restriction must relate to a difference in grammatical relation in Mabuyag between a reflexive pronoun and a non-reflexive.

17.3.2 Nitinaht: The Chain of Being Condition

In Nitinaht, the passive rule is usually optional, but it is obligatory under certain circumstances. For example, while 63, with both initial subject and direct object being third person animates, is grammatical in both the active 63.a and passive 63.b forms, 64, with initial third person subject and first person direct object is ill-formed in the active 64.a, but perfectly grammatical in the passive 64.b.⁶ (The morphemes ʔa 'Declarative' and ʔaq 'the' are enclitics.)

63.a Tc'ixwat-sa'ap ʔa (ʔoxw) bowatc ʔaq ʔōyoqw Ralph.

frighten (NOM) 1 AC 2

'The deer frightened Ralph.'

1 2

63.b Tc'ixwat-sa'ab't ʔa (ʔoxw) Ralph ʔoxwīt bowatc ʔaq.

V/PASSV 1 NOM/C C

'Ralph was frightened by the deer.'

1 C

64.a *Pixtcitl ʔa (oxw) John ʔōyoqw s(iy'a).

pinch 2

lit: 'John pinched me.'

64.b Pixtcitl'it s 'oxwīt John.

pinch/PASSV 1 C

lit. 'I was pinched by John.'

A condition can be attached to the Passive 65, to the effect that this rule is obligatory under certain circumstances, as for 64, but optional otherwise, as for 63.

65. Passive

Direct Object becomes Subject: 2 1

Side Effects for Nitinaht:

Verb and Chomeur marker: -'it.

On methodological grounds, we are dissatisfied with such a rule-particular condition (cf. Perlmutter's No-Condition Principle, 1971:128). Moreover, there is evidence internal to Nitinaht that the rule-particular condition misses a generalization, which emerges when we study the Dative Rule(3-2 Advancement): an indirect object can be optionally advanced to direct object: cf. (66.a, b). The derived direct object can then undergo the Passive optionally 66.c. (The Past Tense morpheme, ibt, abt, is an enclitic.)

66.a 'ōkwīl ibt 'a ('oxw) Mary bab'ō 'ōtsaxad John.

make (NOM) 1 2 BEN 3

'Mary made a basket for John.'

1 2 BEN 3

66.b 'ōkwīlip obt 'a ('oxw) Mary John bab'ō.

V/DATV 1 2 C

'Mary made John a basket.'

1 2 3

66.c ?ōkwīlib't t ?a (?oxw) John bab'ō ?oxwīt Mary.

V/DATV/PASSV 1 C NOM/C C

'John was made a basket by Mary.'

1 C C

There are circumstances where the application of both the Passive and Dative rules are obligatory. For example, where the initial structure subject is third person and the indirect object first person, it is ungrammatical if the two rules are not applied 67.a, or if only the Dative Rule is applied 67.b. A grammatical output in this circumstance results when the initial indirect object is advanced successively to direct object (Dative) and then the subject (Passive).

67.a *?ōkwīl ?a ?oxw Mary bab'ō ?ōtsaxad s(iy'a).

make 1 2 BEN 3

lit: 'Mary made a basket for me.'

3

67.b *?ōkwīlip ?a ?oxw Mary s(iy'a) bab'ō/

V/DATV 1 2 C

lit: 'Mary made me a basket.'

1 2 C

67.c ?ōkwīlip'īt s bab'ō ?oxwīt Mary.

V/DATV/PASSV 1 C

lit: 'I was made a basket by Mary.'

1 C C

If we set up a condition on the Dative to account for facts like these, then it must be the same condition as that attached to the Passive. To avoid this undesirable duplication, we are obliged to

establish the condition on cycle-final structure stated in 68.

68. The Chain of Being Condition in Nitinaht

No canonical term can outrank the canonical subject, on the chain-of-being hierarchy:

Highest: speaker (first person)

third person human

(Omitted details of the hierarchy are irrelevant to the examples discussed here.)

Condition 68 only makes sense if we assume the theory of grammatical relations provided by Relational Grammar, together with the Relational Annihilation Law. 67.a is automatically ill-formed according to 68, because the subject Mary is outranked by the indirect object s(iy'a) 'me' on the chain of being hierarchy. But as a consequence of the Relational Annihilation Law, Mary is a chomeur in 67.c. Therefore, this nominal is irrelevant for purposes of condition 68.

There are some constructions in Nitinhat which at first glance seem to violate the Chain of Being Condition. For example, in 69, the initial subject and indirect object are Mary and s(iy'a) 'I, me', respectively. It is obvious that the initial indirect object outranks the subject on the chain-of-being hierarchy, and also that the Dative and Passive rules have failed to apply. Our expectation is that 69 will be ill-formed, but it is in fact perfectly grammatical!

69. ?Ōkwīl ?a ?oxw Mary bab?ō ?ōtsaxad?it s.

make 1 2 BEN 3

'Mary made a basket for me.'

1 2 3

The crucial feature about 3 is that the Dative Preposition, normally just ʔōtsaxad here takes the suffix -ʔīt (with the vowel shortened by a regular rule). I suggest that the Demotion Rule 70 has applied:

70. 3 → C

Side effect for Nitinaht: C takes marker -ʔīt.

The formative -ʔīt used elsewhere in the language as a chomeur marker (in the Passive and Possessive ascension). If the phrase ʔōtsaxadʔit s in 69 is a chomeur, then it is not a canonical term, and so there is no violation of condition 68. The need for rule 70 in Nitinaht independent of Reflexives supports my claim that Spontaneous Demotion Rules must be permitted.

3. Dyirbal: The Absolute Condition⁷

In Dyirbal, the reflexive facts as reported by Dixon (1972:90) are possibly instances of Spontaneous Demotion of Direct Object. Sentences 71 exemplify this. (I have modified Dixon's transcription to conform to the conventions previously used in the present paper.)

71.a Payi yara pani-nyu.

NOM 1 come/Tense

'Man is coming.'

1

71.b Pala yuku pangkul yara-ngku puypa-n.

ACC 2 ERG 1/ERG hide/Tense

'Man hides stick.'

1

2

71.c Payi yara puypa-yidi-nyu.

NOM 1 hide/R/Tense

'Man hides himself.'

1

The subject is assigned nominative if the verb is intransitive (i.e. if there is no direct object), as in 71.a and ergative if the verb is transitive (i.e. if there is a direct object), as in 71.b. Moreover, the tense formative registers the absence versus presence of a direct object: cf. -nyu in 71.a but -n in 71.b. A reflexive construction resembles an intransitive construction in these respects, as 71.c demonstrates. (The verb in a reflexive construction takes -(yi)diy, -m(p)adiy, and the reflexive direct object does not appear overtly.)

My purpose in citing Dyirbal, however, is to show that this language contains Demotions other than for reflexive constructions. According to Dixon (1972:130), there are sentences in Dyirbal such as 72 below, containing conjoined clauses, where the second conjunct must contain an NP coreferential with an NP in the first conjunct.

72.a Ngaja_i nyina-nyu, (ngaja_i) pangum walmanyu.

1/NOM sit/Tense 2/NOM LOC get-up/tense

'I_i sat (down) and (I_i) got up.'

72.b Payi yara_i pani-nyu, (payi yara_i) pangkun jukumpiru palkan.

NOM 1 come/Tense NOM 2/NOM ERG 2/ERG hit/Tense

'The man_i came (here) and the woman hit (the man_i).'

1

1

2

72.c Payi yara_i pangkun jukumpiru palkan, (payi yara_i) paninyu.

NOM 2 ERG 1 hit 1 come/Tense

'The woman hit the man_i and (the man_i) came here.'

1 2 1

72.d Payi yara_i pangkul kupi-ngku, (payi yara_i) pangkun jukumpi-ru palkan.

NOM 2 ERG 1/ERG (nom 2) ERG 1/ERG hit/Tense

'The kupi brought the man_i, and the woman hit the man_i.'

1 2 1 2

There is a restriction on the coreferential nominals: they must both be absolutes, i.e. direct object in a transitive clause or subject in an intransitive clause.⁸

If the coreferential NPs are not both absolute, then one of two other conjoined constructions must be used. If the nominal in the first conjunct is a transitive subject and the nominal in the second is absolute, then the proximate enclitic -ngura is added to the second clause:

73. Pala yugu pangkul yarangu_i mata-n, (payi yara_i) waynyji-nguda.

NOM 2 ERG 1/ERG throw/Tense (NOM 1) V/PROX

'The man_i threw the stick and (the man_i) went-uphill.'

1 2 1

The most important facts for present purposes, however, are in sentences involving an absolute in the first conjunct and an initial subject of a transitive verb in the second. Such conjoined structures are well formed only if the second conjunct is put in what Dixon (1972:65) calls the -ngay Construction. In this, the subject, direct object, and verb are all inflected differently from the typical situation as exemplified by 71.b: instead, the subject is assigned the nominative, the (initial)

direct object the dative, and the verb the formative -ngay. For example, the regularly constructed second clause of 74.a results in an ill-formed sentence, but the -ngay Construction of 74.b gives a fully grammatical one. (I show initial grammatical relations here: I'll argue that the derived ones differ.)

74.a *Payi yara_i pani-nyu, palan jukumpil pangkul yaranku_i palkan.

NOM 1 V/Tense NOM 2 ERG 1/ERG V

'The man_i came (here), and (the man_i) hit the woman.'

1 1 2

74.b Payi yara_i paninyu, pakun jukumpil-ku (payi yara_i) palkal-nga-nyu.

1 V DAT 2/DAT (NOM 1) V/ngay/tense

'The man came (here) and (the man_i) hit the woman.'

1 1 2

I suggest that the derivation of 74.b involves the Demotion rule:

75. 2 → C

Side effects for Dyirbal: C takes Dative

V takes -ngay.

If this claim is correct, then the canonical grammatical relations of 74.b are:

74.b' Payi yara_i paninyu, pakun jukumpil-ku (payi yara_i) palkal-nga-nyu.

1 C/DAT 1 V

It can be seen that the coreferential nominals in 74.b are both absolutives in derived structure according to this hypothesis, and so the coreference condition on conjoining is met. Various facts about 74.b are also predicted correctly by my theory. The case marking of the

chomeur in 74.b is language particular and must be a Side Effect of the rule --but this is permitted by the theory already. The case of the subject in 74.b is nominative—just the case regularly assigned to the subject of a clause lacking a canonical direct object (cf. 71.a). The verb in 74.b selects the tense alternate regularly associated with verbs lacking a final direct object (cf. again 71.a).

There are other facts in Dyirban syntax which I have cited elsewhere (Klokeid, 1976) which support this analysis, and which I will not repeat here. My main purpose in citing Dyirbal here is to suggest that the existence of Spontaneous Demotion rules is not rare in languages of the world.

17.4 Reflexive Passive

While a reasonably strong case can be made for Spontaneous Demotion in languages like Mabuyag, at least one further analysis must be considered for Lardil, which I sketch briefly here.

I have assumed so far that the Passive in Lardil is the Advancement rule $2 \rightarrow 1$, a rule which eliminates the direct object from canonical structure. But another advancement rule has been proposed by Perlmutter and Postal, a copying advancement rule. The direct object advances to subject, but leaves a copy behind as canonical direct object. Suppose now that Reflexivization in Lardil merely says: When subject and direct object are coreferential, delete the latter and add -(y)i to the verb. This rule will apply not only to the regular reflexives, but also to sentences which have undergone the Copying Passive. In this way, the morphological similarities of passive and reflexive clauses are accounted for.

There are languages like English which have only the non-copying Passive, as well as languages like Spanish with both copying and non-copying Passives. If the above account is correct for Lardil, then it is a language with the Copying Passive but not the non-copying one.

17.5 Footnotes

1. My studies of various languages reported on in this section have been chiefly supported by the Australian Institute of Aboriginal Studies, the Canada Council, the National Museum of Man, the U.S. National Institute of Mental Health, and the American Philosophical Society.

I am especially indebted to David M. Perlmutter and Ephraim Bani for helpful discussions as I was collecting my thoughts for this section, though neither necessarily agree with the conclusions.

2. There are also constructions where non-clause mates are coreferential and one of them is a reflexive pronoun, as in so-called picture NPs. While some grammarians (e.g. Jackendoff 1972) attempt to account for these with the same rules governing coreferential clause mates, the matter is controversial, cf. Postal (1971). I make no claims here about such non-clause-mates, nor about those languages where it is traditionally said that ordinary reflexivization regularly extends to non-clause-mates, e.g. Japanese, Slavic.

3. By this, I do not mean uniquely marked, e.g. English reflexive pronouns are used as 'emphatics' in sentences like: I did it myself.

4. The Mabuyag facts have been supplied by Ephraim Bani. Out studies of Mabuyag (jointly and separately) have been generously supported by the Australian Institute of Aboriginal Studies.

5. It is possible to have an Elative pronoun serving as the initial Indirect Object, Benefactive, or other dependent, as in i, cf. 56.

i. Ngath waapi ngawngu pagadhin.

1/ERG 2 myself spear/PAST

'I speared a fish for myself.'

But this is not the reflexive, rather it is an emphatic. For instance, the emphatic pronoun does not have to be coreferential with a clause-mate:

ii. Zon_i waapi nungungu_{i,j} pagadhin.

1 2 himself V

'John_i speared a fish for himself_i, for him_j.'

iii. Zon waapi ngawngu pagadhin.

1 2 myself V

'John speared a fish for me.'

It is clear that, although Emphatic and Relative pronouns are morphologically identical, they are syntactically and semantically distinct.

6. I am grateful to the late Ms. Mary Chipps, Mr. and Mrs. Joe Edgar, Mr. Joshua Edgar, and the Rev. Martin Edgar for careful judgements concerning the relevant data. Essentially the same circumstances hold for several

related languages: Makah of Neah Bay (W. H. Jacobsen, 1977); Pacheenah, Tsashaht, Ucluelet, Kyquot, and Chiclisit. However, in modern Hesquiaht, it seems that this condition does not exist. I have never had the good fortune to study Hesquiat, but in reading materials from the Hesquiaht Cultural education programmes passed around at the 1975 Salish conference, I noticed several sentences which would be ungrammatical if translated literally into Nitinaht or any of the other languages cited above. Hopefully, the Hesquiaht materials will be released to the linguistic public before long.

7. This account contains a few simplifications which I believe do not affect the overall argument. (i) Nominative and accusative case, although distinct for some pronouns, are both uninflected forms for nouns. (ii) Other formatives may be found in place of the dative -ku and the verb marker -ngay. Dixon (1972) describes all these details.

8. Dixon (1972:131) cites examples which prove that grammatical relation, not case form, is the relevant notion. The coreferential nominals in (i) - (ii) differ in case form, but both bear an absolutive relation.

i. Ngaja₁ pani-nyu, (ngaykuna₁) pangkun jukumpi-ru palka-n.

1/NOM come/tense 2/AC ERG 1/ERG hit/Tense

'I came (here) and the woman hit (me₁).'

1

1

2

ii. Ngaykuna₁ pangkun jukumpi-ru palka-n, (ngaja₁) pani-nyu.

2/ACC ERG 1/ERG hit/Tense 1/NOM come/Tense

'The woman hit me and I came (here).'

1

2

1

CHAPTER EIGHTEEN

SUBJECT RAISING

18.1 Subject to Object Raising and Infinitive Clauses

18.2 Subject to Subject Raising

18.1 Subject to Object Raising and Infinitive Clauses

I claim that there is an ascension rule, Subject to Object Raising, in Lardil. That is, a subordinate subject ascends into the superordinate clause, taking on the relation of direct object. For example, this rule is held to play a role in the derivation of 1. The verb in the surface sentence 1.a, for example, kudi 'see', has the direct object tangan 'man/AC', and there is in addition a subjectless infinitive clause: yakur pulejid kun 'fish/INF catch/INF EV'. The logical subject of the infinitive clause is tangka 'man', as in the corresponding simple sentence 2. The ascension rule of Raising has, I claim, converted the downstairs subject tangka in 1.a into an upstairs direct object, i.e., tangan.

1.a Ngata kudi kun tangan, yakur pulejid kun.

1 see 2/AC 2/INF catch/INF

'I saw a man, catch a fish.'

1 2 2

1.b Ngata kudi kun ngimpeen, wangkud kun

1 see 2/AC go/INF

'I saw you go.'

1 2

i.c Ngata kudijadi niween, pathur thaltinkur.

1 see/NG 2/AC west/INF stand/INF

'I ~~didn't~~ see him standing there (in the west).

1 2

1.c Ngata medi kun niween, kangkud kun.

1 hear 2/AC speak/INF

'I heard him speak.'

1 2

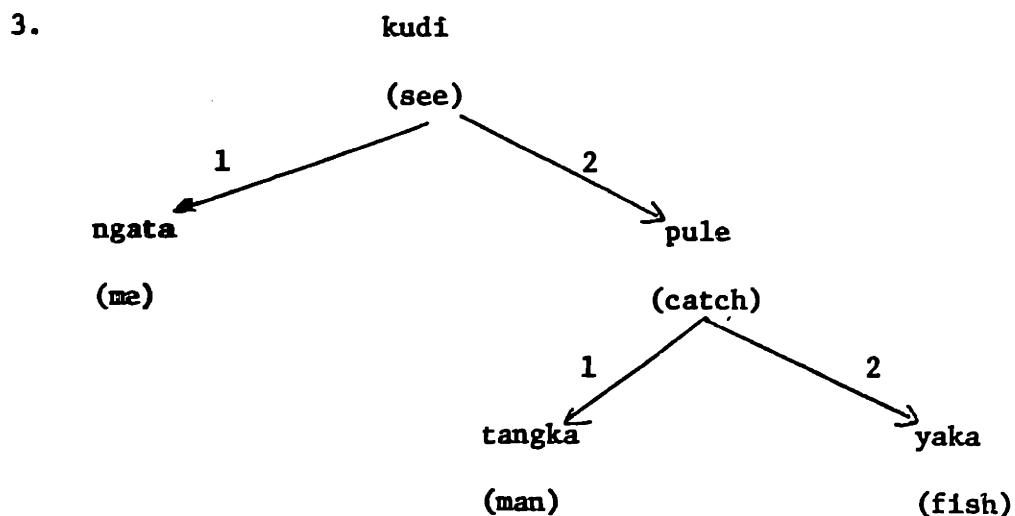
2. Tangka yakin pule kun.

1 2/AC catch/V

'A ~~man~~ caught a fish.'

1 2

Relational grammar predicts that just such a rule is possible. The class of ascension rules includes one in which a subject is the ascende: the initial structure which I assume for 1.a is 3. Here tangka is present as downstairs subject, not upstairs direct object; rather the direct object relation is held by verb pule 'catch'.



18.1.1 Relational succession

4. Tangka yakad pulethad, ngata jithur.

'If the man catches a fish, I'll eat (it).'

If the upstairs clause of 2 is placed in the Non-Future, then the noun phrase tangka, which is the logical downstairs subject, must inflect, just like an upstairs direct object, i.e., it is tangkangad, 'man/NF', as shown by 5, cf. also 6.

1 see/NF 2/NF 2/INF catch/INF 1 eat/F

'If I see the man catch a fish, I will eat (it).'

6. Ngata kudithad ngimpenad, jempekirajid ngithunkur ngawur, ngata

1 see/NF 2/NF kick/INF my/INF 2/INF 1

nethur ngimpenthar.

hit/F 2/F

'If I see you, kick my dog, I'll hit you.'

1 2 2 1 2

6.2 The transformational alternative

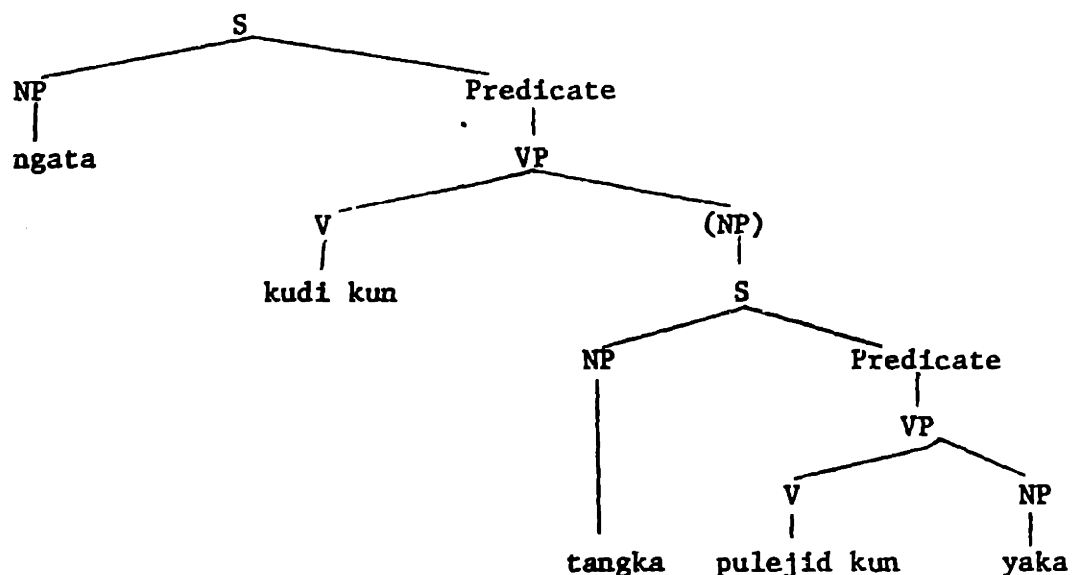
Recent suggestions by Chomsky, if transferred from English to Lardil, suggest a different analysis than the one presented above, an analysis which makes no recourse to grammatical relations, but rather relies on certain properties of a transformational grammar: specifically, a transformation will apply to any string that can undergo a proper analysis conforming to the structural description, provided no constraint blocks the rules. One such constraint is the Tensed-S Constraint, which I adapt here to the specifics of Lardil (omitting details from Chomsky's proposal that are not immediately pertinent).

7. Tensed-S Constraint (restated for Lardil)

No rule can involve X, Y in the structure X...(_A...Y...)... where _A is a clause inflected for tense or mood (i.e., other than -id 'Infinitive').

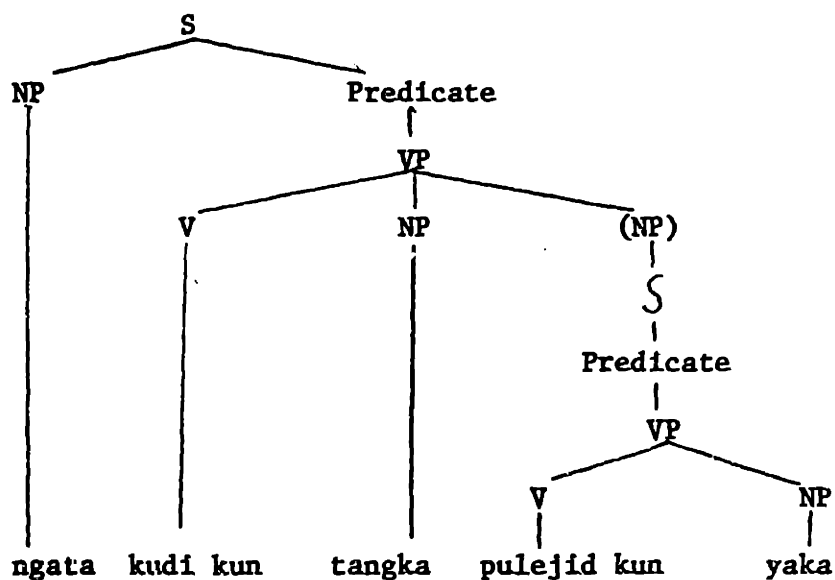
In this approach, both deep and surface structure configurations are the same for 1, viz. along the lines of 3 which I restate as 7 to conform to transformational theory. (It is irrelevant whether the parenthesized NP is in the Phrase Marker or not).

7. (= transformational phrase structure of 1)



Now, Subject to Object Raising cannot be stated as a transformation, because it will not involve the (necessary) movement of any constituent, but rather the change of structure above certain constituents, i.e., output of this rule would have to be 8:

8. (= transformational surface structure of 1, if Subject to Object Raising exists)




Because a rule converting 7 to 8 is disallowed by those working in that framework, it must make other provisions to account for the kinds of facts that I have discussed above. This is where the Tensed-S Constraint is of relevance.

If the subordinate clause in 7 were a Tensed-S, then no rule could apply so as to involve, say, the main verb kudi and the subordinate subject tangka. But because the subordinate clause here is an infinitive (and by definition not a Tensed-S), it is to be expected that such rules could apply to 7. Two rules of this type were mentioned in the presentation above: I restate them here briefly, giving a transformational version.

9.1 Case Marking:

a direct object takes the accusative case.

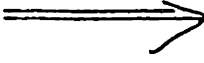
S.D. X - V-- NP - X

| | | | | |
|--------|---|---------|---|---|
| 1 | 2 | 3 | 4 |  |
| S.C. 1 | 2 | 3 + ACC | 4 | |

ii. Concord:

a direct object takes the affix category of an inflected verb
{call these categories 'TENSE' for simplicity}

S.D. X - V - TENSE - NP - X

| | | | | | |
|--------|---|---|-----|---|---|
| 1 | 2 | 3 | 4 | 5 |  |
| S.C. 1 | 2 | 3 | 4+3 | 5 | |

Consider first Case Marking 9.i. The main clause verb kudikun and the subordinate subject tangka in 7 meet the structural description of 9.i, and thus the correct form tangan 'man/AC' is generated:

10. (transformational derivation of 1)

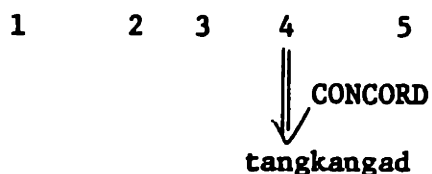
Ngata kudi kun tangka pulejid kun yaka.



If the main verb is tensed, as in 5, then concord 9.ii applies to the subject of a subordinate infinitive.

11. (transformational derivation of 5)

Ngata kudith-ad tangka yakur...



This is the extent to which an approach along the lines of Chomsky's 'Conditions on Transformations' will work. The deficiency of this analysis lies primarily in the false prediction that the subject of any infinitive will be subject to the rules of 9. It so happens that infinitives functioning as time adverbs (e.g., 12) are impervious to concord, and Case Marking also applies incorrectly.

12.a Ngata wii wangalkin, ngithunin kanthan kuparijid kun maarnkur.

1 tr im 2/AC my/AC 1 make/INF 2/INF

'I trimmed a boomerang, while my father made a spear.'

1 2 1 2

12.b Ngata putaa tulkiyaa, ngithunin kanthan waangkur.

1 after ground/go my/AC 1/AC go/INF

'I was born (lit. 'went to ground'), after my father left.'

12.c Ngata jilathur njithur, ngimpeen pulejid yakur.

1 drill/F 2/F 1/AC catch/INF 2/INF

'I'll drill a fire, while you catch fish.'

1 2 1' 2

In 12.a, the subject of the infinitive clause is ngithunin kanthan 'my/AC father/AC'. The accusative case seems at first glance to be predicted by the Case Marking transformation 9.1, because it follows a verb wil 'trim'. There is a problem, however, because another NP intervenes, namely the main clause direct object wangalkin 'boomerang/AC'. It seems that a variable must be inserted into the structural description of case marking:

13. (Revised S.D. for 9.1)

S.D.: X - V - X - NP - X

Moreover, this rule must be permitted to apply iteratively within a clause. These modifications raise a host of questions, but since these are really contingent on how case marking is actually expressed, something dealt with later, I will not consider these issues here. What I wish to show here is that regardless of whether such modifications are made or not, ungrammatical sentences result. For example, the subordinate subject in 14 is in the accusative, even though the upstairs verb here is ngeerne 'sleep' which is an intransitive verb: it can have a dependent of location, but in the locative, not accusative, case.

14. Ngata ngeerne, ngithunin kampinin ruulijid.

1 sleep 1/AC play/INF

'I slept, while my son played.'

1 1

No matter how the various restrictions and extensions on 9.1 are stated, this rule cannot apply to a noun phrase following a verb such as ngeerne.

I conclude that the (non-ascended) subject of an infinitive is assigned the accusative case, regardless of any other considerations in the sentence, and is not due to the operation of 9.1 across clause boundaries; rather this rule and the tensed-S constraint are simply irrelevant.

Let us now see how Concord 9.11 affects infinitives functioning as time adverbs. The prediction made by the transformational framework is that concord will copy the tense of the main verb onto the subject of a subordinate infinitive clause. But this prediction is falsified by sentences like 12.c. In that sentence, the main verb is future, jilathur 'drill/F', but the subordinate subject is nevertheless accusative: ngimpeen 'you/AC'. Thus Concord cannot apply freely across clause boundaries.

The circumstances under which Concord is applicable or blocked are as follows (stated consistent with the transformational view of the relevant sentences): when the upstairs verb is a transitive verb, but nevertheless lacks a direct object (e.g. 1), then Concord, looking blindly for an NP after the verb, applies to the subordinate subject; when the upstairs verb is intransitive (e.g., 12.b) or a transitive one with overt direct object (e.g., 12.c), then Concord does not apply to the downstairs subject. This condition is in no way a consequence of the tensed-S Constraint or any other principle of Transformational Grammar--it has to be stated ad-hocly in that framework.

In contrast, the situation with respect to infinitival time adverbs, case marking, and concord, follows from general principles of Relational Grammar.

In the set of sentences first considered (e.g. 1), the upstairs verb has no direct object (cf. 3 and also 7). However, there is a clause present in the proposed initial structure 3 and 7) that on semantic grounds can be taken as direct object. In contrast, the second set of sentences, e.g., 82, either have an overt nominal direct object in the main clause, or else have an intransitive verb, i.e., a verb that does not take a direct object. This correlates with the semantic role of these infinitives as clauses of time.

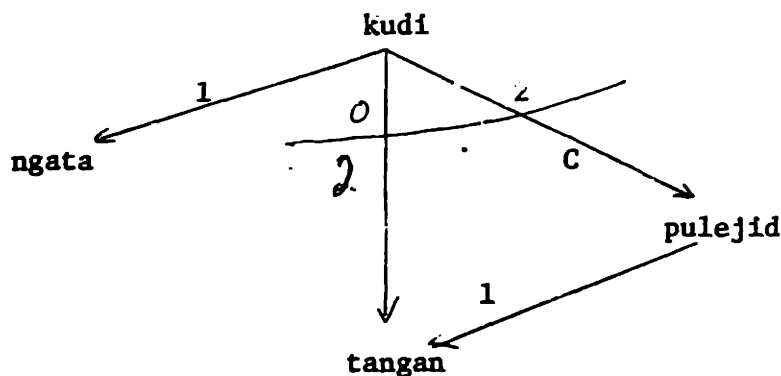
Given the grammatical relations of the two infinitive types, direct object versus impure term (time expression), a general principle of Relational Grammar, due to Paul M. Postal and David M. Perlmutter, predicts which can fall in the domain of raising and which cannot:

15. Host Limitation Law

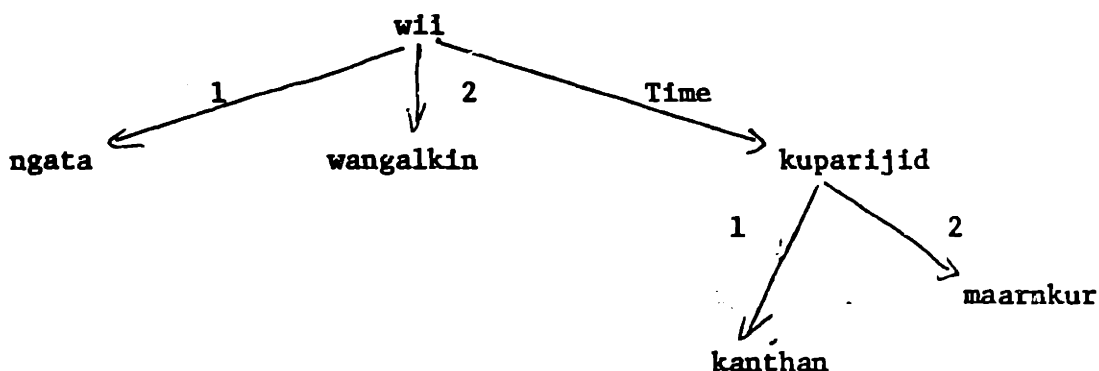
Only a term can host an ascension.

Thus, the infinitive in 3 (underlying 1.a) can host an ascension, being a direct object, but the infinitives of 12 cannot, because they are impure terms. The derivation of 16.a, i.e., 1.a, then, is permitted by 15, but given 17 as the initial structure of 12.a, the ascension rule cannot apply, so the classic grammatical relations of 12.a are as indicated in 16.

16. (Subject to Object Raising, cf. 3, 1.a)



17.



Now, the classic direct object in 16 is available for case marking as a direct object, thus yielding the correct surface form tangan 'man/AC' of 1.a. The NP tangka in the structure 16 is also available to undergo Concord as a classic dependent of the verb. This is what has happened in the derivation of a sentence like 5.

But in the infinitives where ascension is blocked 17, 12, the subject of the infinitive takes the accusative case regardless of whether there is a verb present that can otherwise trigger accusative marking of a noun 12.a or not 12.b. Furthermore, because Concord applies only to classic dependents of the tensed verb, the infinitival subject in a structure like 17 won't undergo Concord (as in 12.c).

In this way, relational grammar handles the syntax of infinitives on a principled basis, whereas transformational grammar requires ad-hoc statements.

18.1.3 On infinitives

In sections 18.1.1 and 18.1.2, I assumed that a clause with the verb in -id is tenseless, i.e., infinitival. No justification for this has been given, but since it might be called into question, I present here my one syntactic argument. (A discussion of the semantics of the time of infinitives can be found in Chapter Twenty-Four.)

Main clauses may be tensed 18 or tenseless 19. I have argued in Chapter Twelve that tenseless sentences like 19 result from the optional, but usually preferred, deletion of the non-future tense. Thus 19 is derived from 18.a by Tense Deletion.

18. Tensed main clauses

a. Non-Future

Pidngen jithad kun wurtaljingad.

1 eat/NF 2/NF

'The woman ate meat.'

1 2

b. Future

Pidngen jithur wurtaljiwur.

1 eat/F 2/F

'The woman will eat meat.'

1 2

19. Tenseless

Pirngen jitha kun wurtaljin.

1 eat 2/AC

'The woman ate meat.'

1 2

Now, the surface case taken by the chomeur (agent phrase) in a passive differs, depending on whether the clause is tensed or tenseless. In a tensed clause, the chomeur case is the genitive 20, but in a tenseless clause, the chomeur marking is instead the accusative 21, i.e., the same as the case of the direct object in a tenseless clause 19. (The verb jitha has a cuppletive passive wuyi.)

20.a Wurtal wuyithad kun pidngenngan.

1 eat/R/F C/GN

'The meat was eaten by the woman.'

1 C

20.b Wurtal wuyithur pidngenngan.

1 eat/R/F C/GN

'The meat will be eaten by the woman.'

1 C

21. Wurtal wuyikun pidngenin.

1 eat/R C/AC

'The meat was eaten by the woman.'

1 C

The exact mechanism for case assignment is not at issue here (see Chapter Twenty-Three for a couple of alternatives). The crucial thing is

to see the difference in case for chomeurs in tensed and tenseless clauses, for in Infinitive clauses, the inflection of a chomeur in the passive is not the genitive of a tensed clause, but rather it is identical to the inflection taken by the active direct object in an infinitive. This is the same as in tenseless clauses like 91. The pattern for infinitives is exemplified by the active-passive pair 22, with the infinitive inflection of direct object and chomeur (agent) underlined.

22.a ACTIVE

Ngata kudi kun yarpujin, ngimpenkur mangkurtangkarpejid kun.

1 see 2/AC your/INF 2/INF bite/INF

'I saw the snake, bite your child.'

1 2 2

22.b PASSIVE

Ngata kudi kun ngimpen maanangan, peyijid kun yarputhur.

1 see your/AC 2/AC bite/R/INF C/INF

'I saw your child, be bitten by a snake.'

1 2 C

Thus I conclude that these clauses are indeed tenseless, as the name infinitive implies.

18.1.4 Raising versus Equi

In either the relational or transformational framework, an alternative analysis to the Raising analysis for sentences like 1 does exist, namely one involving Equi (coreferential nominal deletion). In this analysis,

the initial structure for 1.a is not 3 but rather 23 below. This structure contains both an upstairs direct object and a downstairs subordinate subject; these two are coreferential and the latter is to be deleted by virtue of this relationship with the former.

23. (alternative initial structure for 1.a)

Ngata kudi kun tangka_i (tangka_i yaka pulejid kun).

1 see 2

1 2 catch/INF

↓
EQUI
 \emptyset

It can be seen that this alternative handles the Case Marking and Concord facts equally as well as the Subject to Object Raising analysis.

The main objection to this Equi analysis, on the basis of available facts about Lardil, is that, as we have already seen in Chapter Twelve, there is already an Equi rule in the language applying to the same structure, but with a different output. Specifically, when the independently needed Equi rule applies, the downstairs clause must agree in case with the trigger of the deletion. But this agreement never takes place in infinitive clauses, and so I conclude that some other rule (such as Subject to Object Raising) must be responsible for the syntax of infinitives.

18.1.5 Some unanswered questions

This brief essay cannot be said to have shown conclusively that Subject-to-Object Raising must be accepted in the grammar of Lardil. Nevertheless, a stronger case for that analysis has emerged from the available facts than for any alternative. In this subsection, I

briefly outline a few of the areas which ought to be investigated in future research on Lardil.

18.1.5.1 Word order

If there is, as I claim, a rule of Subject-to-Object Raising, then it is possible that the classic direct object, e.g., tangan in 1.a, can be 'scrambled' within the upstairs clause but NOT within the downstairs clause, as in the unattested sentence:

24. (Unattested)

??Ngata tangan kudi kun yakin pulejid kun.

(cf. 1.a)

The transformational alternative, sketched in section 18.1.1, predicts that any scrambling possible of the NP tangan in 1.a should be within the subordinate clause only on the assumption that only dependents of the same governor can be scrambled among themselves.

25. (Unattested)

??Ngata ^Ykudikun _^pulejid kun tangan yakur.

(cf. 1.a)

However, we do know that the putative classic direct object nominal can function as Topic of the upstairs verb, as in the attested sentence 26.

26. Tiin mangarta ngithun thapujikan kudithad, pulejid yakur.

TP/2 my 1/GN see/NF catch/INF 2/INF

'This child (is the one) my brother saw, catch a fish.'

This fact will be an argument in favor of the Raising hypothesis if it can be shown that, in general, only a (central) dependent of a verb can be the Topic of that verb. I believe this to be correct.

18.1.5.2 Passives

Since the rule of Subject-to-Object Raising creates a derived direct object, we would anticipate that the NP tangka in 1.a can undergo the advancement rule passive:

27. (Unattested)

?? Tangka kudii kun yakur pulejid kun.

(cf. 1.a)

18.1.5.3 Domain of Raising

There are sentences like 28 below which look as if they are derived in the same way as 1. If so, which main verbs permit Subject-to-Object Raising?

28. Ngata keeli kun nganikininangan, mungkelejid kun.

1 wait that man/AC spear-fish/INF

'I'm waiting for that man spear fishing.'

1

18.2 Subject to Subject Raising

It has been observed by Postal (1974) that languages which have a rule of Subject to Object Raising also for the most part have a rule of Subject to Subject Raising. If the presence of Subject to Object Raising in Lardil can be maintained, then one ought to look for Subject to Subject Raising in that language as well. The present section discusses what could be Subject to Subject Raising in Lardil.

Consider the following sentences 29, which contain kunaa 'be, sit' in addition to the other verb.

29.a Ngata padkithur kunaathur nyithur.

1 chop/F be/F 2/F

'I'll keep on chopping firewood.'

1 2

29.b Ngajarta ngukun kurtama kunaa kun?

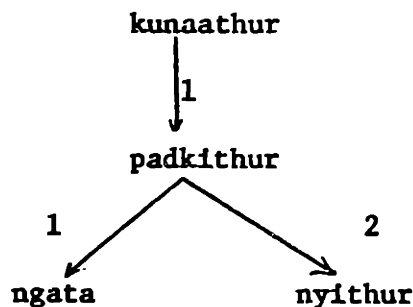
1 2/AC drink be

'Who is drinking the water?'

1 2

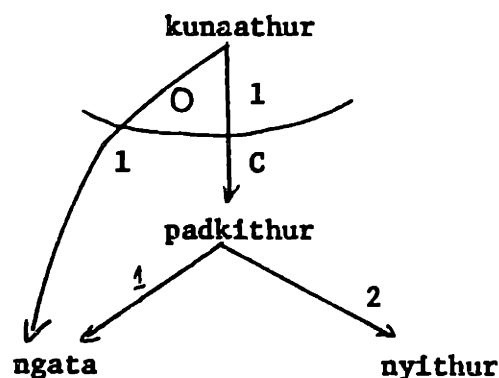
It is a possibility that the initial subject of 29 is a verb with the governing verb kunaa, as in 30.

30. (a possible initial structure for 29.a)



The sentence 29.a is then derivable by ascending the downstairs subject. By the Relational Succession Law, that nominal becomes the upstairs subject. The remains of the downstairs clause have to be split up: the verb concatenates with the governing verb, followed by the downstairs direct object. This derivation is shown by 31.

31.



It seems unusual that the chomeur clause should be broken up. This kind of derived structure is in fact essentially like that created by Conjunction Reduction, i.e., a rule which takes coordinate clauses and eliminates repeated constituents among the conjuncts (see Chapter Fourteen). Non-identical constituents with the same grammatical function end up strung together in derived structure, as exemplified by 32.

32. Niya yuud terlte-netha ngithunin kadmun-remanin.

| | | |
|---|-----------|------|
| 1 | broke/hit | 2/AC |
|---|-----------|------|

'He knocked out (lit. broke-hit) my tooth.'

| | |
|---|---|
| 1 | 2 |
|---|---|

Indeed, I cannot marshal any facts to support the existence of Subject-to-Subject Raising in sentences like 29. I know of no other construction in Lardil where one could plausibly suggest a rule of Subject-to-Subject Raising. Future study of the language should include a search for candidates, as well as relevant arguments, for and against.

CHAPTER NINETEEN

OTHER RELATION RULES

19.1 Goal to 2 Advancement and Locative to 2 Advancement

19.2 Instrument to 2 Advancement

19.3 The Problem of 3 to 2 Advancement

19.4 Quantifiers

The first two sections deal with advancements to direct object. The next three sections are about the rules of 3 to 2 Advancement (19.3), Quantifier Float (19.4), and Dummy Subject Insertion (19.5), none of which seem to be in Lardil.

19.1 Goal to 2 Advancement

The verb pirti 'arrive' takes a goal dependent in the Accusative. Evidently, this dependent has advanced to direct object: this is why it is assigned the accusative.

1. Muthan nathankaradin ngani pirti.

big/AC camp/AC that arrive

'They arrived at a big camp.'

Supporting evidence for this lies in the fact that the initial goal dependent can subsequently advance to subject, especially when the initial subject refers to a disease. Examples have already been given in Chapter seventeen, e.g.:

2. Ngata pirtifi kun thudungkan.

1 V/R C/AC

lit. 'I was arrived at by a cold.'

Some verbs take a locative expression in the Accusative 3.

3. Ngata tiwadku mirnkemirnke kun tiinin parngan.

1 sit 2/AC

I sat on that stone yesterday.

1 2

These are manifestations of Locative to 2 Advancement. Apparently these verbs do not passivize, but the initial Locative can bear the Topic overlay, which is restricted to classic terms.

4. Tiin parnga ngithun mirnkemirnkethad tiwadkungad.

TP/2 sit/NF

'This stone (is the one) I sat on yesterday.'

TP/2 1

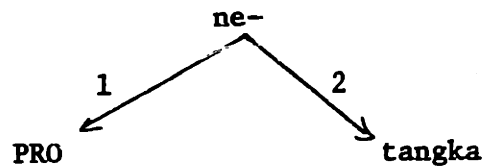
19.2 Instrument to 2 Advancement

An Instrument dependent advances under very restricted circumstances. There is a nominalization, marked with the affix -(V)n, which refers to an entity that can be the initial subject, for instance tangka-neen (man/kill/Nominalizer) 'man-killer' can refer to a man or animal that kills people. (The initial direct object can be incorporated, as in this example, or omitted).

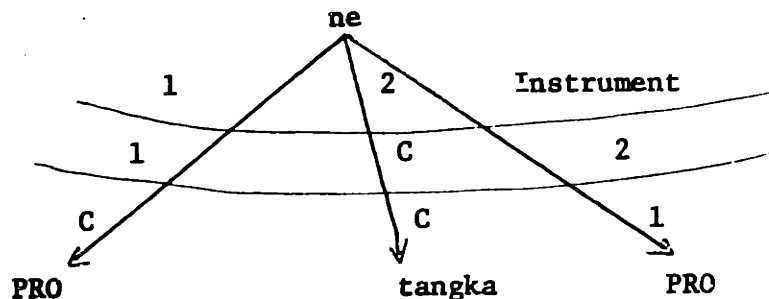
A nominalization can also refer to an entity that can be the initial instrument: as in tangka-ne-yi-n (man/kill/R/Nominalizer) 'man killing instrument'. Evidentially, a nominalization in general refers to an entity that can be the canonical subject, which may be either the initial subject, as in tangka-neen, or the initial instrument, which has advanced to direct object and then to subject, as in tangka-ne-yi-n.

We can see the advancement to subject recorded in the verb, i.e. the registration affix -yi. Networks for the two nominalizations are as follows:

5.a Tangka-ne-en



5.b Tangka-ne-yi-n



19.3 The problem of 3 to 2 Advancement

Consider the pairs of sentences below.

6.a Ngata kupari kun wangalkin ngithunmari muthamari thapujimari kun.

1 make 2/AC my/put big/put brother/put

'I made a boomerang for my big brother.'

1 2

6.b Ngata kupari kun ngithunin muthan thapujin wangalkin.

1 make my/AC big/AC brother/AC

'I made my big brother a boomerang.'

7.a Ngata wuthur tiinkur wangalkur ngimpenmarithur thaputjimarithur.

1 give/F this/F 2/F your/put/F brother/put/F

'I'll give this boomerang to your brother.'

1

2

7.b Ngata wuthur ngimpenthar thapujiwur tiinkur wangalkur.

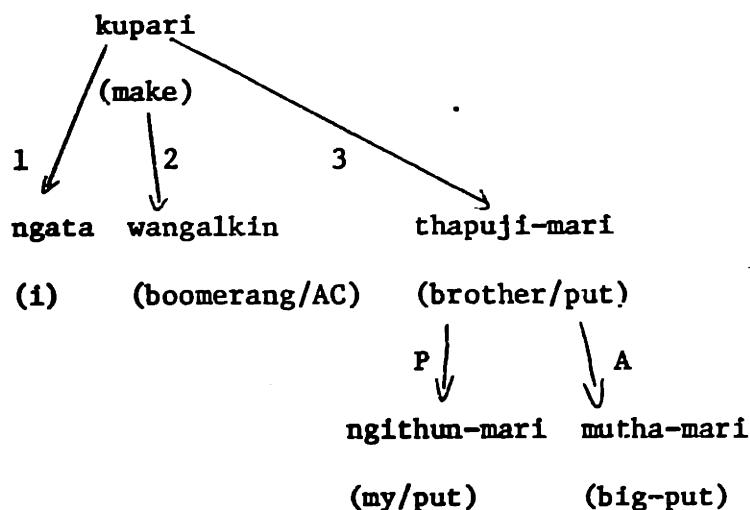
1 give/F your/F brother/F

'I'll give your brother this boomerang.'

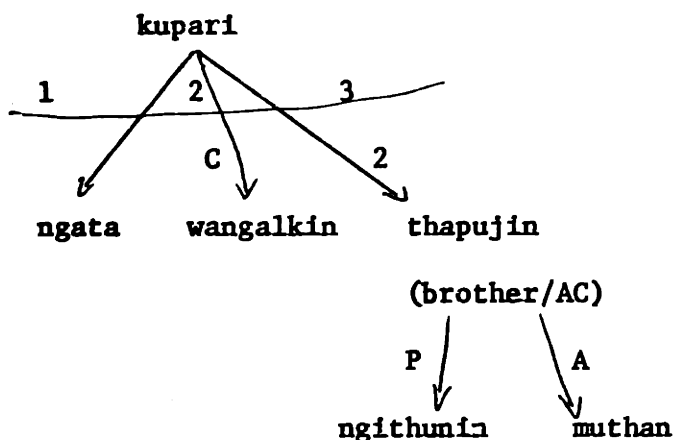
The verbs in English corresponding semantically to kupari and wutha are 'make' and 'give', resp. These verbs belong to the classes which permit 3 to 2 Advancement in English: the beneficiary of a creation verb like 'make' (after advancement from Benefactive) and the recipient with a transfer verb like 'give' are indirect objects and can advance to direct object. Lardil has something similar: in 8, 9, the a sentences each consist of a subject, a verb, a direct object in the accusative (or tense) and a nominal with an affix -mari 'put'. The latter nominal is the one I have already identified as the indirect object. The b sentences paraphrase the a sentences, but each b sentence has a slightly different form in comparison with the a version. The word order and case marking are different: the indirect object in -mari in a follows the direct object, but lacks -mari in the b sentence, taking instead the accusative case (or tense replacement). Also the indirect object of a now finds itself in the b sentence in front of what was the (initial) direct object in a. (However, this difference in word order is not fixed.)

3 to 2 Advancement would seem to account for this relationship. Assume 6,a to have the initial structure of 8.a below.

8.a Hypothesized initial structure of 6a, b



8.b Hypothesized canonical structure of 6.b



Then 29.a is also essentially the canonical structure of 6.a: thus the direct object takes the accusative case and the indirect object takes -mari 'dative'. To derive 6.b under this hypothesis, the indirect object of 8.a is advanced to direct object: thus the case-marking rules will assign it the accusative, this being the case of the direct object (as in 6.a). The erstwhile direct object becomes a chomeur by the RElational Annihilation Law. The place for chomeurs in Lardil is generally at the end of the sentence, and this is where it is in 6.b. (The case of this chomeur is the accusative; it is assigned Accusative case

in accordance with the Chomeur Marking Law.)

While this account makes the relationship between the a and b sentences of 6-7 look just like that mediated by the universal rule of 3 to 2 Advancement, there are good reasons to doubt this analysis and the relations shown in 8.a, b.

Firstly, if wangalkad in 8.b is a chomeur, it should not be possible to bear the Topic overlay. But this is a false prediction, because either of the accusative nominals in 6.b, 8.b can be Topic (I have substituted tiinta 'this man' in 9.a for the phrase ngithun mutha thapu, to get a more felicitous sentence.), as can the direct object of 6.a, 8.a, shown in 9.c.

9.a Tiinta ngithun kuparithad kun wangalkad.

TP 1/GN make/NF

'This man (is the one) I made a boomerang for.'

TP 1

9.b Tiin wangal ngithun kuparithad kun ngithunad muthangad thapujingad.

TP 1/GN make/NF

'This boomerang (is the one) I made for my big brother.'

TP 1

9.c Tiin wangal ngithun kuparithad kun ngithunmari muthamari thapujimari.

TP 1/GN make/NF my/put big/put brother/put

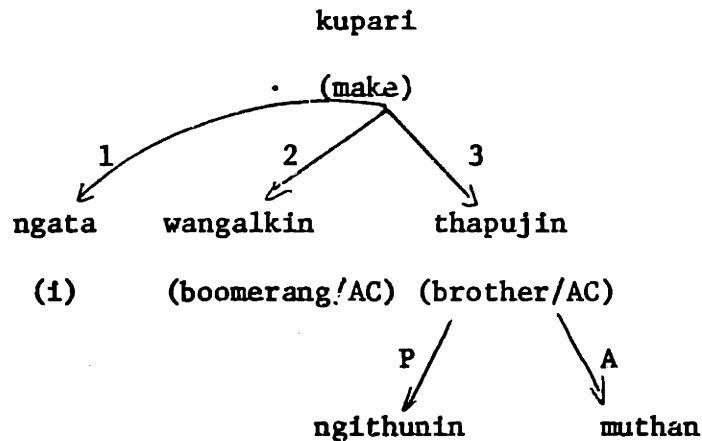
'This boomerang (is the one) I made for my big brother.'

TP 1

The considerations based on Topics imply that all the nominals in the accusative in 6.a and 6.b are terms. That is, 9, not 8, shows the

correct canonical relations for 6.b.

9.



19.4 Quantifiers

In Lardil, the quantifier malthuri 'all' only rarely, if ever, forms a constituent with the nominal that it binds. Sentence 10 is a possible example.

10. Wuyinji tangka malthuri nganikinin wirniin.

give/RECIP 1 all that/AC 2/AC

'The people give all the food to one another.'

1

2

More typically, malthuri is separated from the nominal it binds, as in 11 and 12.

11.a Tiin jika mangarta yuud malthuri jitha yakin.

that may 1 PRF all eat 2

'Those many children have eaten up all the fish.'

1

2

11.b Niya malthurii nymed jinymed wernengkur.

1 all/R/ADM eat/ADM 2/F

'He might eat up all of the food.'

1

12.a Tiin jika mangarta yuud malthuri puti.

1 all fall

'All the many children fell.'

1

12.b Ngakulmu malthuri kangka kun.

1 all speak

'We all spoke.'

1

For example, in 11.a, malthuri-i 'all/R' precedes the verb jitha 'eat' but it binds the direct object yakin 'fish' which follows the verb. 11.b is identical to 11.a in this respect. The separation of the quantifying expression from the noun phrase it binds is not so obvious in 12.a, b, just going by the word order.

However, if the word order of 12.a were affected by a rule such as old information shift (see chapter 22), then the subject of 12.a tiin jika mangarta 'those many children', would move to the end of the sentence, but the quantifying expression malthuri would remain in front of the verb.

Some other things must be noted concerning 11, 12. The quantifying expression that binds a direct object 11 differs in form from one binding an intransitive subject 12: the former is malthuri-i the latter.

malthuri. (No instances are known where malthuri(i) binds anything other than a direct object or intransitive subject.) This difference corresponds to the difference in form between an active verb, e.g., padki 'chop' and the passive or reflexive form, padkii 'chop/R'. In form then, the variation between malthuri and malthurii resembles verbal inflection; hence I gloss malthuri 'all' and malthurii 'all/R'. The resemblance to verbs is even more extensive: malthuri(i) may take any tense or mood inflection, matching the verb of the clause, and when it does so, there is evidence of the conjugation marker, e.g., malthuri-i-ny-mer 'all/R/Conj. Marker/ADM' in 11.b. When there is a clitic which normally attaches to the verb, it appears just once: a proclitic before malthuri(i), e.g., yuud malthurii jitha 'PRF all/R eat' in 11.a; and an enclitic after the verb, e.g., malthuri kangka kun 'all speak Eventive'.

As one account of these observations, consider the following hypothesis (one which according to relational grammar is possible in a natural language). An alternative will be considered shortly.

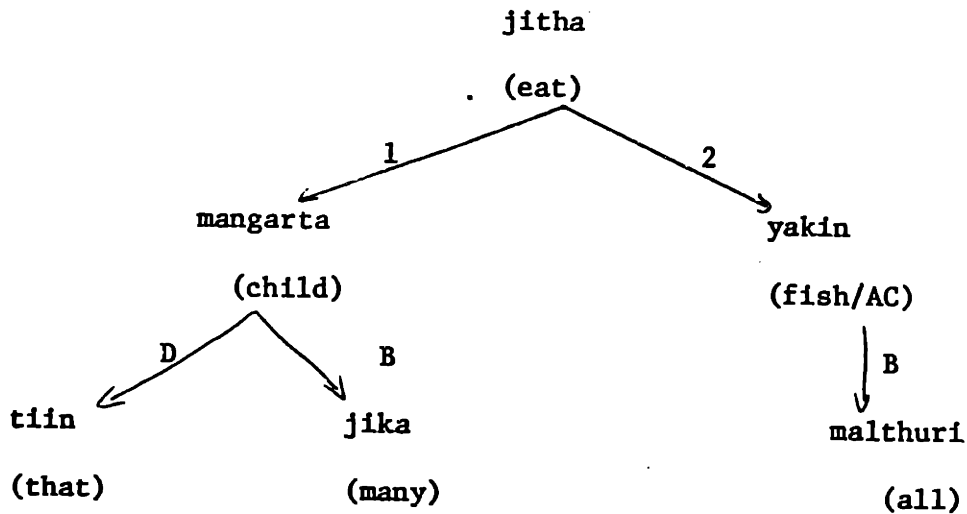
13. Hypothesis A

In initial structure, the quantifying expression malthuri is a dependent of the nominal which it binds. The surface sentence is derived by an Ascension rule, Quantifier Float (a rule suggested by Perlmutter and Postal).

Under Hypothesis A, the initial structure of 11.a is 14. The initial direct object is taken to consist of the noun yaka 'fish' bound

by the quantifying expression malthuri 'all'.

14.



The ascension rule of Quantifier Float ascends the direct object nominal. The quantifying expression malthuri is, by the Relational Annihilation Law, a chomeur.

Let us see just which aspects of the surface form of 11.a are predictable consequences of Hypothesis A. The case form of direct objects is accusative and so yakin (fish/AC) is expectable. Moreover, the position of yakin in 11.a, i.e. following the verb, is just the usual position for direct objects. Provided we add to the rule of Quantifier Float the provision that a chomeur quantifying expression attaches before the verb, then the separation of malthuri and yakin in 11.a is also anticipated.

But there are several aspects of sentences in 11, 12 that Hypothesis A does not predict. Whereas a chomeur created by an ascension otherwise takes case according to the Chomeur Marking Principle, the quantifying expression malthuri(i) does not do so. Instead, it takes the verb ending -i if the nominal it binds initially is a direct object. This ending cannot be held to be an allomorph of the accusative case because

of the way it interacts with tense concord. Whereas the accusative case is replaced by the tense of the verb, for malthurii that tense is added, with -i being retained. Furthermore, the particular shape of the inflections taken by malthuri(i) are according to the verbal not nominal paradigm. For 11.a, these are:

| | Root | Marker | Admon. |
|-------------------------|----------------|--------|--------|
| verb: | ji | -ny | -med |
| quantifying expressing: | malthuri(i)-ny | | -med |
| noun: | werneng | | -kur |

Verbs have a distinct Admonitive ending -med(a) which is added after the Marker, phonetically -ny here. Nouns do not distinguish the Future and Admonitive categories, both having the alternant -kur after a nasal; nouns have no Marker.

In several respects for which definite statements can be made about Lardil, then, malthuri has the properties of a verb not a nominal. None of these properties are predicted by Hypothesis A, but rather require additional specific statements in the grammar of Lardil.

While a wider range of facts might support hypothesis A, the unsatisfactory treatment that the available information receives encourages consideration of an alternative:

15. Hypothesis B

The quantifying expression malthuri is a verb, and when it co-occurs with another verb in a surface clause, it is the result of a rule of Conjunction Reduction.

The rule of Conjunction Reduction which is needed independently

in Lardil (see Chapter Fourteen) combines coordinate clauses with like subjects, deleting duplicate occurrences of the subject and placing both (or all) verbs together. For example, 16.a is converted by this rule to 16.b. The verbs in a sentence undergoing conjunction reduction must be identical in tense, but only one occurrence of a clitic will appear in the output.

16.a Ngata mathur nɣithur. Ngata thaathur.

1 get/F 2/F 1 return/F

'I'll get firewood. I'll return.'

1 2 1

16.b Ngata mathur thaathur nɣithur.

1 get/F return/F 2/F

'I'll get firewood and return.', 'I'll fetch firewood.'

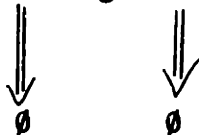
1 2

If the underlying representation of sentences 12.b is taken to be 17, then this rule of Conjunction Reduction will correctly produce 12.b:

17. ?Ngakulmu malthuri kun. Ngakulmu kangka kun.

Conjunction

reduction



12.b Ngakulmu malthuri. kangka-kun.

I hasten to point out that the sentence ?ngakulmu malthuri kun is not one that I can vouch to be grammatical. Further investigation of this problem is called for.

CHAPTER TWENTY

INCORPORATION

20.1 Kinship and desiderative incorporation

20.2 Goal and source

20.3 Footnotes

20.1 Kinship and desiderative Incorporation

Two kinds of verb that govern direct objects can be paraphrased by incorporation of a dependent. Compare the verb janijani 'look for, seek, want, in la with the bound version -jani in (b). In (a), the direct object follows the verb in the accusative case, while in (b), it is incorporated into the verb, taking no separate case ending.

1. a. Ngithun kantha janijani kun karnjinin.

my 1 seek 2/AC

'My father sought (i.e., hunted) wallabies.'

1

2

- b. Ngithun kantha karnjin-jani kun.

1 2/seek

'My father sought wallabies.' (=a)

1

2

2. a. Ngata janijani kun ngukun.

1 seek 2/AC

'I'm looking for water.'

- b. Ngata nguku-jani kun.

1 2/seek

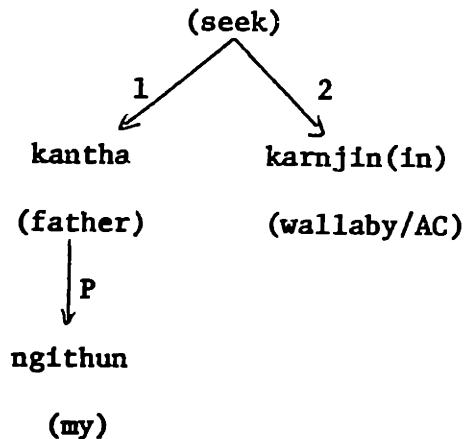
'I seek/need/want water.'

1

2

It is obvious that the direct object of -jani incorporates into the verb. A reasonable hypothesis is that a sentence in -jani like 1b has as its initial structure the corresponding sentence in janijani, as 1a:

3. (jani)jani



The verb medji 'call (by a kinship name)' plus kin term seems to receive a similar paraphrase in the bound version -ji with incorporated kin term:

4. a. Nyingki medji kun ngithaan wungun.

1 call 2/AC wife's-brother/AC

'You call me wife's brother.'

1 2

b. Nyingki wungu-ji kun ngithaan. (=a)

1 2/AC

Here, it is not the direct object that is incorporated, but rather the nominal which elaborates on the act designated by the verb. Some additional examples are in (5).

5. a. Nyingki penyin-ji kun tiininangan.

1 **this/2/AC**

'You call this person penyin.'

1 **2**

- b. Niya jempe-ji kun ngithaan.

1 **2/AC**

'He calls me jempe.'

1 2

There sentences show that incorporation is not restricted to terms.

There is a semantic difference between the unincorporated and incorporated versions. The incorporated variant tends to have a distinct meaning for certain kin terms:

6. a. **Kiin pidngen medji kun niween yukadpan.**

that 1 call 2/AC husband/AC

'That woman calls him husband.'

1 **2**

- b. Kiin madngan pidngen kiinin madnangan yukadpa-ji kun.

1 woman that/AC 2/AC husband/call

'That girl(-woman) loves that boy.' (ʔa)

1 **2**

(lit. 'That girl calls that boy husband.')

This difference comes across clearly in instances where the incorporated noun cannot literally refer to a kinship relation as in these sentences:¹

7. a. ...tangka ngithunad pidngenad kernti-jithad.

1 my 2/NF wife/call/NF

'...(because) the man sweet-talked my wife' (lit.

'the man called my woman wife.')

- b. Kumaa kernti-jine ngithun pidngen.

stop wife/call/NG my 2

'Don't be after my wife.' (lit. 'Don't call my woman wife.'

2

2

However, incorporation into (jani)jani and into (med)ji can be accepted as a rule, provided some incorporated forms, including yukadpa-ji and kernti-ji are also entered as idioms in the lexicon. Further, it has to be specified that, while the incorporated noun with -jani 'seek' is the initial direct object, that is not so with -ji, 'call' rather in the latter instance it is the kin term.

20.2 Goal and source incorporation

Goal and source expressions consist of the noun phrase of goal or source plus a suffix -mari, -((k)i)ya (motion towards) or -pudi, -pudii (motion away from). These have already been introduced in Chapter Thirteen. Additional examples are provided here:

8. a. Ngata parnga-marithur tiinkur thungalur.

1 stone/put/F this/F 2/F

'I'll put this thing on the stone.'

1

2

b. (Nyingki) nguku-mari menhad.

1 water/put 2

'(you) put the bait into the water!'

1 2

9. a. (Nyingki) tiin-kiya!

you here/go

'Come here!' (lit. 'go here!')

b. (Nyingki) nguku-ya!

water/go

'Get into the water!'

10. (Nyingki) nguku-pudi kiin mangarta.

water/take that 2

'Get that child out of the water!'

11. (Nyingki) nguku-pudii.

water/take/R

'Get out of the water.'

These bound forms are verbs which obligatorily incorporate the goal or source dependent. Both -mari 'put (on, in)' and -((k)i)ya 'go (to)' (9) incorporate a goal expression, while -pudi take (from)' (10) and -pudii 'go/come (from)' (11) incorporate a source expression. (Evidentially -pudii is the reflexive of -pudi.)

There are several respects in which they show the properties of verbs. The full range of verbal tense inflection, enclitics, and negation are available. For example, -pudii takes the verb enclitic kun (Eventive) in (12) and is negated in (13). Both these sentences contain free verbs, and it can be seen that the inflection of a free verb and a bound form are identical.

12. Ngata ngithun-pudi nyedwi-pudii kun waangun.

1 my/take/R place/take/R go/EV

'I am leaving my country.'

1

13. Niya pirajadi wungkul-pudii jadi.

1 emerge/NG smoke/take/R/NG

'He did not get out of the smoke.'

1

The bound forms are permitted as imperatives, as already shown in 8 through 11.

The verbs -mari 'put' and -pudi 'take' are transitive, taking direct objects, while -((k)i)ya 'go to' and -pudii 'go from' are intransitive. To state this fact, it is necessary to have recourse to a distinction made among verbs but not other categories, i.e., transitive versus intransitive.

The bound verbs of motion can appear as the verb of a main clause, as in 8-117 or conjoined, as in the following sentences (14). A typical reduced conjoined structure, as (15) shows, requires the subjects of the conjuncts to be identical; both (or all) the verbs are placed together; any repeated dependents are deleted; and only one of the verbs takes the clitics--proclitics going on the first verb, enclitics on the last one.

- 14.a. Niya niwen-pudiithur nyedwi-pudiithur waangkur.

he his/take/R/F place/take/R/F go/F

'He will leave his country.'

b. Ngata yuud pira wungkul-pudii.

I emerge smoke/take/R

'I got out of the smoke.'

15. a. Ngata yuud mirntilnya mirnti malkijin.

1 squash step 2/AC

'I squashed the scorpion by stepping on it.'

1

b. Ngata tha waangun.

return go/EV

'I'm going back.'

However, the bound verb of motion often appears to be in a subordinate clause. In the examples of (16), the bound verb is at the end of the sentence, not right next to the other (main) verb. Also, repeated categories like the Eventive enclitic kun, instead of being deleted, are retained. Both in word order and in retention of repeated material, this construction resembles subordination.

16. a. Ngithun thapu wirima kun wangalkin parnga-pudi kun.

my 1 take 2/AC stone/take

'My brother took the boomerang off the stone.'

1

b. Jilka puti kun parnga-pudii kun.

1 fall stone/take/R

'The pencil (lit. 'stick with purpose') fell off the stone.'

c. Ngithun kantha tenethur niwenkur ngawur nganikin-marithur

my 1 leave/F his/F 2/F that/put/F
mitha-marithur murntanud-marithur.

big/put/F island/put/F

'My father will leave his dog on that big island'

'

2

d. Mangata wanji kun parnga-ya kun.

1 climb stone/go

'The child climbed up onto the stone.'

If we accept that these latter examples are instances of subordination, then it must be stated that the subordinate subject deletes, under identity with the superordinate subject.

There is one additional constraint that requires future study.

A nominal with dependents can be incorporated in the subordinate clause construction (cf. 16c), or coordinate construction (cf. 12, 14a,), but possibly not in a main clause, i.e. perhaps only a noun lacking dependents can be incorporated (cf. 8-11). It is not certain whether a sentence like 17 is grammatical.

17. Tiin-kiya nyedwi-ya!

this/go place/go

'come to this place'

In one respect, incorporating verbs act like inflectional affixes. As numerous examples above attest, one of these verbs spreads to all the dependents of the incorporated nominal, just like case or tense. Evidentially some incorporating verbs of Lardil are in the process of becoming case affixes.

20.3 Footnotes

1. An idiomatic use of -jani 'seek' is illustrated by (1).

(1) Ngata ngedawulathur ngithun-janithur kernti-janithur

I miss/homesick-for my/seek/F wife/seek/F

kampin janithur.

child/seek/F

'I will miss my wife and child'

CHAPTER TWENTY-ONE

OVERLAYS

- 21.1 Questions
- 21.2 Dislocatee
- 21.3 Topic
- 21.4 Detopicalized nominals
- 21.5 Interaction of topicalization and detopicalization
- 21.6 Footnotes

A central dependent, whether term, chomeur, or impure dependent, can bear an overlay relation. For example, in Lardil, any central dependent that is a question nominal may optionally bear the overlay relation Q'; any (classic) term may bear the overlay TP (Topic). Four overlays are examined in the present chapter: Q', Dislocatee, Topic, and Detopicalized nominal. Especially in the section on Q', 21.1, some related information not directly bearing on overlays is included.

Chapter Twenty-Four deals with one further overlay relation, that of Relativized nominal.

21.1 Questions

21.1.1 Preliminary remarks on questions

A yes-no question in Lardil begins with the question particle kara (Q). No other features of word order differ from declaratives, except that certain subject pronouns may encliticize to the particle, e.g. nyingki encliticizes as nyi:

1. Kara nyi kudi kun thungalin, ngithunin padkithuru?

Q 1 see 2/AC 1/GN/AC chop/F/AC

'Do you see the tree, that I'll chop?'

1

2

Content questions do not contain this particle kara, but they must contain a noun with a dependent question word, karaan 'which?', ngaja 'which (human)?', or ngaju 'which (non-human)?'.¹ Some typical fixed question nominals are: ngaja-rta 'who?', lit. 'which person?'; ngaju werne

'what (thing)?', lit. 'which food?'; and ngaju thungal 'what (thing)?' lit. 'what tree/thing?'; a form of karaan is used in one fixed phrase, karankuru wala 'how many?'. The question word karaan is also freely used attributively with nouns to form question phrases, e.g. karaan karnjin 'which wallaby?'. Evidently, ngaja and ngaju are not used freely in this way: the fixed phrases can be, however, e.g. ngaju-werne yarpud 'which animal/snake?', lit. 'which-food animal/snake?'.

21.1.2 Q'

Question phrases take case according to grammatical relation, just like other dependents, and enjoy the same restrictions and freedom of word order. The (a) examples below substantiate these statements; the (b) sentences, however, reveal that a question nominal can optionally bear the overlay Q'. It is then fronted, losing its case.

2. a Nyingki ngajuwan thungalin kudi kun?

1 which/AC 2/AC see

- or Ngajuwan thungalin kudi kun nyingki?

which/AC 2/AC see 1

- b Ngaju thungal nyingki kudi kun?

Q'/which 2 1 see

'Which (thing) did you see?'

2 1

3. a Nyingki ngajubar thungalur kuparithur?

1 which/F 2/F make/F

- b Ngaju thungal nyingki kuparithur?

Q' 2 1

'What (thing) are you going to make?'

4. a Nyingki ngajuwangad wernengad rathad kun?

1 Q/NF 2/NF V/NF

- or Ngajuwangad wernengad rathad kun nyingki?

which/NF 2/NF spear/NF 1

- b Ngaju werne nyingki rathad kun?

Q'/which 2 1

'What (thing, lit. food) did you spear?'

The (a) sentences in 2-4 display a variety of word orders fully consistent with Lardil linearization. It is significant that when the question phrase, inflected for case or tense, begins the sentence, then the verb comes in second position, i.e. the typical position for the verb.

In contrast, the question phrase in the (b) sentences, which bears the overlay Q', is not inflected for the expected case or tense, and is never followed directly by the verb, but rather by some dependent other than the verb. While it is an option to have two nominals precede the verb (as indeed in some of the (a) variants above), what is significant about the (b) sentences in 2-4 is that the uninflected question phrase only occurs in this sentence type, and, moreover, only as the first of the two nominals.

Therefore, when a nominal bears the overlay Q', the linearization principle of 'Verb Second' ignores that nominal.

Either terms 2-4 or impure dependents (5-6) may bear the overlay Q'.

5. a Nyingki ngajuwarur thungalurur rathur kanjinkur?
 1 which/F thing/F spear/F 2/F
 b Ngaju thungal nyingki rathur kanjinkur?
 Q'/which thing 1 spear/F 2/F
 'What (thing) are you going to spear the wallaby with?'
6. a Karaannge kunaa kun niya?
 what/LC be he
 b Kara(an) niya kunaa kun? (=a)
 Q'/what he be
 'Where is he?'

21.1.3 Indirect questions

Information about indirect questions is limited to yes-no questions. Here, the question particle kara either begins the subordinate clause (7) or comes in second position within that clause (8). (The comma is inserted here only to show clause boundary.)

7. a Taami kiinta, kara wernengkur yakur.
 ask 2 Q' food/PRP fish/PRP
 'Ask that man if he has any (food-) fish.'
 2
- b Taami, kara ratha kun karnjinin.
 Q' apear 2/AC
 'Ask (him) whether (he) speared a wallaby.'
 2
8. Taami kiinta, Kangkurumungkelen kara pirtithur ngakūlmungkur.
 ask 2 1 Q' arrive/F us/F
 'Ask that man, whether Kangkurumungkelen is going to come to us.'
 2

A question nominal in an indirect question may not bear the overlay Q', as the following show.

9. a Taami niya, niwen kantha karaankur waangkur?
 ask 2 his 1 what/F go/F
- b Taami niya, karaankur waangkur niwen kantha?
 2 what/F 1
 'Ask him, where his father will go.'
 2 1

21.2 Dislocatee

A dislocatee nominal is placed at the beginning of the sentence. It takes no case. A copy may be left behind; it undergoes regular case assignment.

10. a Tiin yarpud, ngata nethur yarputhur.
 this DIS/2 1 kill 2/F
 'This snake, I'll kill it.'
 DIS/2 1 2
- b Tiin wangal, ngata kupari kun ngithunin thapujin.
 DIS/2 1 make my/AC 3/AC
 'This boomerang, I made (it) for my brother.'
 DIS/2 1 3

Either term or impure dependent may serve as dislocatee.

11. **Tiin** wika , ngata kunaa kun.
 DIS/LOC 1 sit
 'This shade, I'll sit in (it).'
 DIS/LOC 1

21.3 Topics

The (a) sentences in 12-13 below are typical Lardil declarative sentences, either in the Non-Future (12) with the tense deleted (see Chapter Twelve) or in the Future tense (13). Corresponding to these in verb, tense, and thematic relations are the respective (b) sentences, which are distinctive in morphology, word order, and meaning: call these the topicalized versions.

12. a **Ngata** tulte kun (tiinin) ngadkur.
 1 dig this 2/AC
 'I dug (this) well.'
 1 2

- b **Tiin** ngadka ngithun tultethad kun.
 TP/2 1/GN dig/NF
 'This well (is the one) I dug.'
 TP/2 1

13. a **Ngata** tultethur (tiinkur) ngadkur.
 1 dig/F 2/F
 'I want to/will dig (this) well.'

- b **Tiin** ngadka ngithun tultethur.
 TP/2 1/GN
 'This well (is the one) I want to dig.'
 TP/2 1

In the topicalized sentences, some nominal is placed at the beginning of the sentence. But this order is not absolutely fixed: see sentence 16 and subsection 21.3.2. This, the Topic nominal, has a demonstrative pronoun tiin 'this' which is optional in non-topicalized sentences like

12a, 13a but virtually obligatory with a Topic. (Alternatively, the Topic may govern the demonstrative kiin 'this', or Topic be a pronoun itself.) The Topic has no case (or tense) inflection; the accusative of 12a is absent on the Topic in 12b.

The subject of a topicalized sentence is not in the Nominative, as in declaratives, but rather is in the Genitive. The only time when the subject of a topicalized sentence is nominative is when it is itself the Topic as in 14 below. The topicalizing enclitic tha usually appears on the Topic subject, especially if the latter is a pronoun.

14. Ngata tha tuitethad kun ngadkungad.

TP/1 dig/NF 2/NF

'I (am the one who) dug the well.'

1

2

A topicalized sentence must always be overtly tensed: thus Non-Future Tense Deletion is inapplicable to sentences like 12b, 13b, although it has applied in the corresponding non-topicalized sentences 12a, 13a.

The main function of a topicalized sentence is to get a Topic/Comment partition. However, another function is also possible. While the proposition of a statement is always asserted, the topicalized sentence may be divided into a focus (viz. the Topic), which represents the assertion, and a presupposition, namely the rest of the sentence. For example, in this reading, 12a asserts that the speaker has dug a well, while 12b presupposes that he has done this, and identifies the well which he dug. Similarly, while 13a asserts that the speaker will dig a well (or: that he wants to do so), the corresponding topicalized sentence 13b can presuppose that he wants to do so, then it identifies the well in question.

The focus/presupposition partition comes out clearly when a question-answer pair like 15 is examined. Given the question 15a, it is clear that the answer must presuppose 'someone hit me (the speaker)', and my claim set out above clearly predicts this.

15. a Question: Karankuru wala tangka ngimpeen netha kun?
 how many 1 2/AC hit
 'How many men hit you?'

1 2

- b Answer: Warngerta ngithunad nethad kun.
 TP/1 2/NF hit/NF
 '(It was) one man (who) hit me.'

1 2

However, it must be emphasized that this semantic distinction is not an essential feature of topicalized sentences. Consider content questions, for example. It is inherent in the nature of such sentences that the question phrase is the focus and the rest of the sentence the presupposition. Nevertheless, some nominal other than the question phrase can be Topic. In other words, a nominal that is part of the presupposition is topicalized. Sentence 16 illustrates this.

16. Ngajikan nethad kun kiinta (kiinkur ngawur)?
 1/GN kill/NF TP/2 that/PRP dog/PRP
 'Who (was it who) killed that man (with that dog)?'
 1 TP/2

21.3.1 Restrictions on Topics

21.3.1.1

It has been noted that topicalization is possible only in the Future and (overtly) Non-Future clauses, but not in Admonitives or Infinitives. Topicalization cannot apply in imperative clauses. This is simply a special case of the restriction that only tensed (Non-Future or Future) clauses can contain a Topic.

A topicalized clause cannot undergo Non-Future Tense Deletion.

21.3.1.2

The sentences above have illustrated Topics that are classic subjects (14,15) or direct objects (12,13,16). In general, any classic term may bear a Topic overlay, but no classic non-term may. Topic subjects include

those from:

initial subject (14,15b,17a)

ascended possessor (17b)

advanced direct object (17c)

17. a Tiinta nethad kun ngawungad.

TP/1 kill/NF 2/NF

'This man (is the one who) killed the dog.'

TP/1

2

b Tiinta kalkathad kun relkad.

TP/1 ache/NF C/NF

'This man (is the one who) aches in the head.'

TP/1

C

Topic direct objects include those from:

initial direct object (16)

ascended possessor (18)

advanced locative (19)

advanced instrument (20)

18. Tiinta ngithun rathad kun kuwungad.

TP/2 1/GN spear/NP C/NF

'This man (is the one who) I speared (in the) eye.'

TP/2

1

C

19. a Tiin tha tupalan ti Thuwathuwakan waangad.

TP/2 1/GN go/NF

'This road (is the one) Thuwathu went on.'

TP/2

b Tiin parnga ngithun mirnemirnkethad tiwadkungad.

TP/2 1/GN sit/NF yesterday

'This stone (is the one) I sat on yesterday.'

TP/2

1

c Tiin nyedwe ngithun puunymenjinengkur.

TP/2 1/GN whistle/NG/F

'This is the place where I can't whistle.'

20. Tiin muduku ngithun thapujikan nethad ngithunad.

spearthrower my brother/GN hit/NF me/NF

'This is the spearthrower that my brother hit me with.'

Topic indirect objects include those from:

initial indirect objects (21a)

advanced benefactives (21b)

21. a Tiinta ngithun wuthur wangalkur.

TP/3 1/GN give/NF 2/F

'This man (is the one) I'll give a boomerang to.'

TP/3 1 2

b Tiinta ngithun kuparithad kun wangalkad.

TP/3 1/GN make/NF 2/NF

'This man (is the one who) I made a boomerang for.'

TP/3 1 2

21.3.1.3 Comitatives

A comitative may be Topic.

22. a Nyari kiin mangarta ruuli kun tilanthaad.

1(13) that child play before

'That child and I played together before.'

b Kiin mangarta ngithun ruulithad tilanthaad.

TP 1/GN play/NF

'(It was) that child (who) I used to play with before.'

TP 1

21.4 Detopicalized nominals

Like many Australian languages, Lardil has been considered a 'free word order' language, since surface structure constituents can be rather freely ordered, as illustrated by 23. The overriding restriction that

emerges is that the verb must be in second position or sentence final position.

23. a Mangarta kudi kun karnjinin.
 1 V(see) 2/AC
 'The child saw the wallaby.'
- b Karnjinin kudi kun mangarta. (=a)
 1/AC V i
- c Mangarta karnjinin kudi kun. (=a)
 1 2/AC V
- d ?Karnjinin mangarta kudi kun.
 2/AC 1 V

A major factor governing the use of the variants in 23 is Detopic-alization: one manifestation of this is that, generally speaking, a nominal in a sentence that has been repeated in previous sentences appears at the end of its clause.

This may be observed in recorded narratives. At one point in his Autobiography (as recorded in an interview with K.L. Hale), Gully Peter describes his father, who has not been mentioned in the immediately preceding paragraph or two. First, Peter tells us what his father's name is, and then goes on to explain what his father did:

24. Ngithun kantha wernekepen, yakakepen. Kentapalin kedme ngithun
 My 1 hunter fisherman 2 catch
 kantha ... karnjinin, jikin wirniin ratha ngithun kantha...
 1 2/AC much 2 spear 1
 Maaliya janijanijad ngithun kantha.
 2/AC seek/NG/NF 1

'My father¹ was a hunter, a [good] fisherman. My father² caught dugong²...My father speared wallabies², a lot of food²...My father¹ never had to seek turtles² [i.e. they just came to him, he was so good].

Here we see the frequent use of 2 V 1 word order, in fact in every sentence after the first two (the one naming Peter's father is not repeated here). The reason is that the subject ngithun kantha 'my father', initially the topic of the discourse is repeated many times and after the first couple of times, it is 'old information', and detopicalized, and then moved to the end of the sentence.

Also consider Hale's notes from the interviews in which he asked for translations of several English sentences in which some nominal, e.g. the subject of the sentence, was kept constant for ease of eliciting and transcribing: the Lardil speakers giving the interview found it natural to shift the repeated nominal to sentences-final position after the first couple of sentences. Hence, the notion of a Detopicalized nominal.

Other kinds of constructions are possibly also manifestations of Detopicalization, for example the sentences in 25, with the verbs ne-nji (hit/RECIP) 'hit each other, fight' and ruuli 'dance'. The (initial) subject of each of these sentences, tangka 'person(s)' is in final position.

25. a Nenji tangka.
 hit/RECIP person
 'There's a fight.'

 b Ruuli tangka.
 dance person
 'There's dancing going on.'

Also, in sentences describing the weather, the nominal that is the initial subject is typically clause final.

26. a Redithur wunta.
 V(rain/F) rain
 'It is going to rain.'

 b Yuud titha piril.
 sit calm
 'Calm has set in.'

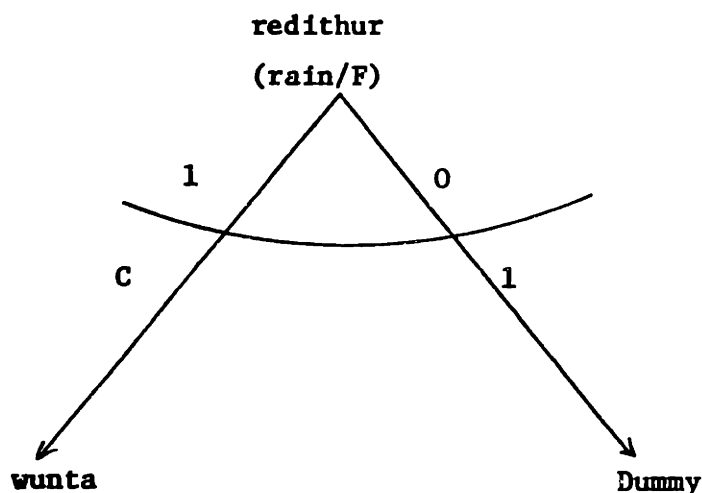
c Yuud thalngi wadngal.
 blow wind

'The wind has started to blow.', 'It has started to become windy.'

It is possible that sentences like those in 25-26, which are verb-initial, arise as a result of a dummy insertion rule. The dummy is phonologically zero. There is no evidence in support of this conjecture apart from the word order, however.

If the insertion analysis is correct, then the initial subjects of 25-26 (which are identified as subjects in the sublinear analysis) are canonical chomeurs. The network below exemplifies this analysis, for 26a.

26a'.



21.5 Interaction of topicalization and detopicalization

Word order in the topicalized sentences so far (with the exception of 16) has been consistently:

Topic (1) V Rest of Clause

However, in a number of documented topicalized sentences, this word order is not found. Rather, the Topic is at the end of the sentence, as in the sentences below. These sentences are still identifiable as topicalized constructions in that the subject is in the Genitive and some other nominal is in the nominative, with a demonstrative pronoun. Also the verb is overtly tensed.

27. a Ngawukan jithad kun tiin yaka.

1/GN V/eat/NF 2

'This fish (is the one) a dog ate.'

TP/2 1

- b Tangamen terltethad ngithun maarn.

1/GN break/NF my TP/2

'My spear (is the one) someone broke.'

TP/2 1

- c Ngithun ngamakan kuparithad tiin jumud.

my 1/GN make/NF TP/2

'This coolamin (is the one) my mother made.'

TP/2 1

Every single one of these sentences was recorded in a context where Detopicalization would be applicable to the Topic.

Evidentially, then, even a nominal that is the Topic can be Detopic-
alized. If Detopicalized nominal is an overlay relation like Topic, then
sentences like those above show that a given nominal can bear two overlay
relations in the same clause.

21.6 Footnotes

1. Ngaja is from underlying ngaj by Augmentation; and ngaju from ngajuwa by Apocope and Non-Apical Consonant Truncation.

The vowel length alternation in karaan, karankuru wala is derivable
by the minor rule of Vowel Lengthening if the underlying forms are
karangin, karanginkuru wala, respectively.

CHAPTER TWENTY-TWO
SUMMARY OF LINEARIZATION

22.1 Central grammatical relations

22.2 Dependents of nominals

22.3 Overlays

22.4 Deletions

22.1 Central grammatical relations

The usual word order in Lardil, most simply stated, is as in 1a-b.

1. a 1 V 2 3 Non Terms
- b 1 V 3 2 Non Terms

The following sentences illustrate this.

2. a Ngata nethur pulakar ngimpenngun.
 1 V/F 2/F you/COM
 'I will kill the bullock when you are there (lit. 'with you').'
 1 V 2
- b Ngata thaathur kidpirtinkur.
 1 V/F TIME/F
 'I'll return in the afternoon.'
 1 V TIME
- c Ngata nethur ngimpenthar thartar mudkunimarur.
 1 V/F your/F 2/F IN/F
 'I'll hit your shoulder with a nullahnnullah.'
 1 V 2 IN
- d Ngata wunengkur ngimpenthar wernengkur.
 1 V/NG/F 3/F 2/F
 'I won't give food to you.'
 1 V 2 3
- e Ngata wuthur wernengkur kiinkur mangurtangkar.
 1 V/F 2/F 3/F
 'I'll give food to that child.'
 1 V 2 3

f Nyingki rayithur ngithun.

1 V/R/F C/GN

'You'll be speared by me.'

1 V C .

g Ngata kalka kun relka.

1 V C

'I ache (in the) head.'

1 C

However, in a subordinate clause, the verb may often be final.

3. Ngata kudi kun tangan, yakur pulejid kun.

1 see 2/AC 2/F catch

'I saw a man, catch a fish.'

1 2 2

Certain impure terms, notably time expressions, as well as location phrases (especially when question phrases not bearing the overlay Q'; see 22.3) are often positioned right before the verb, as in the following sentences.

4. a Ngata tilanthad kudi niween.

1 TIME V 2/AC

'I saw him already.'

1 V 2 TIME

b Niya karaanngge kunaa kun?

1 where/LC V

'Where is he?'

V 1

Thus, the linearization principles summarized in 1 need to be qualified slightly:

5. a 1 { Time } V 2 3 Non Terms
 { Location }

b 1 { Time } V 3 2 Non Terms
 { Location }

22.2 Dependents of nominals

Relative clauses are typically adjoined to the superordinate clause, not to the governing nominal. But other dependents of a nominal immediately precede it (6).

6. Ngata nethur ngithun kanthakankur ngawur.
 1 V/F my P/GN/F 2/F
 'I'll kill my father's dog.'
 1 V P 2

22.3 Overlays

Topic, Q', and Dislocatee come in sentence initial position, as in 7a,b,c, respectively. The word order for other dependents is unaffected, i.e. the subject still precedes the verb as in 1.

7. a Tiin wanal ngithun kuparithad kun.
 TP/2 1/GN V/NF
 'This boomerang (is the one that) I made.'
 TP/2 1 V
- b Karaan niya kunaa kun?
 Q' 1 V
 'Where is he?'
 Q' V 1
- c Tiin wanal, ngata kupari kun.
 DS/2 1 V
 'This boomerang, I made (it).'
 DS/2 1 V

A Relativized nominal is initial if the relative clause is adjoined initially, but that nominal is final if the relative clause is adjoined finally.

8. Ngani wanal ngimpen wuthad ngithunad, terlte.
 RL/2 1/GN V/NF 3/NF break
 '(The boomerang) which you gave me broke.'
 RL/2 1 V 3

A detopicalized nominal is at the end of the clause; if that nominal is the subject, then typically some other nominal will precede the verb.

9. a Ngakudwen kudi kunaa kun niyarta.

2(13H)AC see be 1

'He is looking at us.'

1 2

- b Karnjinin ratha ngithun kantha.

2/AC V my 1

'My father speared wallabies.'

1 V 2

22.4 Deletions

Word order is, in general, unaffected by deletions. For example, in 10a, which is an imperative, the subject has been deleted: the relative order of verb and indirect object remains the same as in 1; cf. 10b.

10. a Kangka niya, kurtamathur ngukur.

V 3 drink/F 2/F

'Tell him, to drink water.'

V 3 2

- b Nyingki pilaa kangka ngithaan, ngata nyithur mathur.

1 TIME V 3/AC 1 2/F get/F

'(You) tell (i.e. remind) me tomorrow, to get firewood.'

1 V 3 TIME 2

CHAPTER TWENTY - THREE

CASE ASSIGNMENT

- 23.1 Review of case
- 23.2 The domination Hypothesis
- 23.3 Other Transformational Approaches
- 23.4 Grammatical relations and case
- 23.5 Footnotes

Within Pama-Nyungan, there are two gross typological groupings with respect to case marking. In the majority of Pama-Nyungan languages, the subject of a transitive verb is marked by a special inflection, while the intransitive subject is grouped together with the direct object in receiving no case inflection. Such languages are commonly referred to as having an ergative case system. Within this typological grouping, there are many sub-types according to other features of case marking as well as other aspects of the syntax. In this chapter¹ however, my primary concern is with a language of the other typological grouping, i.e. one with a so-called accusative case system. In such languages, it is the direct object which is inflected (for the accusative case), in opposition to transitive and intransitive subjects, which are both uninflected, or nominative.

A recent paper by Kenneth Hale(1970) is concerned with explaining the diversity of case-making systems in Pama-Nyungan, and the way these correlate with other syntactic differences. For example, the accusative

languages all have the Passive rule, while ergative languages typically do not. (In the passive, the verb is marked with a formative that appears to be cognate with the nominal ergative inflections. The erstwhile subject receives an inflection in the passive, thereby being distinct in surface structure from active transitive subject and intransitive subject.) An ergative language typically has a conjugational system, in which there are at least two open conjugations, one for intransitive verbs, and one for transitive verbs: the latter is characteristically more complex phonologically in that it has a conjugation marker. On the other hand, there exist accusative languages which completely lack a conjugational system of this sort.

Hale's hypothesis for explaining these correlations is that the ancestral language of the Pama-Nyungan family was an accusative language, which lacked conjugations but which had a passive rule, i.e. a language with a grammar essentially like that of actual contemporary accusative Pama Nyungan languages. He speculates that, in the majority of the descendants of this language, passive surface structures came to predominate, and active surface structures were no longer used. At that point, the existing surface structures of the language would correspond exactly to that of contemporary ergative Pama Nyungan languages: the initial transitive subject would have a distinctive inflection; the transitive verbs would have a phonologically more complex conjugation, and there would be no overt active:passive contrast. Without any surface evidence for the latter, reanalysis would be effected, and the form of that reanalysis would lead to just the typological

variation found within the contemporary ergative languages, as Hale shows in some detail (1970). This hypothesis, in spite of obvious weaknesses which have been pointed out by various grammarians (e.g. Dixon 1972), retains great explanatory power, which any alternative hypothesis would have to at least match and preferably extend.

In this chapter, I am not going to deal with Hale's historical framework as such. Rather, I extract one edtail of Hale's hypothesis which bears on the syntax of Lardil for closer examination. In postulating the grammar of the ancestral Pama Nyungan language, Hale suggests that "if any Australian languages continue the supposedly ancestral accusative system, they are the Wellesley Island languages" (1970:759), i.e. Lardil and two of its sister languages, Kayardilt and Yanggal.

I propose, then, to examine the nature of case assignment in Lardil, and to evaluate Hale's analysis of that language.

Hale's approach was formulated with several crucial assumptions from transformational grammar: among these, that grammatical relation is a derivative notion based on underlying domination relations; that a node VP exists; and that there exist both cyclic and non-cyclic rules which are operations on phrase-markers.

In section 23.2 below, I operate with the same assumptions that guided Hale's hypothesis about case assignment cannot be maintained. Moreover, I show both in sections 23.2 and 23.3 that no generalizations of the kind Hale is seeking are possible, i.e. single statements governing the surface distribution of a given case inflection, in particular the accusative.

In section 23.4 I abandon the attempt to construct the kind of case assignment rule that Hale has attempted, and consider a somewhat different approach to the problem, specifically that of Relational Grammar.

Returning to the typological and historical issues which Hale's essay initially addressed, we can see that the syntactic analysis which Hale assumed when making the statement quoted above is invalid. Rejecting the key features of his analysis, the Domination Hypothesis and the Case Marking Hypothesis, as I shall refer to them, does not however materially affect Hale's hypothesis about the ancestral Pama Nyungan language. The comparative observations due to Hale (and summarized in the second paragraph of this chapter) remain valid, and his proposed explanation of these is still workable, given the framework within which he is operating.

23.1 Review of case

Nominals in Lardil are either uninflected, i.e. in the nominative, or are inflected for case or tense. The case assigned to a nominal can be specified with reference to its initial, classic, or overlay relation. A tense category is assigned to certain nominals in a clause overtly inflected for tense.

The present section summarizes the distribution of surface case and tense inflection with only a minimal attempt at presenting general principles.

23.1. Subjects

A subject is nominative,¹ except in five circumstances as described below.

1. a. Ngata maankur, wadkun pirathadpa.

I go/F sun/AC arrive/NF/AC

'I'll go, when the sun comes up.'

1

- b. Ngata netha kun ngawun.

1 kill 2AC

'I killed the dog.'

1

2

23.1.1.1 Topicalized sentences and relative clauses

A subject in a topicalized sentence or in a relative clause is in the Genitive (provided of course that it is a non-subject that is Topic or Relativized nominal).

2. a. Ngata netha kun yarpujin.

1 kill a/AC

'I killed a snake.'

1

2

- b. Tifn yarpud ngithun nethad kun.

TP/a 1/GSN kill/NF

'This snake is the one I killed.'

TP/2

1

23.1.1.2 Infinitives

The subject of an infinitive clause is in the Accusative. If it is a time clause, then that Accusative is never replaced by tense(3a).

But if the subordinate clause is the direct object, then the subordinate subject takes tense in place of the Accusative: (3b,c). In Chapter Eighteen, I have claimed that this is because the subordinate subject has actually been raised to superordinate direct object.

3. a. Ngithun thapu, yuujid jidpalti kun, ngithaan waangkud kun.

my 1 before hide 1/AC go/NF

'My brother hid, before I came.'

1 1

- b. Ngata medi kun niween rikud kun.

1 hear 2/AC cry/INF

'I heard him cry.'

1 2

- c. Ngata medithur niwenthur rikud.

2/F

'I'll hear him crying.'

1 2

23.1.1.3 Agreement

A nominal in a subordinate clause can be deleted if it is coreferential with a superordinate trigger nominal, provided that the latter is a canonical term. The subordinate verb then agrees in case with the superordinate trigger of the deletion, and the case will spread throughout the subordinate clause, including to the subordinate subject.

4. Ngata warnawuthur kiinkur wurtaljiwur ngimpenia wirimathadpa.

1 cook/F that/F 2/F 1/GN/AC bring/NF/AC

'I'll cook that food, that you brought.'

1 2 1

23.1.1.4 Passives

In a passive sentence, the derived subject is inflected exactly as for the active subject, described in previous subsections. The chomeur (agent phrase) in a passive is inflected in variety of ways depending on the tense of a clause. In a clause inflected for any of the tense-moods in Future, Non-Future, or Admonitive, in the chomeur is and moreover takes any case assigned to the verb by agreement with a superordinate trigger of deletion (cl. 23.1.1.3). In a clause in which Non-Future Tense Deletion has applied, the chomeur is in the Accusative (6). In an infinitive clause, the chomeur takes the Infinitive affix (7).

5. a. Yarpud neyithur yadamanngan.

1 kill/R/F C/GN

'The snake will be killed by the horse.'

1

C

b. Yarpud neyinyed yadamanngan.

1 kill/R/ADM C/GN

'The snake is liable to be killed by the horse.'

1

C

6. Yarpud neyi kun yadamanin.

1 kill/R C/AC

'The snake was killed by the horse.'

1

C

7. Ngata kudi kun niween, jempekiraajid kun yadamankur.

1 see 2/AC kick/R/INF C/INF

'I was him, be kicked by a horse.'

1

2

C

23.1.2 Direct Objects

A direct object is overtly inflected for case or tense as follows:

(i) Accusative in clauses to which Non-Future Tense Deletion has applied; and in a conjoined Imperative (the verb taking -d).

8.

(ii) Infinitive in an Infinitive clause (9)

(iii) tensed in a tensed clause; in a Admonitive clause, the affix is the same as the Future tense. (10).

8. a. Ngata ratha kun karnjinin.

1 spear 2/AC

'I speared a wallaby.'

1 2

b. Matha kiin maarn, karnjinin raad!

get that 2 2/AC apear/IMP

'Get that spear, (and) spear a wallaby!'

2 2

9. Ngata kudi kun ngimpeen, rajid kun karnjinkur.

1 see a/AC spear/F 2/INF

'I saw you, spear the wallaby.'

1 2 2

10. a. Tiinta rathad kun karnjinad.

TP/1 spear/NF 2/NF

'This man (is the one who) speared a wallaby.'

TP/1 2

b. Ngata nethur karnjinkur.

1 spear/F 2/F

'I'll spear a wallaby.'

1 2

c. Kiin mutha yarpud penymed ngakulmungkur.

that big 1 bite/ADM 2/F

'That big snake/animal might bite us.'

1

2

An initial direct object will be inflected as for a subject if it undergoes advancement to subject (passive) i.e. if it is a classic subject. Also, a direct object is nominative if Topic, Relativized nominal, Dislocatee, Q, or if non-first person in an Imperative.

11. a. Tifn karnjin ngithun raned kun.

this TP/a 1/GN spear/NG/NF

'This wallaby (is the one) I didn't spear.'

TP/2

1

b. Yuud kinee karnjin, ngithun thapujikan punpethad kun karnjin

die 1 my 1/GN shoot/NF REL/2

'The wallaby, that my brother shot, has died.'

1

REL/2

1

c. Tifn karnjin ngata ratha kun.

this DIS/2 1 spear

'This wallaby, I speared.'

DIS/2 1

d. Ngaju werne ngimpen thapu ratha kun?

Q/what 2 your 1 spear

'What meat/food did your brother spear/'

2

1

e. (Nyingki) ratha karnjin!

1 spear 2

'(you) spear a wallaby!'

1

2

The clause agreement phenomena mentioned previously covers all constituents of the clause, including direct objects, cf. (12).

12. Ngata kangka kun niween, karnjinkuru rathuru
 1 tell 3/AC 2/F/AC spear/F/AC
 'I told him, to spear a wallaby.'
 1 3 2

12.1.2 Indirect Objects

An indirect object will either:

- (i) take the verbal ending -mari (put) plus the same tense and clitics (if any) of the main verb (13) or:
- (ii) inflect exactly like a direct object (see previous section).

13. Niya wuthur wernengkur ngithunmarithur.
 he give/F fooe/F me/put/F
 'He will give food to me.'

Both possibilities seem to exist in essentially all sentence types. However, where a direct object must be nominative (topicalized, relativized, dislocated, or moved (when question word), then the first possibility above (taking -mari is excluded.

23.1.4 Possession

The marking of possession is dealt with in some detail in Chapter 1. Briefly, an attributive genitive takes the genitive plus whatever categories of case and/or tense are assigned to the governing nominal (unless the possessive undergoes ascension). Sentences (14) illustrate some genitive plus case/tense sequences.

14. a. Tiin wanal, ngata kupari kun ngithunin thapujin.

this DIS/2 1 make I/GN/AC 3/AC

'This boomerang, I made for my brother.'

DIS/2 1 3

- b. Tiin wangal ngithun kuparithad kun ngithunad thapujingad.

TP/2 1/GN make/NF 1/GN:NF 3/NF

'This boomerang (is the one) I made for my brother.'

However, the case/tense of the NP does not always distribute onto a possessive phrase, as (15) illustrates.

15. Mangata netha kun (ngithun) thapujikanin ngawun.

1 hit { I/GN brother/GN/AC 2/AC

*ngithunin

I/GN/AC

'A child hit my brother's dog.'

1

2

This is a question of concord, rather than ca. marking as such.

23.1.5 Impure Dependents

Impure dependents with distinct inflectional categories are instrument, location, goal, and source.

23.1.5.1. An instrumental phrase takes the instrumental case (morphologically identical to the future) in all clause types and all tenses.

In a tensed clause, the tense is added to the instrumental case; in an infinitive clause, the infinitive inflection is added to that case (16).

When the clause takes case by agreement with a superordinate trigger of deletion, then that case is added to the case ending already present.

16. Ngata nethur ngimpenthar thartar markunimarur.

1 hit/F 2/F C/F Instrum/In/F

'I'll hit you on the shoulder with a nullahnnullah.

1 2 C Instrum

While the remarks of the preceding paragraph are valid for the available Lardil data, it is not known whether sentences like (17) are grammatical, because they are unattested: in (17a) there is an instrumental phrase in a non-guture clause, giving rise to the sequence IN + NF; in (17b), an instrumental phrase is in a future clause undergoing case agreement, giving rise to the sequence IN + F + AC. (The sequence IN + NF + AC is also lacking in the available data).²

17. a. (unattested)

Tiin karnjin ngithun nethad kun wangalkurngad.

TP/2 1/GN hit/NF Instrum/IN/NF

'This wallaby (is the one) I killed with a boomerang.'

TP/2 1 Instrum

(unattested)

Ngata kangka kun niween, karnjinkuru nethuru wangalkururu.

1 tell 3/AC 2/F/AC kill/F/AC Instrum/IN/F/AC

'I told him, to kill the wallaby with a boomerang'

1 3 2 Instrum

Hopefully future studies of Lardil will determine the status of (17).

23.1.5.2 Location phrases take the locative case if the clause has undergone Non-Future Tense Deletion and in Infinitive Clauses;

c. Titha niwennge parnjiparnjii.

sit his/LC hat/AC

'Sit on his hat!'

23.1.5.3 Goal and source phrases take the appropriate verbal affix described in Chapters Thirteen and Twenty and in addition must match the tense, case, negation, and enclitic categories of the main verb(20). These affixes never delete, say in imperatives like the accusative (21).

20. a. Riwn waangun kiinta parngapudii kun

east/EL go/EV 1 stone/take/R

'That man is coming from the stone, from the east.'

1

b. Ngata pirajadi . wungkulpudiijadi.

I emerge/NG smoke/take/R/NG

'I didn't come out of the smoke.'

The directional demonstrative pronouns have a distinctive source case (the Elative (20a)).

21. a. Ngata thaltithur tulpudiithur.

I stand/F ground/take/R/F

'I'm getting up from the ground.'

b. Thalti tulpudii!

stand ground/take/R

'Get up from the ground.'

Elative forms of the demonstrative must take tense in a tensed clause; the tense morpheme is preceded by the Genitive, -ngan:

22. Pilaau pirathur rawunngankur.

tomorrow arrive/F east/GN/F

'Tomorrow (he)'ll come from the east.'

23.1.6 Dependents of intransitive verbs

Those verbs which take an optional dependent and do not passivize, I have called intransitives. Since the complements of such verbs do not undergo the passive, I have refrained from claiming that they are direct objects. Nevertheless, they undergo case (or tense) assignment exactly like that of a direct object.

23. Niya yalali kun ngithaan.

he laugh me/AC

'He laughed at me.'

24. Niya yalalithur tangkar.

V.F man/F

'He'll laugh at the man.'

23.1.7 On the distribution of the Accusative and Genitive cases

Thus far, we have seen that the accusative case is assigned to:

- 25 (i) a direct object (if Non-Future Tense Deletion applies)
- (ii) an agent phrase--the chomeur in a passive (if Non-Future Tense Deletion applies)
- (iii) a complement of intransitive verbs
- (iv) an indirect object (when not in -mari)
- (v) a subject of an infinitive clause

Can this recurrence of the accusative case be accusative case be

accounted for by a single rule? Hale (1970) advances such a claim for Lardil. In the next section, I examine his claim in some detail and show that it is untenable. A similar claim about the Genitive case, which is assigned as summarized in (26), is also entertained later, and rejected.

26. (i) possessives (attributives)

(ii) chomeur in passive in tensed clause

(iii) subject in a topicalized sentence.

Since no generalization can be expressed comprising (25), (26), I conclude the chapter with a section taking a different approach, specifically one which attempts to limit the kinds of information to which case assignment rules may refer.

23.2 The domination Hypothesis

Assuming a transformational grammar for Lardil along the lines of Chomsky (1965), then at the outset it is clear that underlying case configurations must differ from the surface forms. A case category like the instrumental (27a) or the locative (27b) contributes meaning to the sentence (in some occurrences at least) and must be generated by the base.

27. a. Ngata netha kun ngawun parngaa.

hit 2/AC stone/IN

'I hit the dog with a stone'

1

2

b. Ngata kudi kun maanangan parngaa.

1 see 2/AC stone/LC

'I saw the child on the stone'

1 2

These categories are subject to deletion in surface structure, as illustrated by 28a, the topicalized version of 27a, and 28b the dislocated version of 27b.

28. a. Tiin parnga ngithun nethad kun ngawungad.

this TP/2 I/GN hit/NF dog/NF

'This stone (is the one) I hit the dog with.'

TP/2

b. Tiin parnga, ngata kudi kun maanangan parngaa.

this DIS stone 1 see 2/AC stone/LC

'This stone, I saw the child on it.'

DIS I 2

A case like the Accusative, on the other hand, is affixed to nouns with diverse semantic relations to the rest of the sentence, and moreover its distribution is definitely dependent on derived structure. For example, the direct object in the active sentence 29a takes the Accusative, while in the corresponding passive 29b it is the agent which displays the Accusative.

29. a. Mangata netha kun yadamanin.

1 hit 2/AC

'The child hit the horse'

1 2

b. Yadaman neyi kun maanangan.

| 1 | hit/R | C/AC |
|---|-------|------|
|---|-------|------|

'The horse was hit be the child'

1 **C**

It is a reasonable hypothesis in the framework we are assuming for this analysis, that a surface case like the Accusative is generally, if not always, absent in the underlying representation.

The objectives of this paper are, therefore, to establish the underlying representation of case in Lardil, and to show how the surface case forms derive from these.

23.2.1. The Accusative

I will begin by considering the distribution of uninflected NPs and those inflected for Accusative, ignoring the existence of the other cases, until Section. 23.2.4.

There is one obvious and initially plausible possibility for predicting the appearance of uninflected versus oblique forms that is nevertheless incorrect and should be disposed of immediately. It might be speculated that any nominal preceding the verb in surface structure is uninflected, while those after the verb receive the Accusative. This hypothesis is substantiated by and large by an examination of typical sentences such as 27-29 above (only 28a has an inflected nominal before the verb). It appears to hold for simple intransitives 30a, actives 30b, passives 30c, and for dislocatees 30d.

30. a. Ngata yalali kun tangan.

I laugh man/AC

'I laughed at the man'

b. Tanka netha kun yadamanin.

1 hit 2/AC

'The man hit the horse'

1 2

c. Yadaman neyi kun tangan.

1 hit/R C/AC

'The horse was hit by the man'

1 C

d. Tiin yadaman, tanka netha kun.

DIS/2 I hit

'This horse, the man hit (it)'

DIS/2 I

However, this hypothesis is disconfirmed by an examination of reordering possibilities. The word order in (4) a reflects accurately the common word order of Lardil, but the uniformity is due to a simplification adopted for expository purposes. Actually, the constituents of a sentence may be fairly freely "scrambled". There is a general preference for the verb to be in second last position in the surface sentence, but the first constituent may be any dependent. For example, sentence 31a below has the equivalents 31b, c, d. Observe that any dependent, inflected or not, may precede the verb. Those sentences in which the verb is not in second position are less preferred, e.g. 31c, or are relatively unacceptable e.g. 31d.

31. a. Pidngen kudi kun tangan.

1 V 2/AC

'The woman saw a man.'

1 V 2

b. Tangan kudi kun pidngen.

2/AC V 1

c. Pidngen tangan kudi kun.

1 2/AC V

d. Tangan pidngen kudi kun.

2/AC 1 V

23.2.2 The Case-Marking Convention

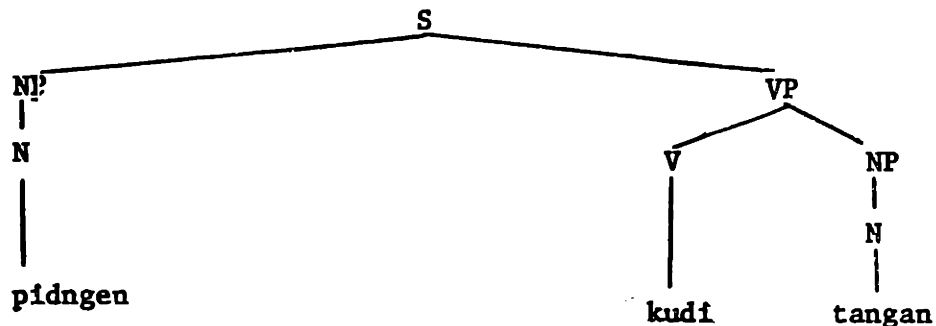
It has been proposed by Kenneth Hale (1970) that case is assigned in Lardil according to constituent structure in surface structure 9but prior to the "scrambling" rule needed in this framework to account for the sentences in 31. Specifically, according to Hale's theory, we would assume that the surface structure of 32 is that of 33 -- details which are not immediately relevant are simplified or omitted, in particular the status of kun 'Eventive'.

32. Pirngen kudi kun tangan.

woman see man/AC

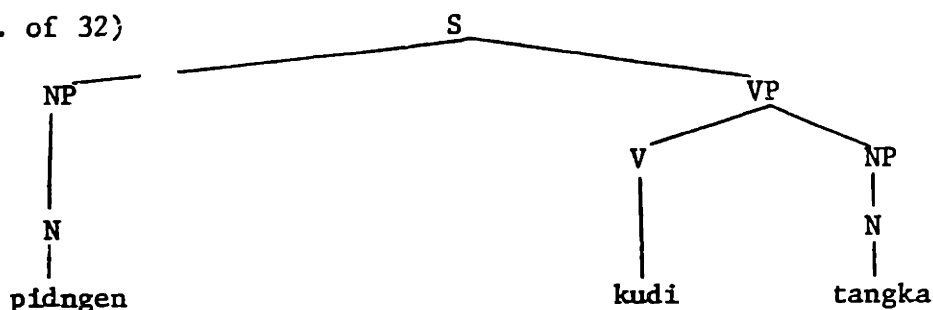
'The woman saw a man.'

33.



The noun tangan is inflected for Accusative in this surface sentence. In the underlying representation, we assume that it is caseless. This is shown in 34.

34 (=D.S. of 32)



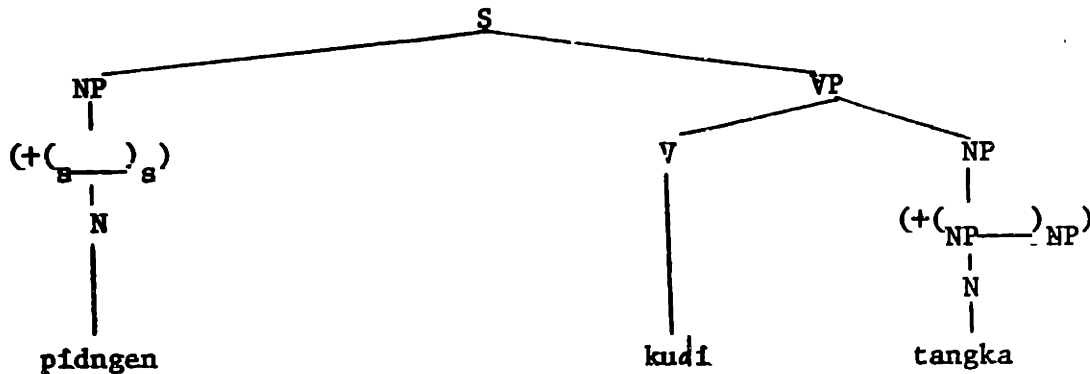
Case-marking is effected by a convention which assigns the feature $(+(VP_)VP)$ to those NPs dominated by VP, as well as $(+(s_)s)$ to the subject, and so on. More generally, an NP is assigned a feature reflecting the node which immediately dominates it. This is stated in Hale (1970) as:

35 The Case Marking Convention

$NP \rightarrow (+(_)_)$, where X is the node label immediately dominating NP.

This convention converts 34 to 36:

36



In Hale's formulation, later rules of the grammar assign the actual cases, some of which are indicated in the article in an informal way, shown here in 37. Hale's 'objective' case, is the Accusative, and his

'agentive' case the Genitive.

- 37 nominative case = $(+(\text{ }_{\text{S}}\text{ }_{\text{S}}))$
 objective case = $(+(\text{ }_{\text{VP}}\text{ }_{\text{VP}}))$
 agentive case = $(+(\text{ }_{\text{AGT}}\text{ }_{\text{AGT}}))$

The theory proposed by Hale (1970) involves two basic claims, to which I give the names Domination Hypothesis and Case Assignment Hypothesis:

38 a. The Domination Hypothesis

"case...is strictly a function of the domination of noun phrases" (p. 763)

b. The Case Assignment Hypothesis

"the case features (which reflect the domination of NPs - TJK) are assigned by means of the case marking convention" (p. 763), which convention has already been stated in 35 above.

I will now explore these two hypotheses and their consequences.

23.2.3 Some minor considerations

The node AGT in Hale's (1970) grammar is intended to express the generalization that the same verbs which are subcategorized for phrases expressing an instrument (i.e. the transitive ones) are those which are subcategorized for the passive. That is, the node AGT dominates not only the agent phrase of a passive, but also the (optional) instrumental phrase. However, these two never have the same surface case in Lardil⁵, and never demonstrably form a constituent. Thus the Hale (1970) grammar for Lardil must be supplemented with additional rules to differentiate agent and instrumental phrases. This is sufficient to falsify the claim made in Hale (1970) that domination is a sufficient condition for case assignment.

The fact that agent phrases receive the Accusative case in non-future sentences strongly suggests that these NPs are dominated by VP anyway, within the Hale (1970) theory of case assignment. So these are good reasons for abandoning Hale's node AGT.

One other motivation for the AGT node is, of course, the fact that the agent of a passive is distinctively inflected in the Future tense, receiving the Genitive case. With the abandonment of the AGT node, this fact must be accounted for in some other way. I turn to this problem below.

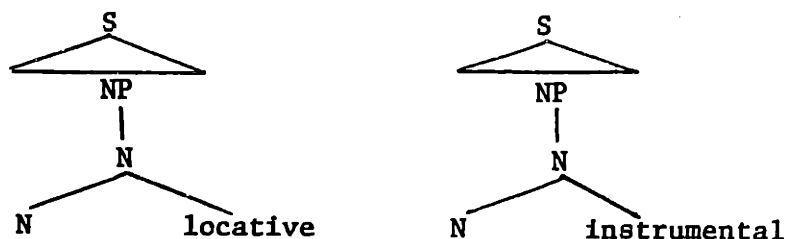
One possible counter-example to the Domination Hypothesis should be eliminated at this point. Time expressions, e.g. tiwadku 'yesterday', pilaa 'tomorrow', are not infected for Accusative case. There are two reasons why this is no problem for the Domination Hypothesis: firstly, even though at least some time expressions (such as tiwadku) have the appearance of being NPs (tiin 'this' plus wadku 'day'), such expressions are syntactically and morphologically different from NPs. Thus no time expression undergoes Topicalization, and a form such as tiwadku, though no doubt historically two words, may inflect like a single word: e.g. tiwadkungad 'yesterday/NF' occurs as well as tiinadwadkungad, 'this/NF/day/NF.'

In the light of these facts, any consideration of the Domination Hypothesis can reasonably set aside the time expressions, as adverbial forms.

Before considering whether the Domination Hypothesis accounts correctly for the distribution of the Accusative and Nominative cases, it is appropriate to consider the question of the surface cases like instrumental and locative, which are not predictable from domination only, at least in terms of major phrase categories, VP and S. Since as noted above, instrumental phrases subcategorize verbs, the instrumental phrase must be dominated by VP, just like those NPs which receive accusative inflection. One possibility is that locative and instrumental NPs are dominated by special nodes, say, LOC and INSTRUM. However, these nodes are otherwise unmotivated (as we saw with the Hale (1970) proposal for an AGT node), playing no other role in the grammar besides triggering spell-out rules for the locative and instrumental cases. Another possibility is the null hypothesis with respect to the transformational apparatus, i.e., that instrumental and locative cases are generated by the base in their surface structure position, as affixes in the NPs. In the absence of any motivation for a different structure, the null hypothesis will be adopted here.

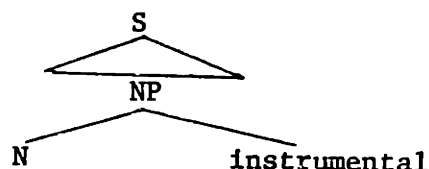
That is, I will assume that the base generates structures like these:

39



Case morphemes are clearly suffixes on words in the NP and not constituents of NP. This is captured in the representation (13) though not in other conceivable alternatives like (14)¹⁰:

40



23.2.4 The Revised Domination Hypothesis

What we have seen so far is that some cases (Instrumental, Locative) are assigned immediately in underlying structure, in contradiction to the Domination Hypothesis 38a. Moreover, the node AGT proposed in Hale (1970) has been eliminated. With these modifications, the Domination Hypothesis does appear to be more workable.

41 The Revised Domination Hypothesis -- (RDH)

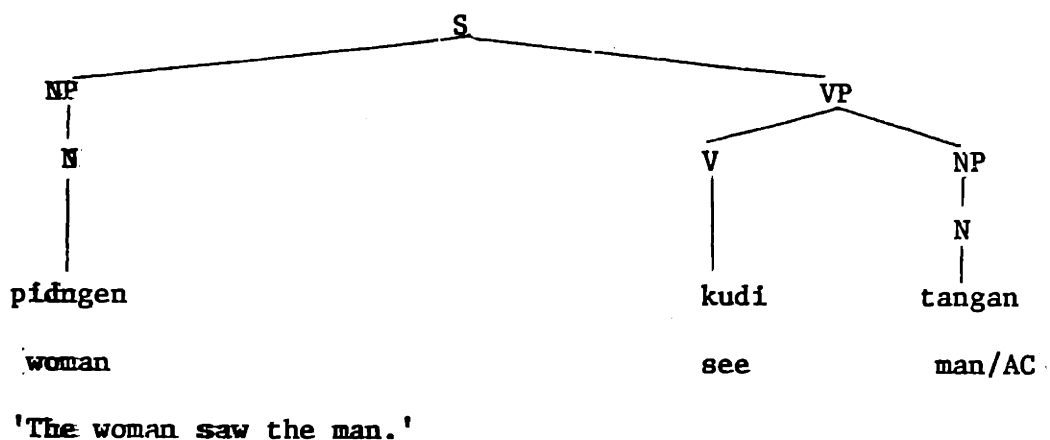
There are certain cases generated in the base: in Lardil, including at least locative and instrumental. Otherwise, case is strictly a function of the domination of NPs.

Essentially, the Domination Hypothesis as elaborated for Lardil assumes the existence of the node VP, and requires that case be assigned to NPs dominated by VP and not receiving a case in the base remain uninflected. Let us see just how well this works.

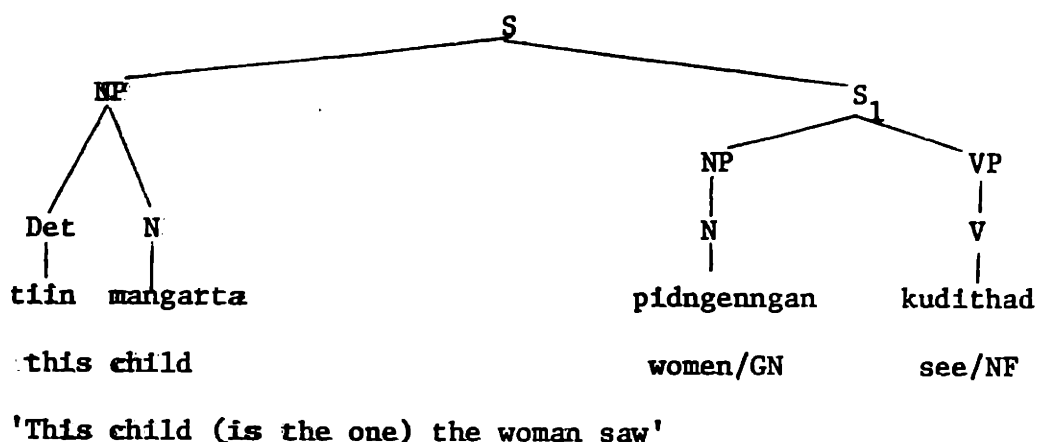
23.2.5 Nominatives

First, I will survey briefly the range of uninflected NPs that the Revised Domination Hypothesis (RDH) correctly accounts for. The subject of a simple sentence and the Topic in a topicalized sentence are nominative — the RDH handles these facts, since we assume that these NPs are not in the verb phrase. The surface structures in which these NPs occur are exemplified in 42a,b with the NP node in question circled.

42. a. subject of a simple sentence:



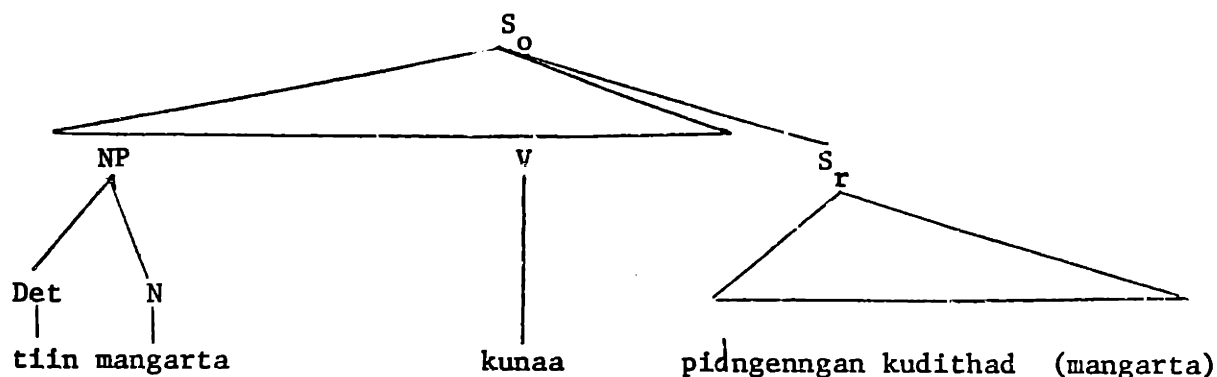
b. Topic NP (assuming that topicalization involves Chomsky-adjunction creating S.):



The structure of 42b can be assumed to be the same one involved in a relative clause. (This is possible in a framework with only a weakly developed theory of substantive universals, like transformational grammar: in such a framework, we can simplify the grammar of an individual language by relating distinct but morphologically similar clause types.)

Alternatively, it could be assumed that topicalized sentences are complex sentences, involving a main clause consisting of the Topic plus the existential verb kunaa 'be' and a relative clause. The verb and Eventive enclitic kunaa kum then delete. The derivation in this manner is as in 43 below.

43



There is a problem with this analysis in that the relativized nominal, NP_r , never appears overtly in a topicalized sentence, even though its deletion is optional in real relative clauses.

In any case, it is not necessary to pursue the potentials of 43 for present purposes, because it reduces the cleft construction to a relative clause instead of vice-versa and so it makes no difference at this point. So I'll assume 42 for the analysis of this section and the next.

A dislocated nominal is uninflected, and so is the subject 44b, -in contrast to the subject of a topicalized sentence, which is inflected for Genitive, 44c.

44. a. Tanka kupari kun tiinin wangalkin.

1 make this/AC 2/AC

'The man made this boomerang.'

1 2

b. Tiin wangal, tangka kupari kun.

DIS/2 1

'This boomerang, the man made'

DIS/2 1

c. Tiin wanal tangamen kuparithad kun.

TP/2 1/GN make/NF

'This boomerang (is the one) the man made'

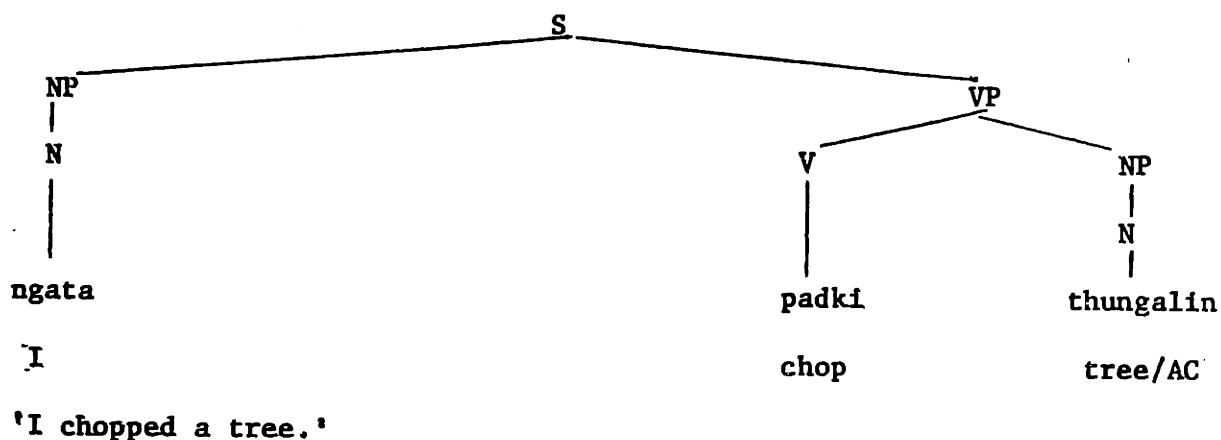
TP/2

1

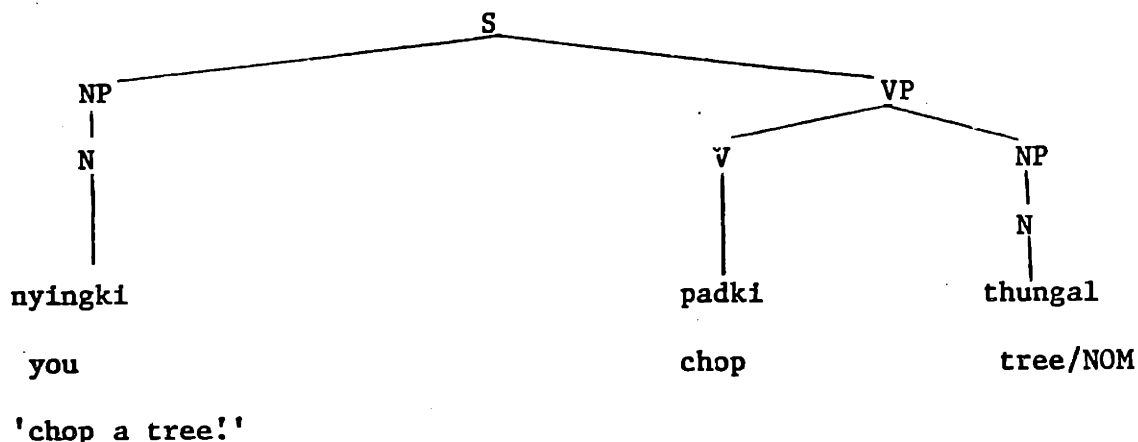
There are, however, two categories of NP which are uninflected in surface structure which definitely cannot be handled by the RDH. Firstly, the direct object of an imperative verb is uninflected if it is third person; if it is first person though, it is inflected for Accusative (if there are conjoined nominals, then the presence of a first person pronoun requires the presence of Accusative on the entire NP. Now, the direct object of an imperative must be in the VP, just as is the direct object of a non-imperative. The absence of the Accusative can only be expressed by reference to factors other than the domination of the NP. namely the category of imperative and the person categories of the NP in question.

45. a. declarative:

(surface structure)



b. imperative:



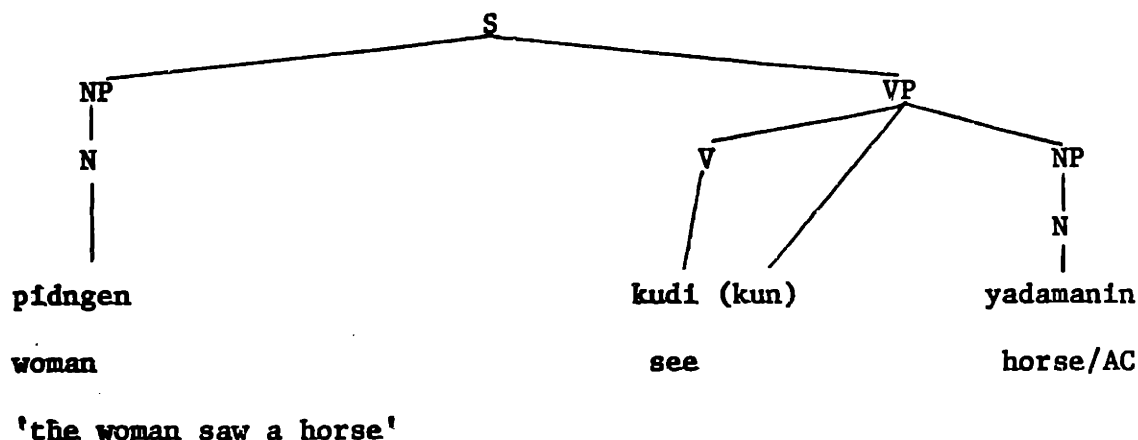
It is possible that the absence of the Accusative in the imperatives is handled as follows. The Accusative is assigned in the imperative, but then is deleted in imperative sentences.

This brief discussion has been sufficient to demonstrate that the Domination Hypothesis and the RDH are stated too strongly. It shows, at the very least, that case is at most partly determined by the domination of NPs, and is not "strictly a function of domination" (Hale 1970: 763).

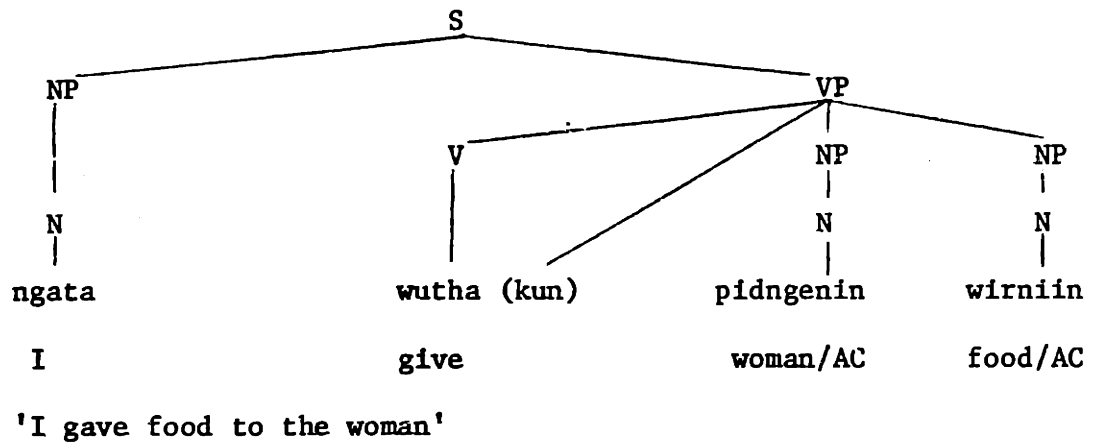
23.2.6 Accusatives

The RDH correctly predicts that the following NPs receive accusative case in surface structure. Since the verbs are subcategorized for such NPs, we assume that these NPs are dominated by VP.

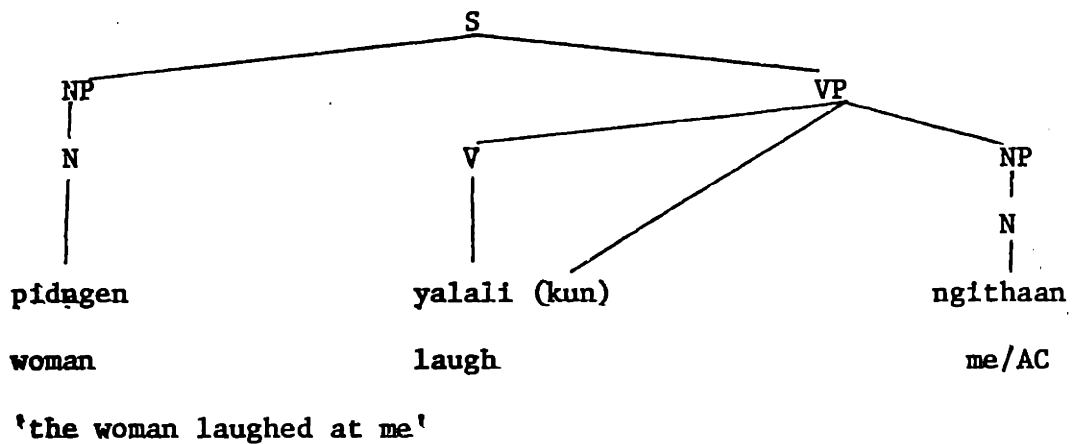
46. direct object of a transitive active verb:



47 indirect object:



48 complement of non-motional intransitive verb:



The agent of a passive is inflected, in a clause in which the Non-Future Tense has been deleted, for Accusative case.

49. a. Active: Ngawa petha kun ngithunin yadamanin.

I bite my/AC 2/AC

'a dog bit my horse'

1 2

b. Passive: Ngithun yadaman peyi kun ngawun.

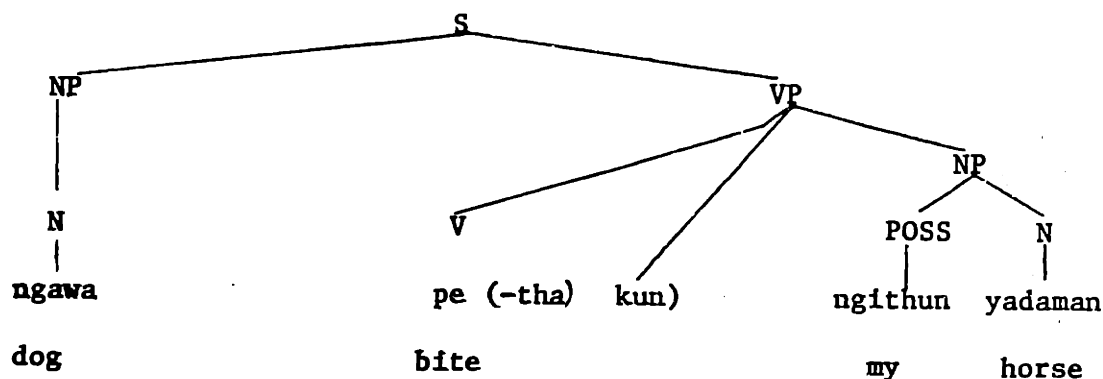
my 1 bite/R C/AC

'my horse was bitten by a dog'

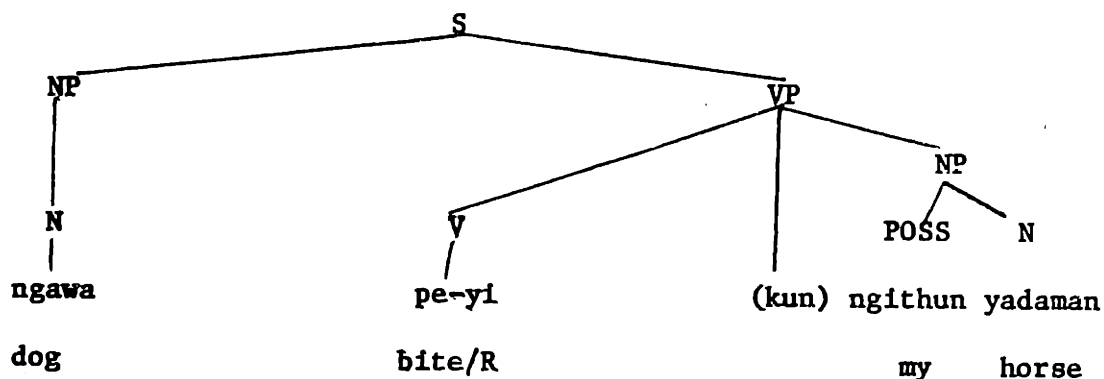
1 C

This fact can be accounted for with the Revised Domination Hypothesis, as follows. I assume that verbs are subcategorized for the Passive; for a given verb, the Passive is ungrammatical (the intransitive verbs, plus verbs like wu- 'give', see Chapter Seventeen or optional (the intransitive verbs). For some verbs, such as yuluu the Passive appears to be obligatory, a fact discussed in Chapter 17. For the majority of passivizable verbs, there exist active and passive pairs, as for example the following which underlie 50 a,b:

50a. (=49a)



b. (=49b)



The surface form of 49a is derived from 50a by the assignment of Accusative case to the direct object. In 50b, however, the presence of the morpheme -yi (R) triggers the Passive rule 51, which inter-

changes the subject and direct object NPs. According to the hypothesis we are presently examining, case categories derive from structure, and the transformational rules have nothing to do with assigning case. Therefore, the Passive can be stated as a transformation, 51, with no mention of the case categories; I assume here, as earlier, that underlying order is Subject-Verb-Direct Object.

51 Passive Transformation (A First Approximation)

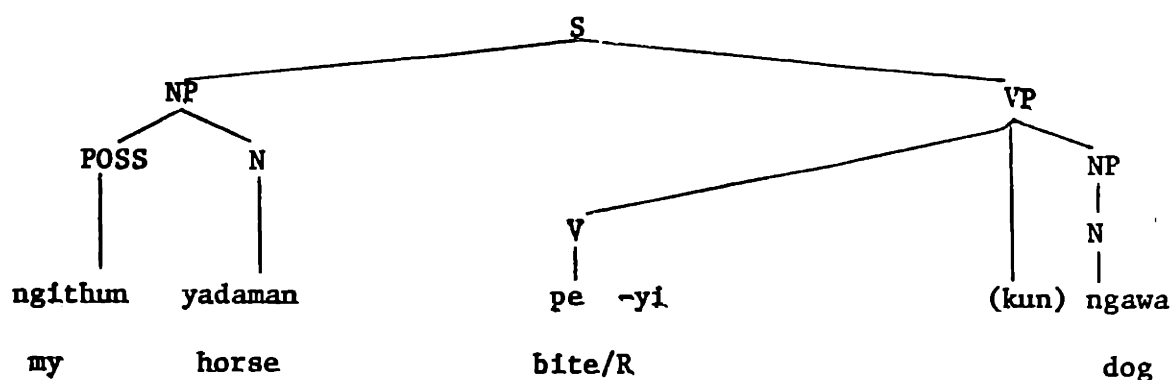
X - NP - V R - (Tense-Mood) (EV)- NP - X

1 2 3 4 5

1 4 3 2 5

From 50b, then, the structure 52 is derived. The Accusative case can now be assigned to the agent, since the latter is dominated by VP, and the surface structure 49b is the result. The underlying direct object has become the surface subject, and so receives no case inflection.

52



Thus the Revised Domination Hypothesis accounts for the case-marking of Direct Objects, Passive Agents (in clauses uninflected for Tense), and the Subjects of simple active and passive sentences.

23.2.7 Subjects of Infinitives

An additional statement is required for the Accusative inflection displayed by the surface subject of an infinitive clause. This case appears whether the verb in the infinitive clause is intransitive, transitive active, or transitive passive:

53. a. Ngata kupari wangalkin, ngimpeen kunaajid parngar.

1 make 2/AC 1/AC sit/INF stone/INF

'I made a boomerang while you were sitting on the stone.'

1 2 1

b. Ngata kuparithur wangalkur, maanangan padkijid thungalur.

1 make/F 2/F 1/AC chop/INF 2/INF

'I'll make a boomerang, while the child chops down the tree.'

1 2 1 2

There is no reason to suppose that the NP in question is within the VP of its clause: it is indeed the subject (including even the derived subject of a Passive), and so cannot receive the Accusative within its own clause under any analysis entertained so far in this discussion. (Even if the NP were inside the VP of its own clause, something other than Accusative would be expected, e.g. Infinitive or Genitive.)

The structure of the subordinate clauses in 53 must be assumed to be the same as that of these corresponding simple sentences:

54. a. Nyingki kunaa kun parngaa.

you sit rock/LC

'You were sitting on a rock'

b. Mangarta padkithur tiungalur.

1 chop/F 2/F

'The child will chop down a tree'

1 2

Let us then consider the possibility that the subject of the infinitive complement receives its case by virtue of some other aspect of the structure of the sentence.

Recall that time adverbs such as tiwadku 'yesterday' pilaa (n-) 'tomorrow' typically occur without the enclitic morpheme kun 'Eventive' appearing on the verb, 55. But these adverbs can co-occur with Tense, 56.

55. a. Ngata kudi kun kentapalin.

I see 2/AC

'I saw a dugong'

1 2

b. Ngata kudi kentapalin tiwadku.

'I saw a dugong yesterday'

56. a. Ngata kudithur kentapalur.

1 see/F 2/F

'I'll see a dugong'

1 2

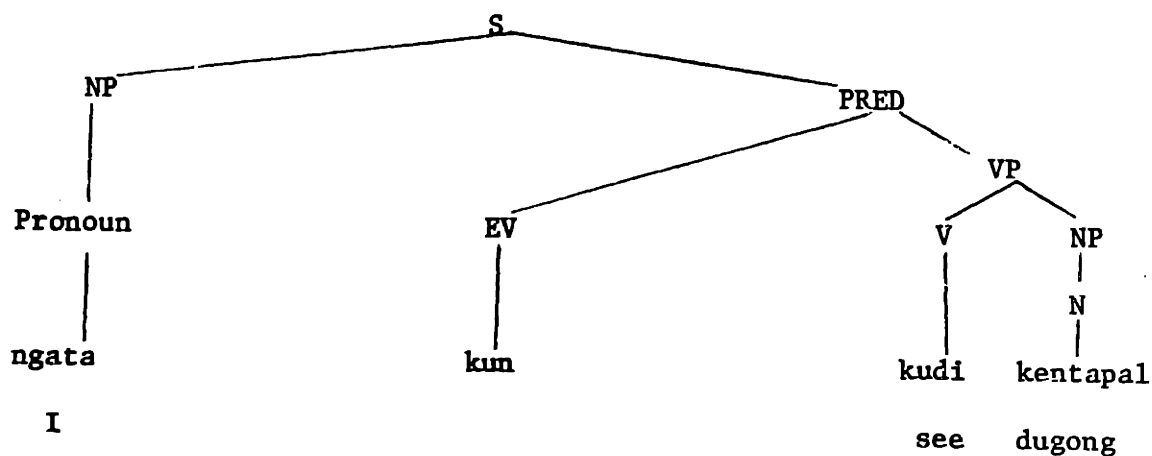
b. Ngata kudithur kentapalur pilaankur.

'I'll see a dugong tomorrow'

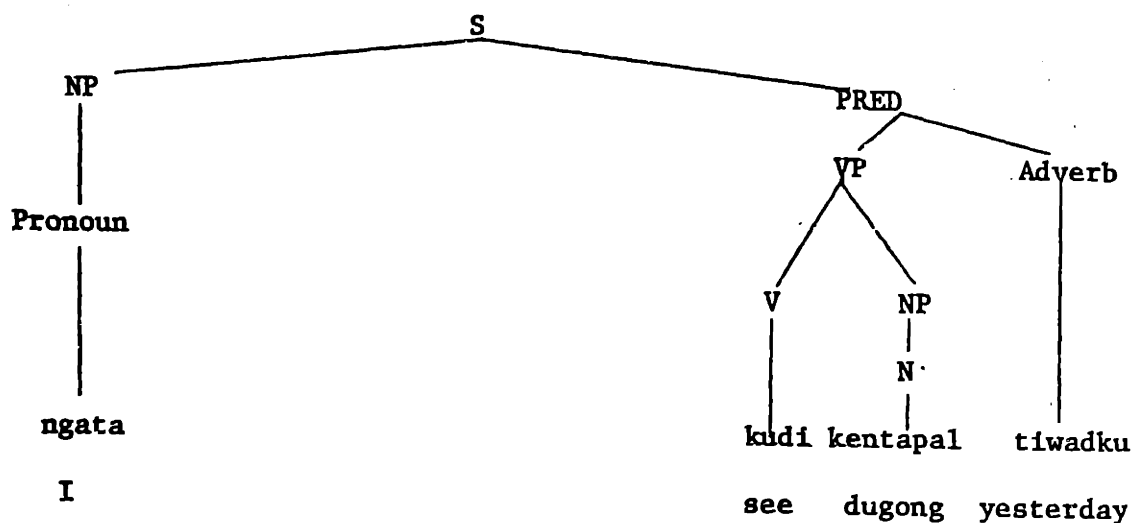
There are several possible ways to express the complementary distribution of the time adverbs and the enclitic kun. For present purposes, it is sufficient to observe that there exist co-occurrence restrictions among time elements. Furthermore, since verbs are sub-categorized neither for tense nor for time adverbs, I assume that

these are both generated outside of the VP, i.e., I assume that the base generates structures like these:

57



b. (=55b)

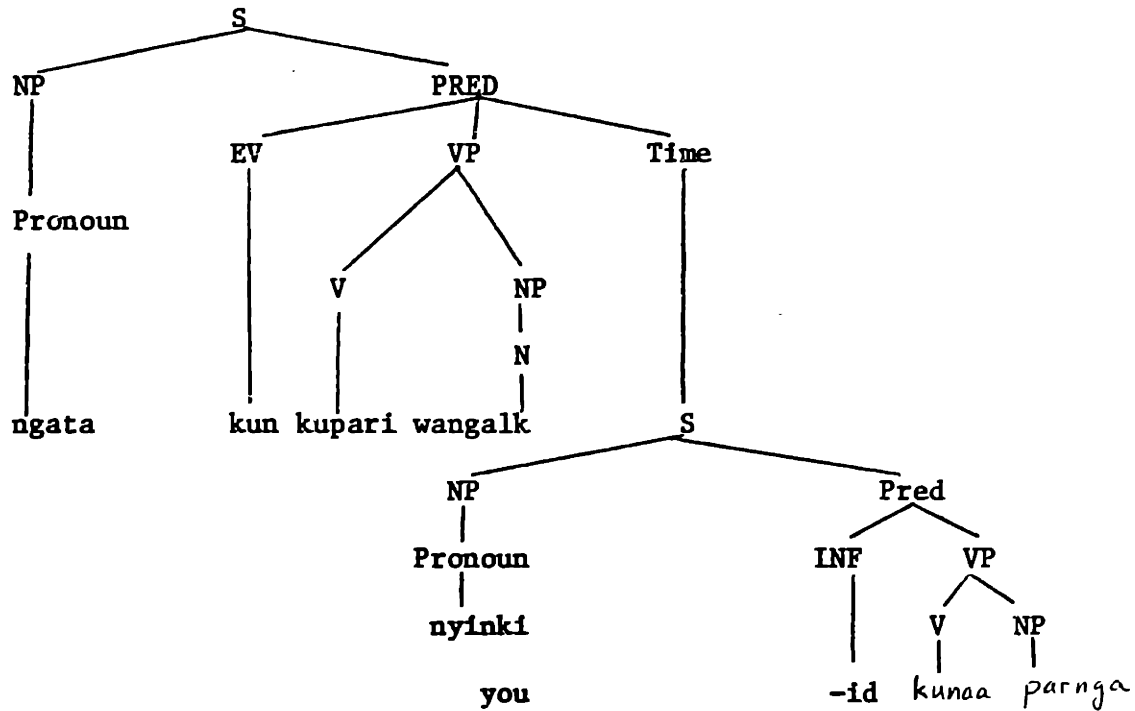


The surface sentences are derived from 57 by the assignment of Accusative case as required, and by the re-positioning of the Eventive and Adverb formatives as appropriate.

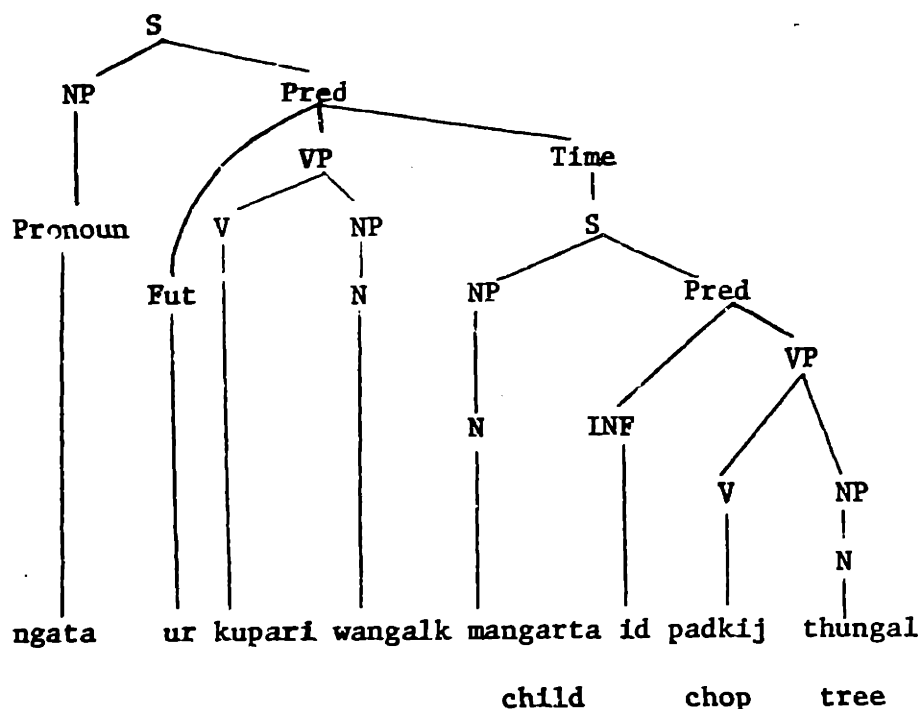
Returning now to the infinitive clauses, observe that they exhibit selection restrictions in exactly the same way as the simple time adverbs.

That is, the infinitive clause is a sentential adverb. With that conclusion, we are now ready to suggest a structure for the examples of 53: here are the structures -- prior to assignment of Accuastive and prior to final placement of tense or the Eventive:

59 a. (=53a)



b.



The remaining problem in the derivation of these sentences is the Accusative case on the subject of the time clause. The RDH will not work here as was already noted, since the NP is not immediately dominated by VP; in fact, it is not dominated at all by a VP node. There are two solutions here that are worth considering: firstly, this may simply be outside the scope of the analysis, as in(59)

59. There is a separate rule assigning case to the subject of the Infinitive clause, unrelated to the assignment of Accusative case elsewhere.

If this solution is adopted, then the RDH must be modified in wording to state that there are two structural configurations in which Accusative case is assigned; when dominated by VP, and when the subject of an infinitive.

The second part of Hale's hypothesis, namely that the structural information determining case can be expressed in terms of features created by the Case Assignment Convention, must be abandoned: to assign case to the subject of the infinitive, other information is needed.

60 The second solution is:

Accusative case is assigned to any otherwise
uninflected NP that is not immediately dominated
by a root.

This solution is simpler than the other: there is only one structural criterion for assignment of Accusative. Like the first solution, this one implies the abandonment of Hale's Case Assignment Convention, for recourse is had instead to the notion of root sentence. Furthermore, rule ordering is necessitated. The formal statement of this solution is not straight-forward, however. Nor, ultimately, would it handle the full range of case assignment as I will show below.

Solution 60 will, at least, handle the infinitives, since they are not root sentences, and so the subject can be assigned the accusative.

In Lardil, conditional clauses, purpose clauses, clauses of reason, and notably restrictive relative clauses are always immediately dominated by the main clause S and so count as root S's in the framework of analysis we are pursuing here, in all instances where they contain an uninflected subject or other uninflected NP, and thus the solution 60 is consistent with these facts.

Our conclusion to this point must be that the RDH was stated much too strongly, and insofar as structure determines case, we have the two

alternatives, 59-60. If it can be shown that there is some NP that is (i) not otherwise assigned case and (ii) dominated by an S that can't be a root S, then 60 is falsified. Just such a situation exists, as the sentence below illustrates.

61 Ngata werethur niwenthar kungunkur tangkar, niya wampalur

1 send/F

2/F 1 inland/F

kunaathur penkiwur ngukur.

be/F swamp/F water/F

lit 'I'll send my sister, for her to live in the inland swamp water'

1

2

1

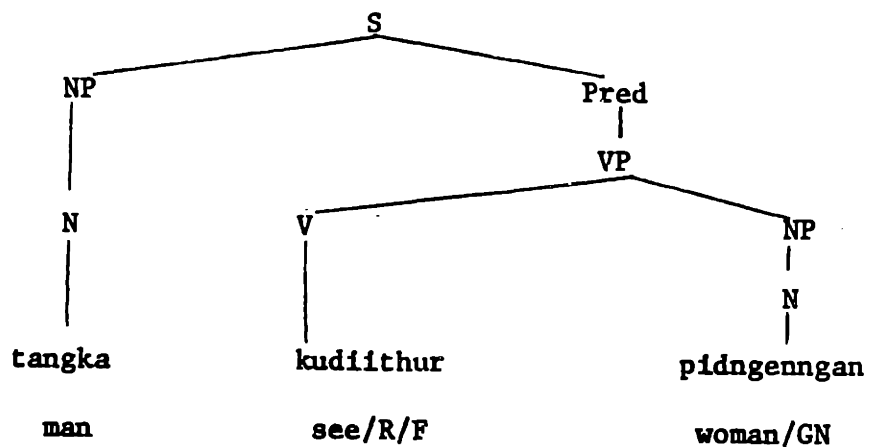
The subordinate subject in this sentence is underlined. It is in the nominative, not in the accusative as 60 predicts. However, the alternative solution 59 is still valid, the essence of this version of the Domination Hypothesis being that there is no single rule assigning the Accusative case.

Moreover, it is clear that the Case Assignment Convention is very limited in utility. The greatest inadequacy in the RDH and CAC has not yet been discussed, however: it will be dealt with in the next section, 23.2.8.

23.2.8 Nominals in the Genitive

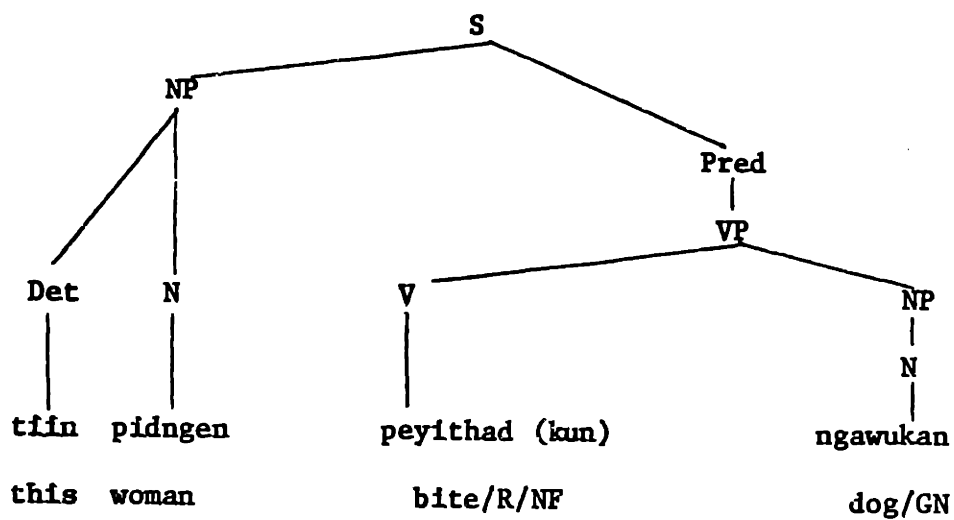
The RDH falls down most seriously in its failure to handle the following, for these NPs receive the Genitive case, and domination information does not account for it.

62. a. agent of a passive in a tense other than Non-Future Uninflected



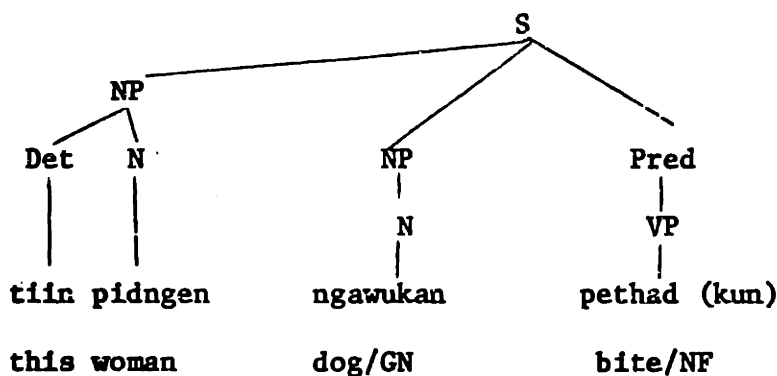
'the man will be seen by the woman'

b.



'This woman was bitten by a dog'

63 subject of a topicalized sentence:



'(It was) this woman (that) the dog bit'

The Revised Domination Hypothesis, even if supplemented with the observations made in the previous sub-sections, makes incorrect predictions about case assignment in 62a, b and 63. The case of the passive agent in 62a should be either Accusative or Future: the Revised Domination Hypothesis assigns Accusative to it, since it is dominated by VP. But it could also be Future, since we know that concord applies in Future tense clauses, and possibly the agent of a passive is subject to concord in tense. Thus the appearance of Genitive case here is totally unexpected, and not explainable on the basis of the Revised Domination Hypothesis, or concord.

Similarly, the analysis adopted so far predicts that the agent of the Non-Future passive 62b will be either Accusative, according to its domination, or Non-Future tense, if it is subject to concord. And again, the prediction is incorrect, for the agent again takes the Genitive case.

The subject of the topicalized sentence 63, is dominated by an S node that is a root sentence. It was concluded from the study of infinitive complements that 59 (or the equivalent) must be a part of a

transformational grammar of Lardil. If 5a is adopted, then we predict that the subject of a topicalized sentence will be uninflected: neither the Revised Domination Hypothesis nor 5a will assign any case category to that NP. This prediction is incorrect: the subject of a cleft sentence is Genitive. (The adoption of 60 would not improve the situation: that solution predicts that the subject of a topicalized sentence, being immediately dominated by a root S, is not assigned any case -- still a wrong prediction.

Recall that we eliminated the node AGT in Passive sentences, after considering Hale's Domination Hypothesis. Even if this node were now reinstated, -- let us ignore the clauses without overt tense for a moment -- then we could still at most handle the sentences of 62 using the Revised Domination Hypothesis. This could be done by stating that an NP immediately dominated by AGT receives the Genitive case; this is the way Hale accounted for the Genitive in fact. But this still leaves the Genitive case in the topicalized sentence 63 unexplained. So this alternative need not be considered further.

The way that both the DH and the RDH have been interpreted is that cases are assigned according to domination with respect to surface structure. This is not explicitly stated by Hale, but since case assignment must make reference to domination relations in surface structure, it has been interpreted up to this point as operating only at that level.

As the data clearly show, the configuration to be examined for case assignment must be that which exists independently, at least in part, of word order, insofar as word order variation doesn't reflect gramma-

tical relations. In a transformational grammar, this kind of word order is derived by the rule of "scrambling" mentioned earlier. Here, I am referring to structural configurations independent of "scrambling" when I speak of surface structure.

That case assignment applies at the level of surface structure is the interpretation that must be used for most structures, for example, for the derived subject of a passive sentence which is in the nominative. (More properly, it shows that case assignment applies at the earliest to cycle-final structure.) Since the case marking convention does not work completely satisfactorily, let us consider a modification in the application of the case marking convention. Suppose that the convention applies to the output of the base component as well as to the surface structure, for any one sentence. Then the agent of a passive will be assigned features for both sentence domination and verb phrase domination: on this basis, it can be distinguished from, say, the direct object of an active transitive verb, which received only the feature for VP-domination. This is illustrated in the derivation of 64, shown in 65-66. The underlying structure is 65: the case-marking convention applies at this point to assign the domination features shown in 65b.

64 Wangal kupariithur tangamen.

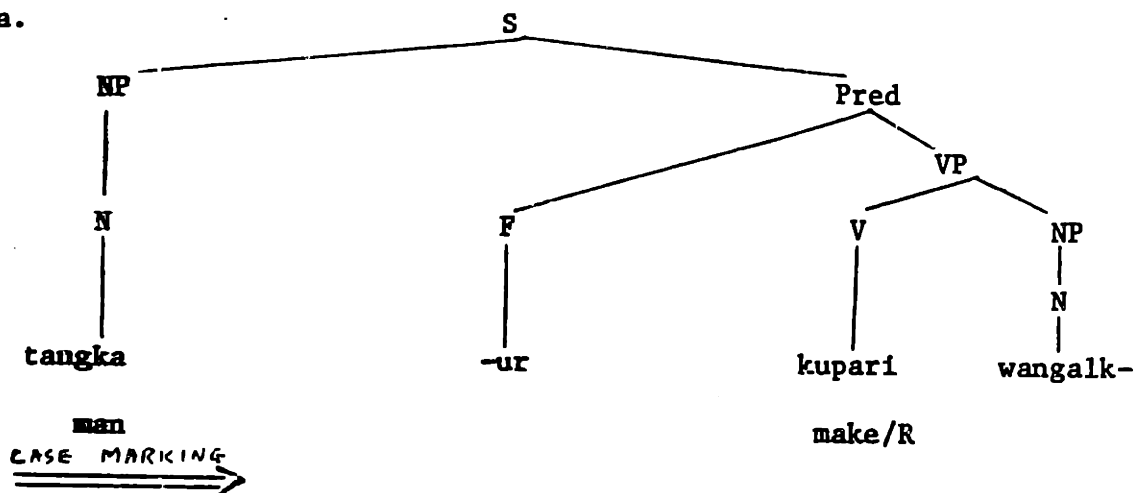
1 make/P/F C/GN

'The boomerang was made by the man'

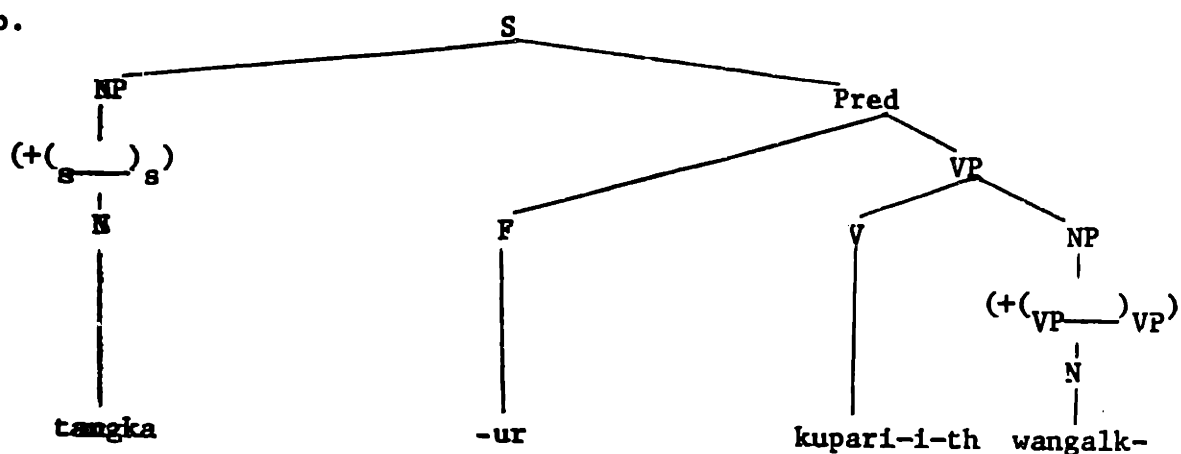
1

C

65 a.

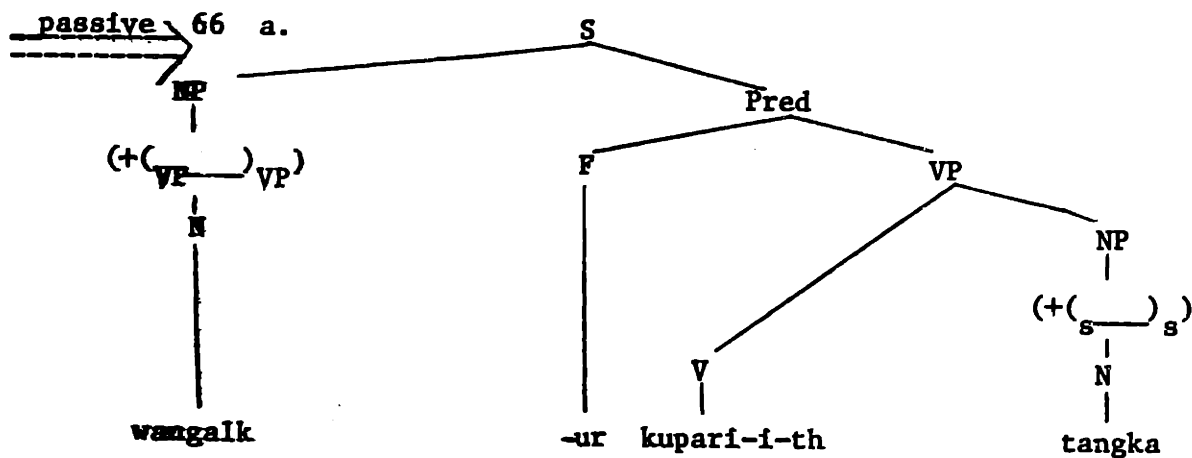


b.

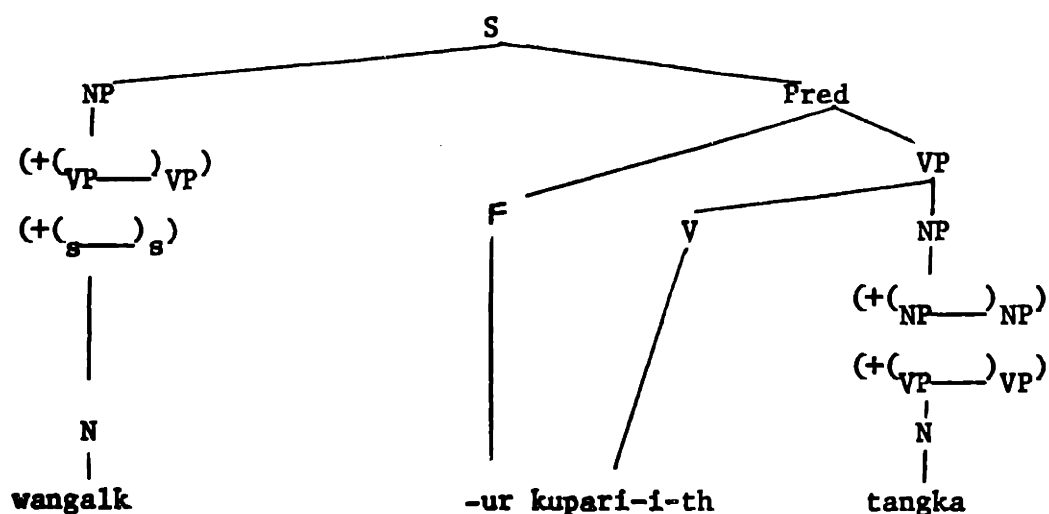


Next, the passive rule must apply, converting 65b into 66a.

Then, at this point the case marking convention is applied for a second time, yielding the tree shown in 66b, which is interpreted by the rules assigning the actual surface cases.



case marking > b.



The problem becomes readily apparent from 66b: the derived subject and the agent of the passive are not distinct in terms of the inventory of domination-features. Both have the features for sentence-domination and for VP-domination. Therefore, to make the case marking convention really work, it would have to be extended to reflect the order of assignment of the domination features. The approach suggested by Hale's hypothesis requires adding tremendous power to the theory, not only using ad hoc features, but in addition recording the derivational history of every NP to the extent that the order of application of feature-creating rules be recorded. Yet this power is really only needed to account for the case of the agent of passive sentences. (It is evident that the restricted power to record the history of derivation in Relational Grammar is much more satisfactory, because it distinguishes precisely the right set of NPs, i.e. chomeurs. cf. section 23.4). Moreover, this approach does not even fully account for the distribution of the Genitive on underlying subjects, since this is also the case which is assigned to the subject of a topicalized sentence, even when

it remains in subject position in the surface sentence.

The core of the problem in Lardil case assignment is effecting the correct assignment of Genitive case to the underlying subject, and I will now explore some alternative ways to do this, still in a transformational, non-relational framework, showing that they do not work.

23.3 Other Transformational approaches

23.3.1 Subjective Case Hypothesis

In section 23.4 to follow, I propose a relational alternative to the Revised Domination Hypothesis for assigning case. But first, I consider briefly the possibility that the Genitive case is generable with subject NPs in the base of a transformational grammar. This proposal is stated in 67 below: I will argue that it is untenable.

67 Subjective Case Hypothesis

- a. Subjects are generated in the Genitive case in the base.
- b. The Genitive case is deleted in the syntactic component in certain environments.

To make the Subjective Case Hypothesis work, it must be shown that the surface subject NPs that are not inflected for Genitive can be precisely identified, i.e. the environment for (40)b must be stated in the grammar of Lardil. It is to this task that I direct my efforts in this section.

The agent of a Passive is Genitive if the verb is Future, Non-Future, or Admonitive. But in the Uninflected tense, the agent is in the Accusative.

68 Yadaman peyi kun ngithunin ngawan.

1 bite/R my/AC C/AC

'the horse was bitten by my dog'

1 C

The agent in the Uninflected Tense can be assigned the Accusative by a mechanism along the lines of the Revised Domination Hypothesis, but to be a candidate for Accusative assignment, the agent must first lose its Genitive case. The environment for Genitive deletion is following an uninflected verb:

69 Genitive \longrightarrow \emptyset / V# NP_____

There is one exception to the generalization expressed in 69. A pronoun agent of a passive retains the Genitive case even in the Uninflected tense, where other agents have the accusative:

70 Ngimpen yadaman rayi kun ngithun.

your 1 spear/R C/GN

'Your horse was speared by me'

1 C

Therefore, a condition must be attached to 69, to block that rule if the NP is a pronoun.

Even with this condition, the genitive deletion rule 69 still doesn't delete the case inflection in the full range needed. The surface subjects of active future and non-future inflected clauses are uninflected, although the verb is inflected. (The enclitic mara is the Countefactual.)

71 a. Ngawa pethur yadamankur.

1 bite/F 2/F

'the dog will bite the horse'

1

2

b. Tiin ngawa pethad yadamanad ngata mara nethur

1 bite/NF 2/NF 1 hit/F

'if the dog bit the horse, I would hit (it).'

1

2

1

It is possible to handle these sentences with a rule which is needed anyway. Any NP which is attached immediately under S by the topicalizing or dislocation rules loses its case:

72 a. Ngata netha kun yadamanin tiinkur thungal^{ur}.

1 hit 2/AC this/IN thing/IN

'I hit the horse with this thing'

1

2

b. Topicalized:

Tiin thungal ngithun nethad kun yadamanad.

TP 1/GN hit/NF 2/NF

'This thing (is what) I hit the horse with'

1

2

c. Left Dislocation

Tiin thungal, ngata netha kun yadamanin tiinkur thungalur.

1

2/AC

'this thing, I hit the horse with it'

One way to handle this loss of case is to delete the case of the NP which is affected by either of the two rules, i.e. to specify the deletion in the two rules. A more general solution involves moving the NPs in the two rules, retaining their underlying case — then, a case deletion rule can be used to delete the case for topicalized and dislocated NPs, i.e. deleting the case initially in a root S, statable ad-hody as:

73 case $\longrightarrow \emptyset / (\underset{\text{root}}{\text{s}} \text{ — } \text{x}$

Moreover, this rule will delete the Genitive case of the subject in sentences like those of (44). It will correctly leave the Genitive case on the subject of topicalized clauses since although the S dominating these NPs is a root S the subject is not clause-initial. This solution cannot handle the infinitive clauses. It is obvious these clauses cannot be root sentences (cf. the next chapter) — and yet the Genitive case must be deleted here, so that the Accusative case can be assigned. The only way to rescue the SCH is to handle infinitive complements quite separately from all other clauses, say by a separate rule which converts Genitive to Accusative case only for the subject of a simultaneous tense clause, or by a rule assigning Accusative directly to these NPs.

If the SCH is to work at all then, part 67b of it must be stated along the lines of 74 below. That is, we require three separate case deletion rules, only one of which is independently motivated. Moreover, one of the rules has a complex condition attached to it. SCH does have the virtue of relating the peculiarities of passive agent case to other facts

c. Passive in the Non-Future:

Tiin mangarta neyithad kun ngithum thapu[^]jikan.

1 hit/R.NF C/GN

'the child was struck by my brother'

1 C

d. Passive in the Future:

Tiin mangarta neyithur ngithum thapu[^]jikan.

1 hit/R/F C/GN

'the child will be struck by my brother'

1 C

e. Passive in the Admonitive:

Tiin mangarta neyiny[^]med ngithum thapu[^]jikan.

1 hit/R/ADM C/GN

'the child might be struck by my brother'

1 C

I conclude that any rule assigning the Genitive must be sensitive to the tense-mood of the clause. However, it is clearly not true that Genitive case appears on all NP_a derived from underlying subjects in the above three tense-moods. Consider the conditional clause in 76a; the simple Future 76b; the Dislocated 76c, all of which contain a Nominative surface subject which derives from the deep subject.

76 a. Mangarta wungithad wangalkad, ngata niwenthar nethur.

1 steal/NF 2/NF 1 2/F hit/F

'if the child steals a boomerang, I'll hit him'

1 2 1 2

b. Mangarta wungithur wangalkur.

1 steal/F 2/F

'the child will steal a boomerang'

1 2

c. Tiin wangel, mangarta wungithur.

DIS/2 1 steal/F

'this boomerang, the child will steal (it)'

DIS/2 1

The Genitive case appears on the surface when one of the two rules, Passive or Topicalization, has applied. This is also true of the environment in which pronouns receive the Genitive. Suppose, then, that the Genitive case is assigned to the deep subject when a rule applies to the sentence.

77 Subjective Case Insertion Convention:

When a clause with tensed verb is modified by any of certain transformational rule the subject receives the Genitive case.

Several movement rules which could be proposed for Lardil play no role in the assignment of Genitive case to the subject: Dislocation, Question, Fronting, and others such as Detopicalization. If there is some general convention like 77, then there must be some way of distinguishing between the rules above which do not trigger Genitive assignment, and those rules which do, viz. Topicalization and Passive. The rules above all share the properties of being rules which do not change central grammatical relations, and with the possible exception of Detopicalization, are probably all post-cyclic in a Transformational Grammar. But this does not distinguish them as a set from Topicalization

and Passive. While the latter changes grammatical relations and is presumably cyclic, the same cannot be said for Topicalization, which is apparently a post-cyclic rule that does not change grammatical relations. So there is no way to distinguish the rules involved in the case assignment convention 77, apart from the ad hoc specification rules Passive and Topicalization:

78 Subjective Case Insertion Conventions (revised from 77)

The Genitive Case is assigned to the underlying subject when the Passive Rule or the Topicalization Rule has applied, in a tensed clause.

(In passing, I point out again that the underlying subject in an infinitive clause that is passivized does not take the Genitive; its inflectional form is neutralized with that of the direct object in an infinitive clause in taking the infinitive ending, cf. 79.

79 Ngata kudi kun maanangan, peyi[^]jid kun ngawur.

I see 2/AC bite/R/INF

'I saw the child, being bitten by a dog'

1 2 C

An alternative approach is to try and collapse the two rules, Topicalization and Passive, into one. Then it would be just as a consequence of this one rule that the Genitive case is assigned to the underlying subject. But these two rules cannot really be collapsed, even if we set aside for a moment the observation that the Passive is a cyclic rule that changes grammatical relations while Topicalization is a postcyclic rule that doesn't change grammatical relations. In 80 and 81 below I have set out the two rules in transformational form.

| | | | | | | |
|----|----------------|--|---|---|---|---|
| 80 | Topicalization | NP - V $\left\{ \begin{smallmatrix} F \\ NF \end{smallmatrix} \right\}$ - X - NP - X | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | 4+1 | 2 | 3 | Ø | 5 |

| | | | | | | |
|----|---------|-------------------------|--------|---|---|--|
| 81 | Passive | NP - V+R+Tense/- NP - X | | | | |
| | | 1 | 2 Mood | 3 | 4 | |
| | | 3 | 2 | 1 | 4 | |

(Condition: 4 dominates a demonstrative (tiin, kiin, or pronoun))

It is impossible to collapse the two rules: the word order in the structural changes differs; Topicalization has a restriction on Tense-Mood that is lacking for the Passive; and Topicalization requires the fronted NP to contain a personal or demonstrative pronoun.

There is one other transformational alternative to the ad hoc statement 77. This involves abandoning the attempt to find a generalization for the surface distribution of a single case category like Accusative or Genitive. The insertion of these cases can, at least partially, be stated as a part of the two rules Passive and Topicalization. That is, regardless of whether the Case Assignment Convention or its equivalent plays a role in assigning Accusative to direct objects and Nominative to subjects, in transformational form are thus:

| | | | | | | | |
|----|----------------|--|--|---|---|---|-----------------------|
| 82 | Topicalization | NP - V + $\left\{ \begin{smallmatrix} F \\ NF \end{smallmatrix} \right\}$ - X - NP - X | | | | | (Condition: as in 80) |
| | | 1 | 2 $\left\{ \begin{smallmatrix} F \\ NF \end{smallmatrix} \right\}$ | 3 | 4 | 5 | |
| | | 4+1+GN | 2 | 3 | Ø | 5 | |

| | | | | | | |
|----|---------|--|---|---|---|---|
| 83 | Passive | NP - V + PASSV + Tense/ Mood - NP - X | | | | |
| | | 1 | 2 | 3 | 4 | |
| | | 3 | 2 | $\left\{ \begin{smallmatrix} 1+AC \\ 1+GN \end{smallmatrix} \right\}$ | | 4 |

(where: 3 is replaced by 1+AC if the verb is not tensed and by 1+GN if the verb is tensed)

(As 83 stands, it requires Non-Future Tense Deletion to apply first. In the framework assumed for the purposes of this section, this may well be a permitted ordering. But in the next section, only the Genitive case will be assigned by the Passive, and the later rule of Non-Future Tense Deletion converts Genitive to Accusative.)

23.3.3 Conclusions

To sum up:

The Domination Hypothesis and the Case Assignment Convention are much too strong. While it seems true that case is assignable on the basis of domination (or grammatical relations), as when nominative and accusative are assigned to subject and direct object, resp, case may also be determined by more semantically oriented relations (instrumental, locative), or by individual rules, e.g. Passive, Topicalization.

23.4 Grammatical Relations and Case Assignment

An adequate theory of grammar should largely predict the conclusions of the preceding subsection. Relational Grammar does this to a significant extent.

There are several features of this framework, and the theory being constructed by Perlmutter and Postal within it, that lead to this result.

Firstly, it has to be realized that the construction of rules proceeds from rather different perspectives in typical transformational studies and the Relational approach now under consideration. Work in Transformational Grammar has typically emphasized the construction of language particular rules and constraints on these. In this approach,

it is felt that, say a grammar of Lardil with only one rule for assigning the Accusative, or for assigning the Genitive, is to be preferred over a grammar with two or more such rules. If we pursue an analysis of Lardil in this way, then we feel compelled to find an 'explanation' of the kind Hale was led to propose for the assignment of the Accusative to the chomeur of the Passive, as well as for the Genitive assigned to that nominal under certain circumstances.

Yet it should be clear that an analysis of this kind has no bearing on other languages. The assignment of case to the chomeur of the Passive is highly variable, something that has long been recognized - For example, Jespersen (1924) describes the passive as follows: "...what was the object...in the active sentence is made into the subject in the passive, and what was the subject in the active sentence is expressed either by means of a prepositional group, in English with *by* (formerly *of*), in French with *par* or *de*, in Latin with *ab*, etc., or in some languages simply by means of some case form (instrumental, ablative)" (The Philosophy of Grammar, p. 164). Jespersen developed a notation for showing grammatical relations: he used S for Subject, O for (direct) object, and C for 'converted subject', i.e. the chomeur in a passive. Now, Jespersen himself has told us that "in analyzing English, (he) had to consider constantly the question, what is specially characteristic of that language and what may be termed universal" (Analytic Syntax, 1937, pp.90-1). In his discussion of the passive, Jespersen has indicated that the universal aspects of the passive are the change

in grammatical relation, from direct object to subject, and some sort of special case marking for the 'converted subject', but no other nominal. The particular case assigned to the 'converted subject' is clearly seen to be language particular and not something calling for explanation. While Jespersen specifically cites only certain IndoEuropean languages 84, his statement holds for others of that family 85, as well as non IndoEuropean languages 86 among them of course Lardil, 87. The case assigned to the chomeur is underlined in 84-87.

84 a. The child saw the man. The man was seen by the child

1 V 2 1 V C

b. French

L'enfant a vu l'homme. L'Homme a été vu par l'enfant.

c. Latin

Puer virum viduit. Vir ab puero visus est.

1 2 V 1 C V

85 a. German

Das Kind hat den Mann gesehen. Das Mann wurde von dem Kind gesehen.

1 2 V 1 C V

b. Norwegian

Barnet så ^o mannen. Mannen ble sett av barnet.

1 V 2 1 V C

86 a. Japanese

Kodomo ga ano hito o mimasita. Ano hito ga kodomo ni yotte miraremasita.

1 2 V 1 C V

b. ~~Nitinaht~~ (Wakashan)

Datccitl t 'a 'oxw ba'itlqats 'aq 'ōyoqw qō'as 'aq.

V 1 2
Datecitl'it t 'a 'oxw qō'as 'aq 'oxwit ba?itlqats 'aq.
V 1 G

c. ~~Lenni~~ (Salish)

Lengits cu mun?u cu swuy?qu?. Lengitng cu swuy?qu? u mun?u.

V 1 2 V 1 C

d. Korean

Ai-ka koki-lul po-ass-ta.

Koki-ka ai-eykey po-i-ass-ta.

(child) (fish) (see)

1 2 v 1 c v

87 Lardil

Mangarta kudikun tangan.

Tangka kuriikun maanangan.

1 **v** **2** **1** **v** **C**

The significant generalization about these sentences, when we consider a variety of languages, is the existence of 2 to 1 Advancement, not the case of the chomeur thereby created.⁷ In Relational Grammar, such crosslinguistic generalizations are stated in a direct manner; in other words, we are seeking substantive universals, and the assignment of case to chomeurs is not one.

Even if we did suspect that a generalization might emerge from the distribution of the Accusative or the Genitive in Lardil, we would not, in Relational Grammar, be inclined to examine certain dead-ends that were pursued in the previous sub-sections of this chapter. For example, it seemed initially plausible to try and collapse the Passive and Topicalization Transformations, something which turns out to be unworkable. But the framework of Relational Grammar predicts this result:

while the Passive is a transition between central grammatical relations, Topic is an overlay relation. Any similarities between passives and topicalized sentences is therefore fortuitous. (In fact, I assume below that the Accusative of the agent in a Passive is due to the Passive chômeur advancing to indirect object.)

Thus, if we wish to arrive at significant generalizations, Relational Grammar seems to be the more fruitful framework to work within. The purpose of the present subsection is not, however, to argue this point any further, but rather to work out how case is assigned in Lardil, given the Relational framework.

23.4.1 Case assignment

Given classic grammatical relations, case assignment in Lardil is as follows:

| | grammatical relation | case |
|-------------------|-----------------------|---|
| TERMS | 1 (finite clause) | Nominative |
| | 1 (infinitive clause) | Accusative |
| | 2 | Accusative |
| | 3 | Accusative (or Dative <u>-mari</u> ; see ch. 7, sec. |
| IMPURE DEPENDENTS | Instrument | Instrumental |
| | Location | Locative or Accusative |
| | Time | Nominative |
| | Goal | Affixes <u>-((k)i)ya</u> or <u>-mari</u> |
| | Source | Elativ (for demonstrative pronouns only); <u>-pudi</u> |

While I list -mari, -((k)i)ya, -pudi as case here, they are probably really verbs, as the studies of incorporation in the previous chapter show.

| OVERLAYS | Topic | Nominative |
|----------|-----------------------|---------------------------|
| | Relativized nominal | " |
| | Dislocatee | " |
| | Q | " |
| | Detopicalized nominal | (as for its central g.r.) |

The case for an overlay relation wins out over the case for a central grammatical relation, except for Detopicalized nominals.

23.4.2. Relation rules

Suppose that the derived subject in a passive is distinguished according to the modified Case Assignment Convention of section 23.2, with its derivational history fully recorded:

(1) + (vp)_{vp}

(2) + (s)_s

It is really only the last domination feature reflecting a grammatical relation that plays a role in Lardil Case Marking. This receives natural expression in a relational grammar, because the Passive in that framework is explicitly formulated as the rule that converts the grammatical relation direct object to that of subject. Thus case marking can be expressed here according to the final or classic, grammatical relation held by the nominal.

It must also be recognized, as was concluded in section two, that case assignment is also possible as a part of a specific relation rule, for the chomeur created by that rule.

23.4.2.1 Advancement (Passive)

The cases assigned to passive subjects are completely covered by the rules of 23.2. The chomeur created by the passive takes, however, either the Genitive, Accusative, or Infinitive, under circumstances which I have described previously. While Hale (1970) took the assignment of the Accusative to be the key here, it really seems that it is the Genitive which is assigned generally. However, a crucial difference in the approaches is that Hale assigned the Accusative by putative domination relations, while I propose to assign the Genitive to the chomeur created by the Passive rule. I contend that the Accusative and the Infinitive appear on this chomeur only in special circumstances.

The generality of distribution of the Genitive has already been noted. This case category appears on the converted subject in any clause which is overtly tensed or inflected for mood, i.e. admonitive. Moreover, the Genitive actually shows up on the converted subject in clauses unin-
flected for tense, viz. when that nominal happens to be first person singular. The appearance of the Accusative and Infinitive are actually highly restricted, then: to non-first person singular NPs that -

have undergone Non-Future Tense Deletion (ACCUSATIVE)

or have undergone Infinitivalization (INFINITIVE)

The Passive rule is, therefore:

88 Passive 2 \rightarrow 1

Side effects for Lardil: Chomeur marking is the Genitive

(Verb Marking ignored here)

The assignment of the Accusative/Infinitive affixes to the chomeur of the Passive in the circumstances described about is probably due to the subsequent Advancement of that chomeur to an Indirect Object, which is regularly assigned the Accusative.

23.4.2.2 Ascensions (Possessive or Subject Raising)

The clearest known case of an ascension out of a nominal in Lardil is Possessor Raising. The ascendeo possessor expression, having taken over the grammatical relation of the host, also assumes the case marking appropriate to that grammatical relation in place of the genitive of the possessor. But the chomeur retains the case of its relation borne prior to Possessor Raising (a statement I will modify slightly below.).

89 Yadaman petha kun maanangan marin.

1 bite 2/AC C/AC

'a horse bit the child on the hand'

1 2 C

This looks like an instance of case assignment according to the Chomeur Marking Law, because both the classic direct object and the chomeur (an erstwhile direct object) take the Accusative.

However, this principle doesn't fully account for all the facts, and another principle of case assignment does seem to be needed. That principle is one of agreement: the body part chomeur must agree in cycle final structure with the ascendeo or if the ascendeo has deleted, then with the controller of deletion. I have dealt with this in some detail in Chapter Seventeen.

23.4.3 Concord

Tense concord obliterates case in surface structures, but since the case category reappears when tense deletion has applied, I assume that the surface disappearance of case inflection is really a question of morphology, e.g. the direct object is assigned Accusative case but in a clause overtly inflected for tense, say Non-Future, the Accusative is $-\emptyset$. A sample derivation will illustrate this point. The morphological spell out rules for Accusative and Non-future are as follows (note the zero allomorph now posited for the Accusative).

- 90 NF \longrightarrow $\left\{ \begin{array}{l} \text{-ngadpa after non-nasal sonorants} \\ \text{-adpa after nasals and non-sonorants} \end{array} \right.$
- AC \longrightarrow $\left\{ \begin{array}{l} \text{- } \emptyset \text{ before NE, F, ADM, INF} \\ \text{- u after F, PRP, IN} \\ \text{- intha elsewhere} \end{array} \right.$

As an alternative to positing the zero allomorph for the Accusative when followed by a tense-mood, one might want to propose a general convention whereby Concord substitutes the tense mood for the case. But this proposal falsely predicts that any case inflection will be placed in the same way, when in fact no generalization is possible. While both the Locative (92) and Accusative have no overt form before a tense-mood, the remaining case category does: this is the instrumental, as in 91.

91 a. Ngata netha kun niween ngithun kungungankur wangalkur.

I Y 2./AC my POSS/GN/IN Instrument/IN

'I hit him with my brother's boomerang'

1 2 POSS Instrum

b. Ngata nethur niwethar ngithun kungungankuru wangalkuru.

1 V/F 2/F POSS/GN/IN/F Instrum/IN/F

'I'll hit him with my brother's boomerang'

Since no generalization is possible, I show the obliteration of the Accusative and Locative as a part of the morphological spell out rules, 90 and 92 respectively.

92 LC \longrightarrow { -- \emptyset before NF, F, ADM, INF
 -- nge after nasals
 -- e after non-nasal consonants
 -- V copy of preceding vowel

If this solution is accepted, then a consequence is that case, tense, etc., cannot be unordered features assigned to lexical items, but rather must be ordered in some way, e.g. as sequences of formatives. A direct object that undergoes Concord for Non-Future is phonetically say yadaman-ad 'horse/NF', while if that same NP is in a clause that subsequently picks up the Accusative again by Clause Agreement is phonetically yadaman-adpa which must be 'horse/NF/AC.

23.4.4 Other rules

Several other rules affect the case assigned to classic dependents, by deleting that case or converting it to some other.

23.4.4.1 Non-Future Tense Deletion

When the rule of Non-Future Tense Deletion applies to a clause, then in general the cases assigned in the cycle all appear instead of the tense.

23.4.4.2 Infinitivization

I have elsewhere distinguished two sources for Infinitives: one type deriving from a tensed clause when the subject undergoes an ascension; and a second type where tense is deleted by identity with a superordinate tense.

The Infinitive inflection distributes by Concord exactly like tense.

When Concord now applies in an infinitive, the Accusative of the indirect object that derives from an advanced chomeur in the Passive, will, like that of other indirect and direct objects, have the Infinitive formative added after it, and the allomorph of the Accusative in this environment *to* *ro*.

93 ngata kudi kun niween, peyijid kun yarputhur.

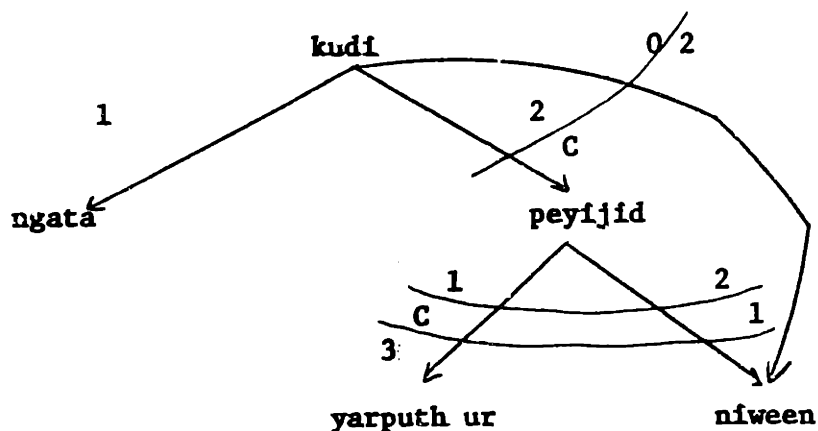
I see 2/AC bite 'R/INF 3/INF

'I saw him, be bitten by a snake'

1 2 3

The derivational history of the nominal yarputhur 'snake/INF' in 93 is as follows. It is the initial subject of the downstairs verb pe- 'bite'. When the direct object of that verb advances to subject, then yarputhur, by the Relational Annihilation Law, becomes a chomeur. Subsequently, Subject-to-Subject Raising applies, infinitivizing the downstairs clause. In a clause that has undergone tense deletion, the chomeur advances to indirect object: this dependent takes the Accusative, but the Accusative is regularly displaced by the Infinitive ending, hence: yarputhur 'snake/INF'. The following network shows this derivation:

94



There is an alternative analysis which is worth considering. Recall that the classic subject of an infinitive is assigned the Accusative. Suppose, that this case assignment applies to an any time subject of an infinitive, and that this rule overrides the assignment of genitive to the chomeur of a Passive. It is clear that yarputhur in 92/93 qualifies for the Accusative in this analysis. Then, the Accusative is displaced by the Infinitive affix in compliance with the general rule of Concord.

That is Infinitivization assigns the Accusative to a nominal that has held the grammatical relation subject at any point. The rule of Concord later introduces a distinction such that only the classic subject retains the Accusative overtly: any other nominal in the Accusative adds the Infinitive formative by concord, and then Accusative is zero.

The difference between an anytime subject and a classic subject is clear if we compare 93 and 95. Both ngimpeen (95) and yarputhur (93) are anytime subjects, but only the former nominal is a classic subject.

95. Ngata jilathur nyithur, ngimpeen pulejid yakur.

I drill/F fire/F 1/AC catch/INF 2/F

'I'll drill a fire, while you catch fish'

1 2

23.4.4.3 Imperative

In Chapter Twelve, I have suggested that an imperative clause (if not the second of two conjuncts) undergoes deletion of the imperative formative -(V)d. In such a clause, the Accusative case must also

be deleted if it has been assigned to a non-first person dependent,
and I take this to be a part of the Imperative Formation Rule:

96 Imperative Formation

Delete IM in a clause (if not the second of two conjuncts)

Delete any occurrences of AC within the same clause, provided it is
attached to a non-first person dependent.

Delete the subject optionally.

The derivations of the sentences in 97-98 illustrate the various aspects
of imperative formation.

97 a. Nyingki kurtama kun ngukun. (statement) 'you drank water'

1 drink 2/AC 1 2

b. Kurtama nguka! 'drink water!'

drink 2

c. Tiin-kiya, kurtamad ngukun! 'come here ('here-come') and drink water!'

here/go drink/IM 2/AC

98 a. Nyingki kudi kun ngithaan. (statement) (you saw/looked at me')

1 see 2/AC 1 2

b. Kudi ngithaan! 'look at me!'

2/AC

c. Tiin-kiya kudid ngithaan! 'come here and look at me!'

see/IM 2/AC

The Imperative formative is deleted in the simple imperatives 97b, 98b,
as well as in the first conjunct of each of 97c, 98c. The Accusative on the
direct objects 97 b,c must be deleted as a part of Imperative formation,
but this does not happen in 98 b,c where the direct object is first person.

The contrast with the derivations for the statements 97a, 98a, is of interest in that Non-Future Tense Deletion permits the Accusative case to appear in surface structure, while Imperative Formation deletes that category.

23.4.4.4 Overlays

It has already been observed that the overlays topic, Q', Relativized Nominal, and Dislocatee are assigned the Nominative.

One further aspect of case assignment related to overlays is important.

23.4.4.4.1 Topicalized sentences

When there is a Topic in a clause, that is not itself the (classic) subject, then that subject receives the Genitive case:

99. Tiin wangal ngithun kuparithad kun ngithunad thapujingad.

TP/2 1/GN make/NF my/NF 3/NF

'This boomerang (is the one) I made for my brother'

TP/2 1 2

This fact does not follow from any other aspect of the analysis.

23.5 Footnotes

1. A portion of this chapter (basically sections 23.2-23.3) was presented at the A.I.A.S. Biennial Conference, 1974, and is due to be published in the proceedings. Where the two versions differ, the present one is to be taken as the corrected presentation.
2. However, Kenneth Hale has pointed out to me that forms like kangkurngad 'speech/PRP/NF' are attested.

3. However, the inherently locative directional determiners take the affix -(i)n, presumably the Accusative, in the negative.

(i) Waangine pajin!

go/NG west/AC

'don't go west!'

(ii) Waa pata!

go west

'go west!'

4. In other Australian languages that have the Passive, the chomeur takes the Instrumental case.
5. A root sentence is defined by Emonds (1976:2) as 'an S that is not dominated by a node other than S'. His examples show that the notion of root S includes main clauses, tags, and, notably, adjoined clauses (e.g. conditionals).
6. This was first pointed out by Kenneth Hale in an unpublished paper.
7. This is not to deny that, in some particular language, there may not be something significant about the case taken by the nominal put in chomage by the Passive. In fact, I later suggest that the Accusative of the initial subject that is placed en chomage by the Passive is due to a subsequent rule of Chomeur to Indirect Object Advancement. On the other hand, I see no particular explanation for the Genitive case otherwise assigned to this chomeur, and I don't believe that any is called for.

CHAPTER TWENTY-FOUR

ADJOINED CLAUSES

24.1 Preliminaries

24.2 Underlying structure

24.3 Tense in simple sentences

24.4 Tense in dependent clauses

24.5 Topics

24.6 Concord

24.7 Footnotes

The main objective of this chapter is to shed some light on the nature of the restrictive relative clause in Lardil. This study requires an examination of a great many areas in syntax: dependent clauses in general; tense and time; coreference; topic and focus; and so on. Some of these areas, such as tense, have been examined only very briefly in Relational Grammar. Moreover, the pioneering studies of relative clauses in Australian Aboriginal studies, mostly by Kenneth Hale, have been carried out within a transformational framework.

Therefore, I have left this present chapter basically unmodified from the earlier version, which means that little influence of Relational Grammar is manifested. Nevertheless, the study should be of some value.

24.1 Preliminaries

At the outset, then, some clarifications and definitions are in order. By and large, I follow the terminology established by Kenneth Hale (forthcoming, and elsewhere).

By relative clause (S_R), I mean a subordinate clause construction which (i) can serve to identify more precisely a superordinate nominal (the antecedent, N_A), and (ii) contains - abstractly if not overtly - some nominal coreferential with the antecedent. I refer to this noun phrase contained in the relative clause as the relativized nominal, RL . Some examples will illustrate this terminology. The sentences 1a,b are paraphrases. (For clarity, I enclose the relative clause in square

brackets in these and many other examples.)

1. a I'm living in the house [which my brother built].

1 N_A RL/2 1

- b Ngata kunaa kun nganikinngge tawunngge [ngithun thapujikan

1 live N_A /LC my 1/GN

kuparithad tawun].

make/NF RL/2

It follows from the above definition of a relative clause that the proposition of that clause can be presupposed (namely when it has an identificational function), but this is not an essential feature of all occurrences of the relative clause structure. For example, the relative clause in 2 has one reading in which it is neither identificational nor presupposed.

2. I stepped on a snake that bit me.

In Australian languages, it is typical to find in addition to the identificational use of a relative clause (following Hale's terminology, the N-relative interpretation), a use in which the relative clause provides some kind of information about the temporal, logical, or situational orientation of the main clause proposition (the T-relative interpretation). The Lardil sentence 3 illustrates these possibilities.

3. Ngata wirimathur kiinkur mangkurtangkar, [terltenkur

1 carry/F that/F N_A/2/F broken/PRP

mangudur kunaathad].

rib/PRP be/NF

'I'll carry the child [who has a broken rib].' (N-relative)

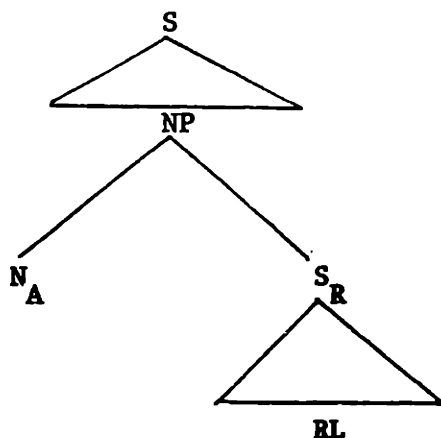
'I'll carry the child [because he has a broken rib].'

(T-relative)

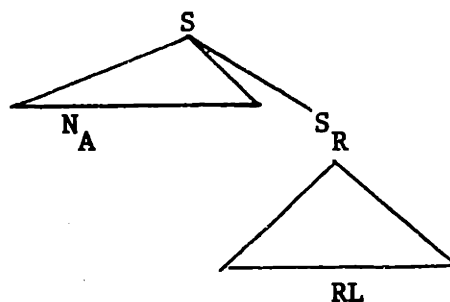
Crucially, the definition of relative clause above is neutral with respect to the structural configuration of antecedent and relative clause, as well as the syntactic derivation of the relative clause. For immediate purposes, it is irrelevant what the most abstract representation is: it merely has to be accepted that English has both the embedded

structure (4), i.e. in which the relative clause is attached to the antecedent, and the adjoined structure (5), in which the relative clause is postposed to the superordinate clause.

4.



5.



Structures 4 and 5 are illustrated by sentences 6a,b, respectively.

6. a A woman who was crying came in.

b A woman came in who was crying.

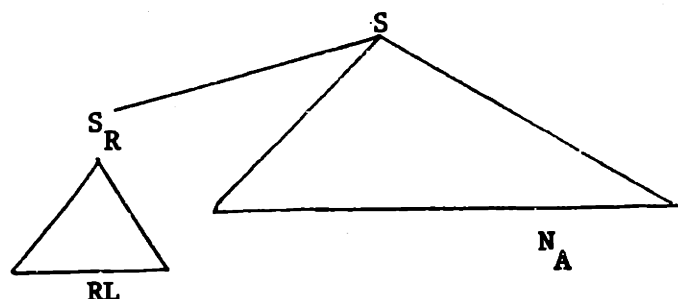
Several grammars of Australian languages, e.g. Hale (1967) for Walbiri, Dixon (1969,1972) for Dyirbal and Gumbainngar, Keen (1972) for Yukulta, have proposed or assumed an underlying embedded source (4) for NP-Relatives in these languages. But Hale (1970,1971,forthcoming, cf. also Klokeid 1970 and Andrews 197) has argued for an underlying adjoined source, as in 5 for at least some Australian languages. Call these analyses the Embedded Hypothesis and the Adjoined Hypothesis, respectively.

The Embedded Hypothesis has been often (though perhaps not always) adopted for Australian languages on the assumption that the embedded structure is the universal one, and no explicit arguments for it have been advanced. The proponents of the Adjoined Hypothesis, on the other hand, have found evidence to support their analysis.

I claim that Lardil lacks the embedded relative clause, having only adjoined structures like 5. However, the relative clause may be either postposed as in 5 -cf. 1b - or it may be preposed as in ?, of which 8 is an example. (Parallel to the structures in 5 are the logical

possibilities of embedded relatives postposed to the antecedent as in 6a, or preposed to it - this latter is not possible in English, although it is well-attested in such languages as Japanese. The difference between preposed and postposed relatives is not immediately relevant.

7.



8. [Kiin mangarta terltentkur mangudur kunaathad], ngata wirimathur.
 RL/1 be/NF 1 carry/F

24.1.1

Given that certain embedded and/or adjoined structures are generated for any given language, there must also be recognized a process of relative clause formation: in English, the obligatory deletion of the relativized nominal and the substitution of a clause-initial relative pronoun.

The formation of a relative clause in Lardil fairly obviously involves several stages. If we examine any of the sentences above, say 1, we can see that the relative clause undergoes a rule just like topicalization of the Relativized nominal. The evidence for this is that the subject is in the genitive, and the relativized nominal is in the nominative. Moreover, the relative clause cannot undergo Non-Future Tense Deletion, again a property of topicalized sentences. The major respect in which the relative clause of 1 differs from the corresponding normal topicalized sentence is in word order. Thus, while a Topic normally begins its clause, followed by the subject and then the verb, as in 9 below, the corresponding relativized nominal ends the clause, as in 1. But this is just the position that a Topic would appear in due to Detopicalization, as in the sentence 10. Thus, if our objective is to describe the syntax of relative clauses in terms of operations on phrase markers and using the fewest rules possible, we can derive the postposed

relative clause in 1 with just these two independently needed rules.

9. Tiin tawun ngithun thapujikan kuparithad kun.

this TP/2 my 1/GN make/NF

'This house (is the one) my brother built.'

TP/2 1

1. ..., ngithun thapujikan kuparithad tawun.

RL/2

... house which my brother built.'

RL/2

10. Ngithun thapujikan kuparithad kun tawun. (=9)

TP/2

Further examination reveals that another rule is obligatorily involved in relative clause formation, namely Pronominalization. One of three ways in which nouns may be pronominalized is by destressing, and the relativized nominal in a sentence like 1 is relatively stressless. Another means of pronominalization is by deletion, and this is also possible as an alternative. For example, 11 is an alternative version of 1.

11. Ngata kunaa kun nganikinngge tawunngge, ngithunin thapujikan kuparithad. (=1)

In summary, relative clauses can be considered as obligatorily undergoing three independently needed rules: Topicalization, Detopicalization, and Pronominalization.

One major exception should be noted, however. If the relativized nominal is not a term, then the relative enclitic ngadi is inserted in second position, and Topicalization does not apply, as in 12. This particular construction is important in one respect: it strengthens the claim that Topicalization is involved in the derivation of relative clauses like that of 1, because it is precisely where the insertion of ngadi is obligatory that topicalization is in general inapplicable, i.e. with non-terms.

12. Karaan ngani nyedwe, ngata ngadi ratha kun karnjinin
 where that N_A/1 I RL spear 2/AC
 tilanthad?
 once

'Where (is) that place, where I once speared a wallaby?'

N_A/1 1 2

One further, optional rule is applicable to adjoined clauses. If the relativized nominal has not been deleted by pronominalization, and if the antecedent is itself a primary term, then RL may be deleted and the remainder of S_R will agree in case with the antecedent (i.e. either nominative or accusative). This deletion rule cannot apply to 1, because the antecedent is an impure term (specifically, a locative). In sentence 13a, however, the antecedent is a direct object and so this deletion plus agreement can take place, as in 13b. (It is irrelevant that the Accusative of the antecedent has been replaced by tense; it is still the direct object.)

13. a Ngata kudithur wangalkur, ngimpen padkithad kun wangal.
 1 see/F N_A/2/F 1/GN chop/INF RL/2
 'I want to see the boomerang which you made ('chopped').'
 1 NP/2 RL/2 1

- b Ngata kudithur wangalkur, ngimpenin padkithadpanu. (=a)
 1/GN/AC chop/NF/AC/EV

This latter rule, which deletes a Topic functioning as Relativized nominals and causes the clause to agree with the antecedent, is only applicable to adjoined relative clauses (including however those with T-relative interpretation). For this reason, I'll refer to this rule as Relativized N(ominal) Deletion.

All told, then, it could be argued that there are five rules involved in relative clause formation in Lardil:

- i. Detopicalization
- ii. Topicalization or
- iii. ngadi Insertion
- iv. Pronominalization
- v. (optional) Relativized N Deletion

(I see no reason to attempt to collapse Equi with Relativized N Deletion. Both are similar in (a) being optional, (b) requiring a term as trigger, (c) causing subordinate clause agreement with the trigger. However, there are crucial differences: (a) Equi deletes a subordinate subject, Relativized N Deletion any (Topic) term; (b) the latter rule freely permits any term as trigger (antecedent), but for Equi the choice is restricted to one of the nuclear terms, subject or object, depending on the superordinate verb involved.

24.1.2

This pattern conforms in certain interesting respects to the situation found with adjoined relatives in other Australian languages. Thus, Hale's (forthcoming) investigation of Walbiri and Kaititj relative clauses, and the studies of Mabuyag carried out by Ephraim Bani and myself (Rlokeid 1970) have revealed that pronominalization plays a role in relative clause formation. This is certainly unlike English embedded relative clauses, where it is irrelevant whether RL can undergo pronominalization. Thus, the nominal tabs can undergo relativization but not pronominalization (14). Also, even when some relative pronoun has available a potential coreferent (e.g. who in 15 has available a man ... and a boy) but that fact is irrelevant: the relativized nominal must have as anaphor only the sister node N_A .

14. a The tabs that the boss kept on Mary bothered her.
- b *The boss used to keep tabs on Mary and he's going to keep them on her again.

15. a *A man_i sat down and a boy_j who_{i,j} were similar entered the room.
 b A man_i sat down and a boy_j entered the room, when I noticed that they_{i,j} were similar.

From these observations, I conclude that a general constraint is necessary for Lardil:

16. Antecedent Principle

Relative clause formation is permitted only under the following circumstances:

- i. In an embedded structure, the relativized nominal must be identical to N_A, sister to S_R.
- ii. In an adjoined structure, the relativized nominal must undergo Pronominalization, i.e. the antecedent need only be an antecedent for Pronominalization in order to permit relative clause formation.

The proposed constraint (16) makes several predictions about the syntax of relative clauses. I will show that these are borne out.

Firstly, two nominals can be coreferential without being identical:

pronominalization and hence relative clause formation should be possible in such circumstances in Lardil and Walbiri. This is indeed true as the Lardi' sentence 17 and the Walbiri sentence 18 (from Hale, forthcoming) show.

17. Pinyamari nganikin jikin thungalin, rurukakan jithur werne.
 smell/put that/AC many/AC N_A/2/AC 1/GN ear/F RL/2
 '(They) put smell on those many things which the initiate will

RL/2 1

ear.' (thungal 'thing', werne 'food')

N_A/2

18. Walbiri

Warlpangku kangalpa judu waalwaarirluwarni, kuja-ka payi
 N_A/1/ERG AUX 2 toss/NonPast RL/AUX RL
 wangka.

speak

'The wind tosses (our) hair when it blows (lit. 'speaks').'

N_A/1 2 RL

(warlpa 'wind'; payi 'wind') (from Hale, forthcoming)

A further prediction is also made by restricting relative clause formation in adjoined clause to pronominalizable cases. Recall that not only postposed but also preposed relative clauses are possible in Lardil. In such constructions, it should be possible to delete N_A, since pronominalization can go forwards when the subordinate clause precedes. This prediction is fully correct. In 19, there is a preposed adjoined relative, and N_A in the main clause is deleted.

19. [Ngithun kungungan kuparithad wanggal tiinadwadkungad] yuudterlte.
 my brother/GN make/NF N_A yesterday/NF break
 'The boomerang that my brother made yesterday has broken.'

The study of adjoined structures in this chapter is organized along the following lines. In section 24.2, the underlying and surface structures are examined more closely. The next three sections deal with two other aspects of relative clause formation.

Firstly, there are no relative pronouns in NP-Relatives, nor in general complementizers at all in NP- and T-Relatives (apart from the highly restricted relative enclitic ngadi), so it must be ascertained how the correct meaning of a given clause is assigned. I conclude that the tense system of Lardil does the work of complementizers (section 24.3.4) and the topicalizing mechanisms signal the relativized NP (section 24.5). Section 24.6 deals very briefly with the complex question of Concord.

24.2 Underlying structure

24.2.1 Surface structure

Relative clauses in Lardil are normally in the postposed adjoined position, as already illustrated in 1b, 3, 11, 12, 13, and 17, or else in preposed adjoined position, as in 19 (cf. examples in 20a, b, respectively). It is only rarely, and usually in sentences of marginal grammaticality, that a relative clause appears in surface structure attached to the

antecedent.

20. a Ngata janijanithur karnjinkur, [ngimpen rathad kun].

1 seek/F $N_A/2/F$ 1/GN spear/NF

'I'll look for the wallaby that you speared.'

b [Kiin wutal ngimpen wanjiipenngethad kun], pukaa.

$N_A/2$ 1/GN bring ashore/NF rotten

'That meat which you brought ashore is rotten.'

$N_A/2$ 1

It must be granted that either analysis will generate the sentences above. Under the Adjoined Hypothesis, the relative clause originates in postposed adjoined position, so only a preposing rule is needed to derive the two structures above, ignoring for a moment the rules affecting antecedent and relativized nominals. Under the Embedded Hypothesis, on the other hand, not only the preposing rule, but also a postposing rule will be needed, the latter to derive the postposed adjoined clause. The thing I find unsatisfactory about this latter solution is that surface embedded relative clauses are really very rare and marginal in grammaticality, as for example 21 below.

21. Ngata janijani kun [ngithunin rathadpa] kanjinin.

I seek 1/GN/AC spear/NF/AC $N_A/2/AC$

'I looked for the wallaby I speared.'

1 $N_A/2$ 1

Of course, it is still possible to account for this under the Embedded Hypothesis, by making the extraction rules essentially obligatory. Then Both Lardil and English would have the same underlying structures and the same rule of extraposition. But this really fails to account for the differences between the two languages. It is really the opposite in the two languages with respect to acceptability of the structures involved: the normal surface position in English is embedded in the antecedent (22); extraposed relatives are rarer and of marginal grammaticality (23) (although not where there is a split antecedent, of course).

22. A man who was carrying a large package entered the gym.
The ~~men~~ who delivered your stove left in a great hurry.

23. A man entered the gym who was carrying a large package.
The ~~men~~ left in a great hurry, who delivered your stove.

It has been pointed out by Hale (1971) that the infrequency and marginality of embedded restrictive relatives in languages such as Lardil is paralleled in English by the status of attracted conditional and temporal clauses:

24. a John will get a big surprise if he comes tomorrow.
John if he ~~comes~~ tomorrow will get a big surprise. (Hale 1971:14)

b The ~~milkman~~ makes a lot of noise when he drives away.
The ~~milkman~~ when he drives away makes a lot of noise.

Conditional and temporal clauses in English attract only to a nominal which is coreferential with some nominal in the superordinate clause (cf. 25a): thus the condition on coreferentiality is shared not only by Lardil, and English relative clauses, but also by English attracted clauses. (It has been pointed out to me by Haj Ross that the condition must actually be stronger than mere coreference - evidently the coreferential nominal in the attracted clause cannot be within a subordinate clause, cf. 25b.)

25. a John will get a big surprise tomorrow if the meeting is cancelled.
*John if the ~~meeting~~ is cancelled will get a big surprise tomorrow.

b John when his sister is sick sulks.
*John when the ~~guys~~ who his sister likes race is happy.

The temporal and conditional clauses of English may be at the end of a sentence, or they may be preposed; this is true also of Lardil relative clauses.

Thus the syntax of Lardil relative clauses shows greater similarities in significant respects to the syntax of English conditionals and temporals rather than English relative clauses.

This fact is accounted for under the Adjoined Hypothesis for Lardil. The structure of Lardil relative clauses under this hypothesis is essentially the same as that of English (and Lardil) conditionals and temporals. There is an optional and rare attraction rule which creates marginal sentences in both languages (21,24).

From sentence 26 below, we can see that the attracted relative clause (which includes RL) replaces N_A .

26. Ngata waangkur [Thuwathuwakan kineethad nyedwe].

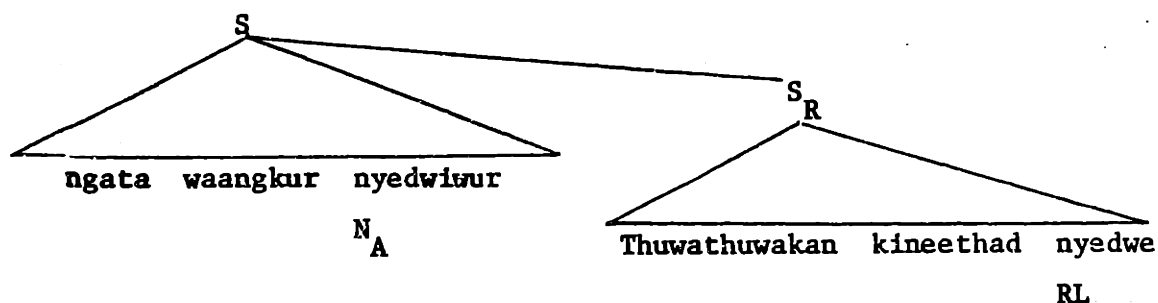
1 go/F 1/GN die/NF place

'I'm going to the place where Thuwathuwa died.'

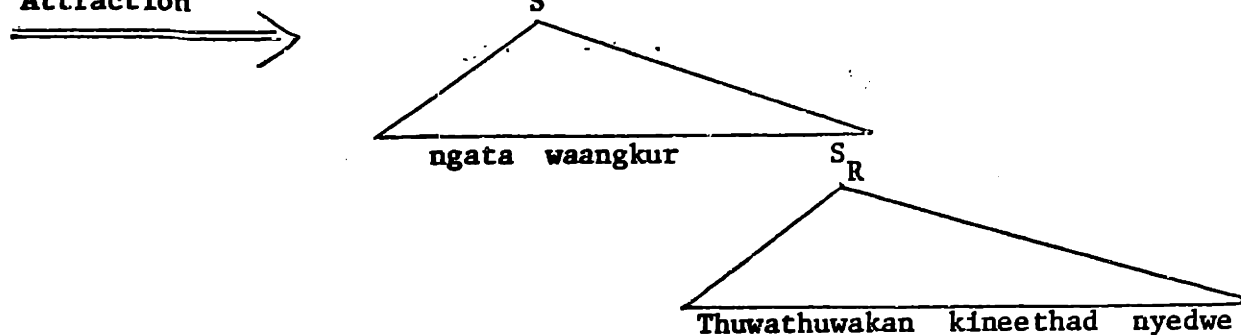
1

The antecedent of nyerwe 'place' should have the form nyerwiwur (place/F) but no such nominal is evident in the sentence. This means that the Attraction rule has the effect shown in the derivation 27. More examples of such clauses are needed, so they can be studied more fully. (Hale, forthcoming, has proposed essentially the same rule for Kaititj).

27.



Attraction



24.2.2 kiin-replacement

It is possible to argue that the underlying position of an adjoined clause is in final position.

When a relative clause is preposed, the main clause contains the demonstrative pronoun kiin 'that', normally in a reduced form [ki] or [i], which is in general possible with this demonstrative pronoun:

28. Ngani ngawa ngithun rathad, kiin penymed ngithanthar.

that RL/2 1/GN V/NF 1 bite/ADM 2/ADM

'That dog I speared, that is liable to bite me.'

2 1 1 2

Following a suggestion made by Hale (in press) for Walbiri, we can speculate along the following lines. When a relative clause is identificational, i.e. presupposed, it is always generated in final position. There exists the option of fronting such a clause, substituting for it in the main clause the demonstrative kiin.

One unexplained fact is that this demonstrative always turns up at the beginning of the main clause, not at the end, where the relative clause supposedly originated.

24.2.3 Case agreement

A relative clause agrees in case with the antecedent, N_A , just if the relativized nominal is deleted by Relativized N Deletion. Contrast the pair of sentences 29a,b. This deletion hasn't applied to RL, ngawa 'dog' in 29a, and there is no agreement, but in 29b both the deletion and agreement appear. (The two sentences are paraphrases.)

29. a Ngata rathur kiinkur ngawur, [ngithunar pethad kun ngawa].

1 spear/F that/F $N_A/2/F$ 2/NF bite/NF RL/]

b Ngata rathur kiinkur ngawur, [ngithunadpa pethadpanu].

1 $N_A/2/F$ 2/NF/AC bite/NF/AC/EV

'I'm going to spear the dog which bit me.'

1 $N_A/2$ RL/1 2

If we adopted the Embedded Hypothesis, then this case agreement could be held to be just a special case of Concord within a NP. (This assumes that NP is a constituent consisting of a governing nominal and its dependents.) But there are several inadequacies with this solution. Firstly, Concord always applies within a given NP (provided of course there are categories to distribute - an uninflected nominal gives no evidence of Concord), but agreement in a relative clause is contingent on Relativized N Deletion. Secondly, Concord distributes all the tense and case categories that are assigned to the nominal in final structure. But agreement in a relative clause is quite different, because only a single case category is introduced, and it is the one reflecting the cycle-final grammatical relation of the controller of Relativized N Deletion. An example will make this difference clear. The direct object NP in 29, kiinkur ngawur (that/F dog/F) has the surface morphological structure kiin/AC/F ngawa/AC/F; through the morphological spell-out rules, only the Future has overt representation. But the relative clause in 29b does not have the Future tense introduced into it, only the case of Accusative: ngithunadpa pethadpanu (me/NF/AC bite/NF/AC/EV). Therefore, the rule of Concord, in this approach, would have to distinguish relative clauses with a special type of Concord which only copies case not tense. In effect, then, the attempt to collapse agreement in a relative clause with the Concord rule has ended up distinguishing the two. Under the Adjoined Hypothesis, in contrast, there is a prediction that the ordinary rule of Concord will never apply to a relative clause together with the antecedent, because these two never form a constituent. This is a correct prediction.

A further set of observations seems to lend additional support to the Adjoined Hypothesis. The adjoined structure is identical to the structure of various other clause types including rational clauses and purpose clauses. Unlike restrictive relative clauses, these two clause types do not require that there be some internal nominal (RL) coreferential with a main clause nominal (N_A), as the examples of 30-31 confirm.

30. a Ngithun thapu tiinkiyathur, tulnhu pirathad kun.

my 1 here/come/F 1 arrive/NF

'My brother will come here, because the month fish have arrived.'

- b Ngata mirnti kun kiinin yarpujin, ngithunad ngawungad pethad
1 that/AC 2/AC my/NF 2/NF bite/NF
kun.

'I stepped on that snake, because (it) bit my dog.'

1 2 2

31. Ngata kupari kun maarnin, ngithun thapu rathur karajinkur.

1 make 2/AC 1 spear/F 2/F

'I made a spear, so my brother could spear a wallaby.'

1 2 1 2

But if there are such coreferential nominals, then the subordinate one can be deleted optionally and the clause will then agree in case with the superordinate controller of the deletion, as in 32-33.

32. a Ngata mara nethur niwenthur niya nethad kun ngimpenad.

1 hit/F 2/F 1 hit/NF 2/NF

'I should have hit him because he hit you.'

1 2 1 2

- b Ngata mara nethur niwenthur, nethadpanu ngimpenadpa. (=a)
hit/NF/AC/EV 2/NF/AC

33. a Ngata werethur tangkar, niya kuparithur wangalkur.

1 send/F 1 make/F 2/F

'I'll send the man, for him to make a boomerang.'

1 2 1 2

- b Ngata werethur tangkar, kuparithuru wangalkuru. (=a)
make/F/AC 2/F/AC

This similarity between restrictive relative clauses on the one hand and rational and purposive clauses on the other must be accounted for. In the Embedded Hypothesis, it is certainly possible to make such a statement, but it is ad hoc. The Adjoined Hypothesis in contrast accounts for these facts in a natural way. Since Relativized N Deletion applies in this approach to adjoined clauses in one use (i.e. the N-Relative or restrictive relative clause), it should apply to all uses of that clause type (i.e. also to T-Relatives, such as rational and purposive clauses). This prediction is obviously a correct one.

24.2.4 The relativized nominal

The relativized nominal in an embedded relative clause - as in English or Japanese - is removed (deleted) from its clause, being replaced in English by a fronted relative pronoun. But the facts are rather different in Lardil. The relativized nominal is only optionally deleted in this language (by Relativized N Deletion). Instead, it may be retained as in sentences 20b and 26a above. It can be seen that the undeleted RL begins a preposed relative clause (20b) and, usually, ends a postposed one (26a). But it is also possible for N_A to remain in non-final position, as in 34.

34. Ngata rathur kiinkur ngawur, ngithunad ngawa pethad kun.
 1 spear/F $N_A/2/F$ 2/NF RL/1 bite/NF
 'I'm going to spear the dog, which bit me.'
 1 $N_A/2$ RL/1 2

Assuming an embedded source in Lardil for relative clauses, we can posit relative clause formation rules which move and delete the relativized nominal: obviously, both aspects must be optional. This is statable within the Embedded Hypothesis, certainly, but we are left wondering why the movement and deletion are optional, or why they take place at all. In the Adjoined Hypothesis, all aspects of relative clause formation are accounted for by independently needed rules. Thus, the morphological form of the relative clause in 26a and its word order are determined by topicalization. It is possible for this rule to set up a focus: pre-supposition partition, which must hold between RL and the rest of S_R .

Its effect on word order is obscured in sentences like 29a and 34 by the operation of Repeated N Shift.

24.2.5 Range of meaning

The various clause types that I claim to be adjoined include N-relatives 20,21,29,34 and T-relatives: these latter are rational clauses 30,32, purpose clauses 31,33 and as well conditional clauses 35 and tensed temporal clauses 36. The adjoined clauses below are bracketed for purposes of identification.

35. a [Nyingki putithad], ngithun thapu yalalithur.
 1 fall/NF my 1 laugh/F
 'If you fall down, my brother will laugh.'
 1 1
- b [Nyingki wungithad ngithunad wangalkad], ngata nethur
 1 steal/NF my/NF 2/NF 1 hit/F
 ngimpenthar.
 2/F
 'If you steal my boomerang, I'll hit you.'
 1 2 1 2
- c [Nyingki mara peyithad yarpudkan], nyingki mara kineethur.
 1 bite/R/NF C/GN 1 die/F
 'If you'd been bitten by a snake, you would have died.'
 1 C 1
- d [Ngata mara nethur niwenthar], niya ngimpenthad nethad.
 1 hit/F 1 2/NF hit/NF
 'If I had hit him, he would have hit you.'
 1 2 1 2
36. a [Tulnhu panta pirathad], ngithun thapu thaathur.
 1 some- arrive/NF 1 return/F
 time
 'When the month-fish have arrived [at some future time], my
 1
 brother will return.'
 1

b Ngata wurtaljinee kun, [ngantangad waangad].

1 tired far/NF go/NF

'I was tired, when (I) went a long way.'

c Ngata mara nethur niwenthar [niya nethad kun ngimpenad].

1 hit/F 2/F 1 hit/NF 2/NF

'I should have hit him, when he hit you.'

1 2 1 2

There is no special morphology to distinguish the several types of adjoined clauses. It is evident that the different readings associated with the various sets of sentences above derive from such factors as tense (future versus non-future), as I show below in some detail. Nevertheless, it is very clear that we are dealing with a very generalized clause type, which simply expresses some logical connection between the proposition of the subordinate (adjoined) clause and that of the main clause, the specifics of the connection determined by many factors. In that case, the different groups above -- restrictive relative, rational, purposive, conditional, and temporal -- merely represent instances of clearly distinct connections, whether logically or in the English gloss, and we can expect to find examples of adjoined clauses that don't fall clearly into any one of these groups. Just such sentences do exist, e.g. 37.

37. Ngata kuparithur maarnkur, [ngithun thapu rathur karnjinkur].

1 make/F 2/F my 1 spear/F 2/F

'I'll make a spear, so that my brother can spear a wallaby.'

1 2 1 2

'I'll make a spear and then my brother will spear a wallaby.'

The logical connection in 37 seems to amount to no more than the temporal sequencing signified by conjunction with and in English.

24.2.6 Restrictions on recursion

One argument advanced by Hale (forthcoming) for the Adjoined Hypothesis relates to recursive possibilities. In a language like English that has embedded relative clauses, it is possible to embed such a clause in any given NP. So a sentence like 38a below is perfectly natural and

fully grammatical. Moreover, a given sentence of English can contain both a restrictive relative (N-relative) and a clause corresponding to a Lardil T-relative (38b).

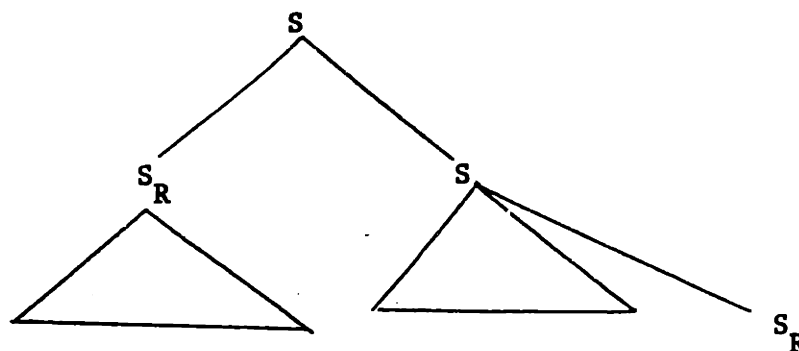
38. a The man who gave me this spear killed the wallaby you saw.

b I stepped on the snake you saw, because it hit my dog.

Yet the corresponding constructions in a language like Lardil are ungrammatical. This is accounted for in the Adjoined Hypothesis by restricting the number of adjoined clauses to exactly one per sentence. This restriction is thus expressible in a direct and natural fashion in this analysis.

However, there is the possibility of adjoining two clauses as in 39a; such a sentence is 39b.

39. a



b [Nyingki nethad ngithunad ngawungad], ngata terltethur
 1 kill/NF my/NF 2/NF 1 break/F

wangalkur [ngimpenin kuparithadpanu].

N_A/2/F 1/AC make/NF/AC/EV

'If you kill my dog, I'll break the boomerang you made.'

1 2 1 N_A/2 1

It is important to realize that there is no general restriction in Lardil that there be no more than one subordinate clause per sentence. For example, sentence 40 below contains both a conditional clause (in the non-future tense) and an infinitive clause; the latter is embedded in the former.

40. Nyingki kudithad niwenad, nejid pulakar, nyingki kalkathur.
 1 see/NF 2/NF kill/NF 2/NF 1 sick/F
 'If you see him, kill the bullock, you'll get sick.'
 1 2 2 1

24.2.7 The problem of adjoined clauses

The variability in the logical connection between the main clause and the adjoined clause already referred to is typical in Australian languages (Hale, forthcoming) and in fact was pointed out some time ago by W.E. Smythe, a physician and amateur linguist, in his grammar of Gumbainngar:

The construction which has been termed the relative clause is a most interesting one, and has a wide scope, it being equivalent to the English relative, conditional, and adverbial clauses. (Smythe 1948/9:78)

Similar observations may also be found in Dixon (1972:Appendix A) for Dyirbal; in Breen (1973:41) for Bidyara and Gungabula; and in Keen (1972:267ff) for Yukulta.

This situation is a consequence of the Adjoined Hypothesis as elaborated in this study, but on the other hand does not follow from the Embedded Hypothesis at all.

One could be tempted to take the position that all the sentences discussed so far are not examples of the subordinate clause type, Adjoined Clause, but rather are nothing more than conjoined clauses or perhaps appositives, and hence the logical connection between the clauses is loose and seemingly unsystematic. In this view, there is really no syntax or semantics to study in these constructions. Smythe in fact seems to have taken this position, for after briefly reviewing the range of meaning of adjoined clause in Gumbainngar, he concluded:

The ambiguity which must necessarily arise from such a form of expression is not of very great importance in an entirely colloquial language ... Further, in the more or less circumscribed life of this tribe, ... the person addressed would, no doubt, have sufficient knowledge to

enable him to grasp which meaning was intended. (1948/9:79-80)

While it is certainly true that context would play some role in the interpretation of a given adjoined clause, I take the position that there are strictly linguistic generalizations that can be made about this construction, and this chapter is devoted to such observation.

24.3 Tense in simple sentences

By tense inflections, I mean those categories which fix the instantiation of a proposition in time. The tense inflections in Lardil are the Future, 41a, and the Non-Future, 41b. There is also an uninflected form, which results from Non-Future Tense Deletion, 41c, and an Infinitive, 41d.

41. a Ngata waangkur kirtikirtiuru.

1 go/F moonlight/PRP/F

'I'll go in the moonlight.'

b Kiin mangarta tiwadkungad putithad.

that see/F TIME/NF fall/NF

'That child (is the one that) fell yesterday.'

1

TIME

c Kiin mangarta tiwadku puti.

1

fall

'That child fell yesterday.'

d Ngata kudithur tangkar, yakur pulejid kun.

1 see/F 2/F 2/INF catch/INF

'I want to watch the men, catching fish.'

1

2

2

I describe in this section the tense system for simple sentences.

The statements here apply only to simple sentences and the main clauses of complex sentences. With this as background, I turn to the tense system in other clauses in 24.4.

There are three basic tense forms of the verb that can be distinguished in simple sentences: the future (F), the non-future (NF), and the uninflected form of the verb.

Consider the following sentences:

42. a Ngata rathur karnjinkur pilaankur.
 1 spear 2/F TIME/F
 'I'll spear a wallaby tomorrow.'
 1 2 TIME
- b Ngithun kantha wiithur wangalkur pilaankur.
 my 1 trim/F 2/F
 'My father will trim a boomerang tomorrow.'
 1 2
43. a Ngata rathad karnjinad tiwadkungad.
 1 spear/NF 2/NF TIME/NF
 'I speared a wallaby yesterday.'
 1 2
- b Ngithun kantha wiithad wangalkad tiwadkungad.
 1 trim/NF 2/NF
 'My father trimmed a boomerang yesterday.'
 1 2

Time is expressed in two different ways in these sentences: firstly, there are the time adverbs tiwadku 'yesterday' and pilaan 'tomorrow.' Contrast 44a,b below, in which different time adverbs appear. Time adverbs are optional; in 44c, none appears.

44. a Ngata rathur karnjinkur kirtikirtiuru.
 1 V/F 2/F
 'I'll spear a wallaby in the moonlight.'
 1 V 2
- b Ngata rathad karnjinad tilanthaad.
 1 V/NF 2/NF
 'I speared a wallaby a long time ago.'
- c Ngata rathur karnjinkur.
 1 V/F 2/F
 'I'll spear a wallaby.'

Sentences 42-43 also contrast in the tense inflectional categories present in the predicate. Sentences 42 contain the future -ur, -kur, and 43 the non-future inflection -ad. Sentences 43 illustrate the Non-Future tense: sentences with this tense deleted are 45a,b. I'll often refer to this type as the uninflected tense.

45. a Ngata ratha karnjinin tiwadku.

1 spear 2/AC

'I speared a wallaby yesterday.'

b Ngata niween kudi tilaa.

1 2/AC see

'I saw him already.'

1 2

When a sentence is in the uninflected tense, a time adverb is commonly procliticized to the verb: thus 46a is equivalent to, and preferred over, 45a:

46. a Ngata tiwadku ratha karnjinin.

1 spear 2/AC

b Ngata niween tilaa kudi.

1 2/AC see

The time adverbs may also be procliticized to the verb in the overt tenses, thus 47a,b, are optional variants of 42a and 43a, respectively. When in proclitic position, the time adverb does not display concord in tense. However, reordering of constituents may serve to bring an inflected time adverb into a position before the verb, as in 48. This inflected time adverb does not procliticize to the verb.

47. a Ngata pilaa rathur karnjinkur.

1 spear/F 2/F

b Ngata tiwadku rathad karnjinad.

1 spear/NF 2/NF

48. Ngata pilaankur rathur karnjinkur.

1 spear/F 2/F

24.3.1 Time adverbs

It has already been observed that time adverbs may appear in sentence-final position, or procliticized to the verb. When not procliticized, a time adverb may be moved around by stylistic reordering. In all the word order possibilities, the non-procliticized time adverbs display the properties of constituents of the predicate, e.g. they undergo tense concord. A time adverb that has undergone tense concord may be reordered before the verb. Compare 49a and the reordered counterpart 49b, with sentence 49c in which the time adverb is procliticized to the verb.

49. a Ngata kudithur ngimpenthar pilaankur.

1 see/F 2/F

'I'll see you tomorrow.'

1 2

b Ngata pilaankur kudithur ngimpenthar. (=a)

1 see/F 2/F

c Ngata pilaa kudithur ngimpenthar. (=a)

1 see/F 2/F

For the class of time adverbs to which tiwadku and pilaan- belong, either the "free" or the procliticized position is available. However, there do exist some time adverbs which almost always procliticize to the verb, e.g. yuud 'perfective'. A sentence like 50a in which yuud is procliticized is very common, but a sentence like 50b in which it is free are very rare.

50. a Ngata yuud netha karnjinin.

1 hit 2/AC

'I hit the wallaby.'

1 2

b Ngaju thungal nyingki padki kun yuud?

what 2 1 chop

'What [thing] did you chop?'

2 1

The perfective proclitic yuud may indicate one of two situations: the action described by the clause may be completed at the time of speaking, 51a, or alternatively the initiation of that action may be completed, 51b.

51. a Ngata yuud ngawa yuda.

1 hot C

'I have gotten hot in the body', 'I am hot.'

1 C

b Tangka yuud nenji.

1 hit/RECIP

'The men have started to hit each other, to fight.'

There are fairly severe selection restrictions on many time adverbs, of both the free and procliticized types. The time adverbs are partitioned into three sets: those that occur freely with any tense; those that occur only in predicates in the future tense; and those that occur only in predicates in the non-future and uninflected tenses.

There is also the Eventive enclitic kun which doesn't appear in either free or proclitic position, but which exhibits the same type of selection restrictions as some other time adverbs. Thus, kun only appears in Non-Future sentences. It does not usually co-occur with any other time adverb in the same clause but it can. Also, the phonological evidence is that the Eventive morpheme has a different status (i.e. as an enclitic) from suffixes such as the tense inflections. Moreover, while the tense suffixes Future, Non-Future distribute, the morpheme kun does not. In this respect, too, then, kun is like the time proclitics, which do not distribute.

In summary, the morpheme kun shares many properties with the time adverbs, and is different from the tense suffixes in many respects. Therefore I conclude that kun is a time adverb, differing from the others only in that it is encliticized to the verb, not procliticized.

Unlike the proclitics, the enclitic kun cannot occur freely.

24.3.2 Tense and time

Let us distinguish between time -- a semantic representation relating to the real world -- and tense -- the system of inflectional categories obligatorily shown in the predicate and which are related to the real world only via the semantic interpretation. Like McCawley (1969:110), I distinguish between absolute and relative tenses.

24.3.3 Absolute tense

Consider the following sentences:

52. a Ngata kudithur ngimpenthar.

1 see/F 2/F

'I want to see you.', 'I'll see you.'

1 2

b Ngata wuthur ngimpenthar jangkur thungalur.

1 give/F 3/F 2/F

'I'll give you something.', 'I want to give you something.'

1 3 2

The tense of this sentence, the future, is interpreted as relating the instantiation of the proposition of the sentence to the time of speaking: namely, the future tense here indicates that the time of instantiation follows the time of speaking. I refer to a tense that is directly relatable to the time of speaking as an absolute tense. The future absolute tense relates the future instantiation of the proposition to the speaker in one of two ways: in all sentences, it may be a prediction of that instantiation by the speaker. It may also indicate desire on the part of the speaker for the instantiation of the event. The glosses for 52a reflect the two uses.

The following sentences further illustrate the two possible functions of the future absolute tense. The subjects of these sentences differ from 52a, but in the reading that shows a desire, the orientation remains that of the speaker.

53. a Nyingki kudithur tiinkur tangkar.

1 see/F 2/F

'You'll see this man.', 'I want you to see this man.'

1 2

b Niya kudithur ngimpenthar.

1 see/F 2/F

'He'll see you.', 'I want him to see you.'

1 2

The future tense inflection, then, marks instantiation subsequent to the time of speaking. The Non-Future and the uninflected tenses indicate instantiation which is prior to or coterminous with the time of speaking. One of these tenses, the Non-Future, is illustrated in 54 below.

54. a Tiinta niwen kudithad.

1 2/AC see/NF

'This man (is the one) he saw.'

2 1

b Kiin wangal teneethad kun tangamen.

1 leave/R/NF C/GN

'That boomerang was left by someone.'

1 C

The statement above about the time reference of the Non-Future inflected tense must be modified slightly. It is true that the Non-Future positions an instantiation at the time of speaking or prior to it, but in fact the time may range over these two: that is, the Non-Future is actually vague as to whether the event actually terminates before the time of speaking. The Non-Future is an absolute tense, in the sense of this term just introduced.

24.3.4 Relative tense

Now consider the uninflected tense. The time reference of the uninflected tense matches what we have seen for the Non-Future tense, i.e. both the Non-Future and uninflected tenses cover the time up to and

including the time of utterance.

For this reason, I have suggested that the uninflected tense is derived by an optional rule which deletes the Non-Future tense formative (cf. Chapter Twelve).

But the two forms, the overt Non-Future and the uninflected one, are not completely equivalent in use.

In simple sentences, there is an additional time reference involved in the uninflected one. The following sentences, 55, correspond to 54 above but contain the uninflected tense in place of the Non-Future. Sentences 55a,b are both inappropriate out of context.

55. a Niya kudi tiinin tangan.

1 V 2/AC

b Kiin wangal tenee tangan.

1 V/R C/AC

The additional factor that is involved becomes apparent when we consider a sequence of simple sentences connected in a discourse. The sequence of sentences below in 56a which are in the uninflected tense, is connected by a common topic and so forms a reasonable discourse. The sequence of sentences in 56b corresponds in every respect to 56a except that the verbs display the Non-Future tense.

56. a Nyadi ngithun thapu kudi karnjinin tiwadku. Ngata niween
we my brother see 2/AC 1 3/AC

maarnin wutha. Niya karnjinin ratha.

2/AC give 1 2/AC spear

'My brother and I saw a wallaby yesterday. I gave him a spear.

2

1 3 2

He speared the wallaby.'

1

2

b Nyadi ngithun thapu kudithad karnjinad tiwadkungad.

1 see/NF 2/NF

Ngata niwenthad maarnad wuthad. Niya karnjinad rathad.

1 3/NF 2/NF give/NF 1 2/NF spear/NF

Sequence 56a is the normal form of a narrative or discourse in general, while 56b seems disconnected. The reason is that the uninflected tense, in addition to having the Absolute time sense, must make reference relative to time marked elsewhere. (A tense with this property I call a Relative tense.) In the sequence 56a, the time is fixed initially by the time adverb tiwadku, in the first sentence. The uninflected tense in that same sentence must receive both an Absolute and a Relative time interpretation: the former is Non-Future and the latter is fixed as contemporary with the time of the adverb in the same sentence, since both are a part of the same proposition. In the second sentence, the Absolute time is of course Non-Future again. There is no time adverb in this sentence, and the Relative time reference is established relative to the preceding sentence of the discourse: namely, it is subsequent to the time of that sentence. Thus the instantiation of the second sentence in 56a is fixed as prior to or simultaneous with the time of speaking, on the one hand, and as subsequent to another even which has itself been fixed in the Absolute sense. The time interpretation of the third sentence in 56a is established in the same way.

In 56b, there is no Relative interpretation attached to the sentence, and so they refer to unconnected events: the net result being that 56b is not a well-formed discourse.

A relative time reference is added to the Non-Future tense when it is in a topicalized clause. So if each sentence in 56b is topicalized - as shown in 57 - then acceptability is increased:

57. a Tiin karnjin nyadwen ngithun thpaujikan kudithad tiwadkungad.
TP/2 1/GN
- b Tiin maarn ngithun wuthad niwenad.
TP/2 1/GN 3/NF
- c Tiin karnjin niwen rathad.
TP/2 1/GN

It is rare that the Non-Future tense is used in neutral statements like 56b: that is, 47b, 54, and others reflect an uncommon though grammatical sentence type.

Rather, it is commonly used in topicalized sentences like in 57 and in certain other constructions. For this reason, the examples of Non-Future tense will by and large be topicalized sentences. There is further discussion of this below.

In spite of this difference, the Non-Future tense and the uninflected tense in simple sentences are very similar. Both are used in declarative sentences:

58. a Tiin ngawa peyithad yadpudkan.

1 bite/R/NF C/GN

'This dog (is the one that) was bitten by the snake.'

1

C

b Tiin mangarta tiwadkungad rikad.

1

cry/NF

'This child (is the one who) was crying yesterday.'

1

59. Tiin mangarta tiwadku rikur.

1

cry

'This child cried yesterday.'

Both the Non-Future and the uninflected are used in questions.

In yes-no questions, apparently, only the uninflected tense is used.

(The question word kara 'Q' begins a yes-no question.)

60. a Kara nyi kudi kun karnjinin, ngithun rathad kun?

Q 1 see 2/AC 1/GN spear/NF

'Did you see the wallaby I speared?'

1

2

1

b Kara nyi maari nganikinin yarpujin, pilaa neyithur?

Q 1 bring out 2/AC kill/F

'Did you bring out that bullock (which) will be killed tomorrow?'

1

2

In content questions, either the Non-Future or uninflected tense can be used.

61. a Ngajikanangan punpethad kun tiin ngawa?

1/GN shoot/NF 2

'Who shot this dog?'

1 2

b Ngaju werne nyingki jithad kun?

which 2 1 eat/NF

'What food are you eating?'

62. Ngaju werne nyingki jitha kun?

eat

'What food are you eating?'

24.3.5 The underlying tense system

These are the three surface tenses of Lardil: one with future time reference, and two with non-future time reference, the non-future tense and the uninflected tense, derived by deletion of the non-future.

In terms of absolute and relative time reference, the latter two differ:

| | Absolute | Relative |
|------------------------|----------|---------------------------------------|
| (overt) Non-Future | Yes | No (but Yes in topicalized sentences) |
| Uninflected Non-Future | Yes | Yes |
| Future | Yes | No |

It seems that Non-Future Tense Deletion is applied whenever the relative reference is present, unless this rule is blocked as it is in topicalized sentences for instance.

Underlyingly, then, the Non-Future and Future differ:

| | Absolute | Relative |
|------------|----------|----------|
| Non-Future | Yes | Yes/No |
| Future | Yes | No |

24.3.6 The Eventive

The Eventive clitic kun deserves further examination at this time. Consider these pairs of sentences:

63. a Tiin ngawa ngithunad pethad.
 this 1 2/NF bite/NF
 'This dog bit me, is biting me.' or
 1 2
 'This dog bites me (all the time).'

- b Tiin ngawa petha ngithaan.
 1 bite 2/AC
 'This dog bites me (all the time).' or
 1 2
 (in an appropriate discourse) 'This dog bit me.'

The tenses of 63a,b are the Non-Future and uninflected, respectively.

The sentences refer to events - since the assertion in both instances can be that the proposition 'dog bites me' has been instantiated or is being instantiated at the time of speaking. However, 63a,b also have nomic (or usitative) readings as indicated in the glosses. The Eventive enclitic kun seems to eliminate the nomic reading:

64. a Tiin ngawa ngithunad pethad kun.
 this 1 2/NF bite/NF EV
 'This dog (is the one that) bit me.'
 1 2
- b Tiin ngawa petha kun ngithaan.
 1 bite EV 2/AC
 'This dog bit me.'
 1 2

Thus kun serves to mark a Non-Future proposition as an event that is instantiated as of the time of speaking.

24.3.7 Statives and Nominalizations

There are some predicate types with special restrictions on time expressions, including a class of stative verbs and adjectives, and nominalizations. Neither permit time adverbs:

65. a Tiin mangarta pidpid (*tiwadku).
 this 1 thin
 'This child (is) thin (*yesterday).'
 1

- b Ngithun thapu yakakepen (*tiwadku).
 my 1 fisherman
 'My brother (is) a fisherman (*yesterday).'

Nominalizations distinguish three forms, two of which have endings identical to the tense inflections. Sentence 66 illustrates the future nominalization. Here the future tense indicates that the action of the nominalization is subsequent to the time of speaking;

66. Kanjawaathur mangarta
 dance-shake-a-leg/F child
 'Children who are going to do the shake-a-leg.'

In 67, the nominalization is in the Non-Future tense. There, the Non-Future tense is eventive, referring to an action concurrent with the time of speaking or prior to it. The Eventive kun is, however, not used in this construction.

67. Kanjawaathad mangarta.
 'Youngsters who are doing the shake-a-leg.'

The third type of nominalization is formed with the derivational suffix -in, -Vn, which does not correspond to any tense form. (The conjugation marker is absent in this nominalization.) This nominalization is a generic:

68. Kanjawaan mangarta.
 'Youngsters who do the shake-a-leg.'

24.3.8 The verb kunaa

I have suggested in Chapter Twelve that sentences like 65a,b are derived by deletion of the verb kunaa 'be'. If that verb is not deleted, 69a, the sentence may also be put into the Future 69b, or Non-Future 69c tense, or take the Eventive enclitic 69d.

69. a Tiin mangarta pidpid kunaa tiwadku.
 this child thin be yesterday
 'This child was thin yesterday.'
- b Tiin mangarta pidpid kunaathur.
 be/F
 'This child will be thin.'
- c Mangarta pidpid kunaathad, wutha niya yaka.
 be/NF give 3 2
 'If the child is thin, give him fish.'
- d Ngithun thapu kupa yakakepen kunaa kun.
 my brother good fisherman be
 'My brother was/is a good fisherman.'

Eventive verbs appear with kunaa also. In this case the semantic force is equivalent to a progressive or continuous form which is semantically parallel then to a stative. Compare the following pair of sentences.

70. a Ngithun thapu kupari kun wangalkin.
 1 make 2/AC
 'My brother made a boomerang.'
- b Ngithun thapu kupari kunaa kun wangalkin.
 be
 'My brother was/is making a boomerang.'

24.3.9 Counterfactual sentences

Counterfactual clauses are formed with the clitic mara. The tense of a counterfactual clause is the future.

71. Ngata mara nethur nganikinkur karnjinkur.
 1 kill/F that/F 2/F
 'I should have killed that wallaby (but didn't).'
- 1 2

In an earlier section, it was observed that there are severe selection restrictions between the tense of a clause and the time adverbs and clitics which are permitted. For example, tiwadku 'yesterday' is permitted only the the Non-Future and uninflected tenses, and not in the Future tense.

This restriction is suspended in the case of counterfactual clauses. Thus tiwadku is permitted in a Future tense clause PROVIDED the counterfactual clitic mara is also present.

72. Ngata mara tiwadku nethur nganikinkur karnjinkur.
kell

'I should have killed that wallaby yesterday (but didn't).'

24.4 Tense in dependent clauses

There are no distinctive complementizing formatives in Lardil, unless the Relative Enclitic -ngadi, which is restricted in use, is considered one. It seems that the tense of the subordinate clause plays a major role in signaling the function of the clause, as I will show in this subsection.

A subordinate clause can function as either term or impure dependent. Those functioning as initial subject or direct object must undergo Subject Raising. Examples of the two types are set out in 73 below. Only the initial direct object clause undergoes Infinitivization; a subject clause retains its tense when raising takes place, but Non-Future Tense Deletion applies whenever it has applied to the superordinate clause.

The subordinate clause is parenthesized for easy identification. When it is a chomeur, as in 73a, the subordinate clause can be split up.

73. a Ngata (padkithur) kunaathur (nyithur). SUBJECT
1 chop/F be/F 2/F
'I'll keep on chopping wood.', lit. 'I'll be chop wood.'
1 2
Ngarta (ngukun kurtama) kunaa kun?
1 2/AC drink be
'Who is drinking the water?'
1 2

- b Ngata yuud kudi karnjinin, (kelijid kun). DIRECT OBJECT
 1 see 2/AC hop/INF
 'I saw the wallaby hopping.'
 1 2

Ngata tiwadku kudi tangan, (nenjijid kun).
 1 2/AC hit/RECIP/INF
 'I saw men fighting each other yesterday.'
 1 2

Ngata kurithur tangkar, (yakur pulejid kun).
 1 see/F 2/F 2/INF catch/INF
 'I want to see the men, catch fish.'
 1 2 2

Nyingki kudithad niwenad (nejid pulakar), nyingki kalkathur.
 1 see/NF 2/NF kill/INF 2/INF 1 sick/F
 'If you see him, kill the bullock, you'll get sick.'

Subordinate clauses functioning as impure dependents fall into various groups. Complements of verbs like werne 'send', kangka 'say', and so on undergo Equi in the Future tense, and optionally Tense Deletion in the Non-Future tense, cf. 74. There is no Infinitivization here. Clauses of time may be either Future or Non-Future, and undergo Infinitivization as in 75 under identity with the superordinate tense.

74. a Future

Ngata kangkur niwenthar, mathuru thaathuru nyithuru.
 1 tell/F 3/F get/F/AC return/F/AC 2/F/AC
 'I'll tell him, to fetch (get and return) firewood.'
 1 3

- b Tiin wangal, nyingki kangka kun ngithaan, ngata wirima kun.
 DS/2 1 tell 3/AC 1 bring
 'This boomerang, you told me, for me to bring (it) (and I did so).'
 DS/2 1 3 1

75. a Ngata netha pirngenin, rajid karnjinkur.

1 hit 2/AC spear/INF 2/INF

'I hit the woman, when/as she speared the wallaby.'

1 2 1 2

b Ngata wiithur kararur tiinkur wangalkur, ngimpen purltijid

1 trim/F Prog 2/F 1/GN spin/INF

pidkur.

2/INF

'I'll be trimming this boomerang, while you're spinning twine.'

1 2 1 2

Another sentential impure dependent is the Adjoined clause. As we have seen in previous sections, Adjoined clauses may be in either the Future or Non-Future tense, and although Non-Future Tense Deletion is permitted under very limited circumstances (when the relative clitic ngadi is present), Infinitivization never applies. Ample exemplification of Adjoined clauses has already been supplied.

One further clause type is the Admonitive clause, in which the verb is inflected for the Admonitive -med(a), instead of for tense. Some examples of this clause type are given below. A full study of these lies outside the scope of the present investigation.

76. a Ngata mathur mangkurtangkar, [wunta piranymed].

1 take/F 2/F 1 arrive/ADM

'I'll take the child, lest the rain come up.'

1 2 1

'I'll take the child, in case the rain comes up.'

b (Nyingki) kudi mangarta, [niya peyinymed yarpurkan].

watch 2 1 bite/R/ADM C/GN

'(You) watch the child, lest he be bitten by a snake.'

1 2 1 C

c Ngata kudi kun maanangan, [peyinymeda].

1 2/AC bite/R/ADM/AC

'I was watching the child, lest (he) be bitten.'

1 2

d Ngithun thapu thaathur, [wadka thulenymed].

my 1 return/F set/ADM

'My brother will go back, lest the sun go down.'

1

1

24.4.1 Absolute and Relative values of tenses in subordinate clauses

Tense in a subordinate clause always receives relative interpretation. Moreover, Future tense is also always absolute, while underlying Non-Future may or may not be. This represents a sharp difference from main clauses, where future tense is never relative, and underlying Non-Future may or may not be. These points are demonstrated by 74a,b and 77 below. In 74a, both main and subordinate clauses are Future tense. The time of the subordinate clause is both subsequent to that of the main clause, (hence Relative) and to the time of speaking (Absolute). In 74b, both clauses are Non-Future and have undergone Tense Deletion. The subordinate proposition is that of an action subsequent to the main clause action, so the relative interpretation of the Non-Future is absent. However, the use of a sentence like 74b is clearly limited to a situation where the person has carried out the directive by the time of speaking. That is, the (underlying) Non-Future tense of the subordinate clause in 74b has an absolute value. If the directive is not carried out by the time of speaking, then the subordinate clause must go in the Future, as in 77:

77. a Ngata kangka kun niween, niya mathur ngukur.

1 tell 3/AC 1 get/F 2/F

'I told him, for him to get water.'

1 3 1 2

b Ngata kangka kun niween, mathuru ngukuru.

1 3/AC get/F/AC 2/F/AC

'I told him, to get water.' (paraphrases a)

1 3 2

So far, we have seen the following tense interpretations in secondary terms:

| | Relative | Absolute |
|----|----------|----------|
| NF | No | Yes |
| F | Yes | Yes |

Allowance must be made for the Non-Future to have Relative force in some subordinate clauses functioning as secondary terms:

78. a Ngata ngaluthar ngimpenthar, ngithun kampin kalkathad.

1 tell/F 3/F my 1 sick/NF

'I'll tell you, about my son's being sick.'

1 3 1

b Kiinta ngalu kun ngithaan, nyingki rathad kun karnjinad.

1 tell 3/AC 1 spear/NF 2/NF

'That man told me, about you spearing a wallaby.'

1 3 1 2

The final tabulation is, then:

| | Relative | Absolute |
|----|----------|----------|
| NF | Yes/No | Yes |
| F | Yes | Yes |

The difference between Relative and non-Relative interpretation for Non-Future apparently sets up a condition for Tense Deletion in subordinate clauses. The latter rule only applies to a Non-Future tense with a non-Relative reading. (Tense Deletion applies to a main clause only if there is a Relative interpretation.) The overall study is summarized here.

| 79. a | Relative | Absolute |
|-------------|----------|----------|
| Main clause | | |
| NF | Yes/No | Yes |
| F | No | Yes |
| Term | | |
| NF | Yes/No | Yes |
| F | No | Yes |

| | Relative | Absolute |
|------------------|----------|----------|
| Impure dependent | | |
| NF | Yes/No | Yes |
| F | Yes | Yes |

b Conditions on Tense Deletion

Main clause: NF must be Relative
 Term: whenever rule applies in main clause
 Impure dependent: NF must be non-Relative

24.4.2 Tense in Adjoined clauses

Tense in Adjoined clauses is always relative, in this respect differing from all the other clause types studied so far. Furthermore, while Future tense is (as elsewhere) Absolute, it seems that Non-Future is always non-Absolute in Adjoined clauses. To get an Absolute Non-Future reading in such a clause, it is necessary to insert the Eventive or some similar non-Tense formative of time.

These observations will now be illustrated. Take first a conditional clause, of the realis type. The time of the condition is freely non-future or future in Absolute terms. In relative terms, though, it has non-future time. It is the relative time that is formally marked by the Non-Future Tense morpheme: a clause of condition is always in the Non-Future tense.

80. a Tiin mangarta rikad, ngata wekajithur ngimpenthar.

1 cry/NF 1 call/F 2/F

'If this child cries, I'll call you.'

1 1 2

b Nyingki warama kunaathad, kiyankur ngukur nyingki kunaathur temin.

1 be/NF two years 1 be/F

'When you are an advanced initiate (warama), you will be "silent"

1 1

(temin) for two years.'

Another function of an adjoined clause is as a clause of reason.

The basic logical difference between a clause of condition and a clause

of reason is that the latter is actually instantiated. Therefore the presence of the Eventive enclitic kun in an adjoined clause is sufficient to distinguish it as reason, not condition.

81. a Ngata kalka kun relka, (ngata) yakad jithad kun.

1 ache C 1 2/NF eat/NF

'I have a headache, because I ate fish.'

1 C 1 2

b Pirngen netha kun marunin, niya yakad jithad kun.

1 hit 2/AC 1 2/NF eat/NF

'The woman hit the boy, because he ate fish.'

1 2 1 2

N-Relatives, like clauses of reason, are distinguished from conditional clauses by being instantiated - it is by virtue of this fact that an adjoined clause can serve the identificational role as a N-Relative. And so, N-Relatives contain the Eventive.

82. a Ngata wirimathur kiinkur (wangalkur), kidpiinad ngimpen wuthad

1 take/F N_A/2/F 1/GN give/NF

kun ngithunad wangal.

3/NF RL/2

'I'll take that boomerang which you gave to me some time ago.'

1 N_A/2 1 3

b Tangka wungi kun ngithunin wangalkin, ngithun tenethad kun wangal.

1 steal N_A/2/AC 1/GN leave/NF RL/2

'Somebody stole the boomerang which I left.'

1 N_A/2 RL/2 1

In all these examples of adjoined clauses in the Non-Future, there is always a Relative Time reading, but there is no Absolute Time reading, except where forced by the presence of the Eventive. In summary:

| | Relative | Absolute |
|------------------|----------|----------|
| Adjoined clauses | | |
| NF | Yes | No |

There remains one further function of the adjoined clause: as a clause of purpose. The logical possibilities for the time of a clause of

purpose are only future relative to the main clause, but either future of non-future in absolute terms. Lardil does not seem to admit the two logical possibilities. The Future tense clause of purpose in 83 below is future in both absolute and relative senses. It is not possible for this sentence to have a reading equivalent to 'I gave you this boomerang so you could kill a wallaby (which you have done).'

83. Ngata wutha kun ngimpeen tiinin wangalkin, nyingki nethur
 1 give 3/AC 2/AC 1 kill
 karnjinkur.
 2/F

'I gave you this boomerang so you can kill a wallaby.'

1 3 2 1 2

The same is true of Future tense in an N-Relative function of an adjoined clause: 84 cannot permit the non-absolute reading 'Did you see the tree that I have chopped down?'.

84. Kara nyingki kudi kun thungalin, ngithun padkithur thungal?
 Q 1 see N_A/2/AC 1 chop/F RL/2
 'Did you see the tree which I'm going to chop down?'
 1 N_A/2 RL/2 1

The summary below incorporates the observations just made.

| 85. | Relative | Absolute |
|---------------------|----------|----------|
| Main clause or Term | | |
| NF | Yes/No | Yes |
| F | No | Yes |
| Impure dependent | | |
| NF | Yes/No | Yes |
| F | Yes | Yes |
| Adjoined clause | | |
| NF | Yes | No |
| F | Yes | Yes |

24.4.3 Infinitivization

I have previously suggested two different sources for infinitive

clauses. I will now show the differences between the two. Type A infinitives result from the application of Subject to Object Raising. Regardless of the underlying tense, an Infinitive is created. Type B infinitives are not derived by any ascension rules. They are clauses functioning as secondary terms of time. The tense of this clause type is converted to the Infinitive only under identity with the tense of the superordinate clause.

Distinguishing these two types of infinitives accounts for a range of facts about Lardil syntax. In the present subsection, I deal with the facts centering on tense and time.

There is a peculiar fact about type A infinitives which the analysis suggested above solves immediately. Type A infinitives are either (i) Absolute but non-Relative or (ii) non-Absolute but Relative. If we first examine type A infinitives in a sentence in which the main clause is Non-Future Tense, no evidence for two types arises. Both of the readings can be derived from an underlying Non-Future in what becomes the infinitive. So it could be that the claim above about raising is correct, or it could be that even type A infinitives result from tense being converted to Infinitive by identity with the superordinate tense.

86. Ngata kudi kun ngithunin thapujinin, ngirnepudijid karnjinkur.

1 see my/AC 2/AC skin/INF 2/INF

1. 'I saw my brother, when (he) was skinning a wallaby.'

1 2 2

2. 'I saw the brother of mine (who) is (just now) skinning a wallaby.'

But when the main clause is Future, there are also two possible readings:

87. Ngata kudithur ngithunkur thapujiwur, ngirnepurijid kun karnjinkur.

1 see/F my/F 2/F

1. 'I'll see my brother when (he) is skinning a wallaby.' (without kun)

2. 'I'll see the brother of mine (who) is (just now) skinning a wallaby.' (with kun)

While the first of these readings could have Future tense underlying the Infinitive, the second could not. Neither an absolute nor a relative reading for the future tense could give rise to this second reading. It

must instead have an underlying Non-Future Tense. To delete this Non-Future and replace it by the Infinitive requires an analysis like I have claimed, the alternative (deletion by identity with a higher tense) won't work.

Type B infinitives don't exhibit these semantic possibilities. When the main clause is Non-Future in tense, a type B infinitive has a relative reading for that tense, i.e. preceding or simultaneous with the main clause.

88. a Ngata (*yuud) ratha yakin, ngimpeen rajid kerntapalur.
 1 spear 2/AC 1/AC spear/INF 2/INF
 'I (*have) speared a fish, while you speared a wallaby.'
 1 2 1 2
- b Ngata (*tiwadku) mirnkemirнке tulke, tangan nenjijid kun.
 1 sit ground/LC 1/AC hit/RECIP/INF
 'I sat on the ground (*yesterday) while the men were fighting
 1 1
 each other.'
- c Ngata putaa tulkiyaa, ngithunin kanthan waangkud.
 1 after V my/AC 1/AC go/INF
 'I was born after my father left (went).'
 1 V
- d Ngithun thapu yuujid jidpaltii kun, ngithaan waangkud kun.
 1 before hide 1/AC go/INF
 'My brother hid before I came back (went).'
 1 1

When the main clause is Future, then a reading consistent with a relative reading for the Future is found in the infinitive.

89. Ngata padkithur thungalur, ngithunin thapujin ngirnepudijid
 1 chop/F 2/F 1/AC skin/INF
 karnjinkur.
 2/INF
 'I'll chop down a tree, while my brother is skinning the wallaby.'
 1 2 1 2

It is difficult here to tell if an absolute reading is necessarily present or absent. The Future tense is otherwise consistently Absolute, so we can assume it to be absolute here too.

The interpretation for tense when converted to the Infinitive is summarized below.

| | | | | |
|-----|------------|----------|----------|-------|
| 90. | | Relative | Absolute | |
| | Type A | | | |
| | Source: NF | Yes/No | Yes/No | |
| | F | Yes | Yes | |
| | Type B | | | |
| | Source: NF | Yes | Yes | or No |
| | F | Yes | Yes | No |

24.5 Topics

Three basic sets of semantic concepts are those of topic:comment, focus:presupposition, and new information:old information.

In this section, I consider these notions, and the role that they play in adjoined clauses.

24.5.1 Dislocatee

Consider the following sentences:

91. a Ngata kupari kun ngithunin thapujin tiinin wangalkin.
 1 make 3/AC 2/AC
 'I'm making this boomerang for my brother.'
 1 2 3
- b Ngata pilaa wuthur ngimpenthar tiinkur wangalkur.
 1 give/F 3/F 2/F
 'I'll give you this boomerang tomorrow.'
 1 3 2

92. a Tiin wangal, ngata kupari kun ngithunin thapujin.

DIS/2 i 3/AC

'This boomerang, I'm making (it) for my brother.'

DIS/2 3

b Tiin wangal, ngata pilaa wuthur ngimpenthar.

DIS/2 1 give/F 3/F

'This boomerang, I'm going to give (it) to you tomorrow.'

DIS/2 1 3

The sentences in 91 are ordinary Lardil sentences in every respect. They display the usual surface word order Subject-Verb-Indirect Object-Direct Object. The subjects are uninflected (nominative), while the direct and indirect objects either show the accusative case, 91a, in accord with the rules of case assignment or concord in tense, 91b. But the sentences in 92 are different in the above respects from ordinary simple sentences. In 92a,b, the direct object does not follow the verb, instead it is at the beginning of the sentence, preceding the subject. Moreover, the pause following the first sentence constituent is not at all associated with ordinary sentences. (This pause, although common in sentences like 92 is optional.) Another striking feature of 92 is the lack of any inflection on the nominal at the beginning of the sentence: observe that the nominative tiin wangal 'this boomerang' in 92a stands in the same grammatical relation, i.e. direct object, as tiinin wangalkin 'this/AC boomerang/AC'.

Sentences like those in 92 are appropriate only in a limited context, compared to those in 91. While both 91a and 92a, for example, make an assertion that the speaker has made a certain boomerang for his brother, 92a also conveys the idea that it is the boomerang that is of concern, i.e. there is an "aboutness" focus on tiin wangal, the nominal which has been dislocated to the beginning of the sentence and had its case inflection removed.

The net effect, then, of dislocating a nominal, moving it to the front of the sentence and deleting its grammatical ending is to make it the topic of the sentence. That is to say, the Dislocatee is one about which the rest of the sentence is an assertion. It is evident that it

b Ngata tulte kun tiinin ngad kun.

1 dig 2/AC

'I dug this well.'

1 2

The pairs 93a-94a and 93b-94b have identical propositions: the action is the same; the thematic relations are the same. However, while the sentences in 94 are ordinary expectable simple sentences, those in 93 are distinctive in several respects.

Sentence 93a, for example, differs from the corresponding simple sentence 94a in that the direct object appears in front of the rest of the sentence, without the accusative case inflection; unlike a Dislocatee, it is not separated from the rest of the sentence by comma intonation. Moreover, the verb in 93a is inflected for the Non-Future tense, while the common tense for non-future time in a simple sentence is the uninflected tense, cf. 94a. Corresponding to the nominative subject of 94a, we find a nominal in the Genitive in 93a. Thus 93a can have an associated presupposition that is absent with 94a. This kind of sentence, which I term a topicalized sentence, has tense restrictions that are exemplified by the above sentences. For non-future time, only the Non-Future tense may be used: a topicalized sentence is illformed in the uninflected tense, as 95 demonstrates (i.e. Non-Future Tense Deletion is blocked in topicalized sentences).

95. a *Tiin wangal ngithun kupari kun ngithunin thapujin.

TP/2 1/GN 3/AC

b *Tiin ngadka ngithun tulte.

TP/2 1/GN

The only other tense permitted in a topicalized sentence is the future:

96. Tiin ngadka ngithun tultethur.

TP/2 1/GN dig/F

'This well (is the one) I want to dig.'

TP/2 1

Semantically too, there is a potential difference between 93a and 94a. The ordinary simple sentence 94a is an assertion about an event,

the speaker's making of a certain boomerang for his brother. Sentence 93a can also assert this, but alternatively it can assert only that it was a specific boomerang that the speaker made. In saying 93a with this meaning, the speaker is assuming it to be common knowledge that he made something: what he is doing is identifying the thing that was made and he is doing this by asserting that it is a particular boomerang, namely the one that he had made for his brother.

Only a term can be topicalized: direct object (93) or indirect object (97).

97. Ngithun thapu ngithun kuparithad kun tiinad wangalkad.

TP/3 1/GN make/NF 2/NF

'My brother (is the one that) I made this boomerang for.'

TP/3 1 2

However, it is possible to topicalize impure terms if they advance to termhood. For example, an instrumental phrase can advance to direct object and then be topicalized. Thus the instrumental phrase in 98a is topicalized in b.

98. a Ngata ratha kun karnjinin tiinkur maarkur.

1 spear 2/AC IN

'I speared a wallaby with this spear.'

1 2 IN

b Tiin maark ngithun rathad kun karnjinad.

TP 1/GN V/NF 2/NF

'This spear (is the one) I speared the wallaby with.'

TP 1 2

Also, a locative phrase can be topicalized.

99. a Ngata tiwadku mirnkemirake tiinnge parngaa.

1 sit this/F stone/LC

'I was sitting on this stone yesterday.'

b Ngata wirtithur kiinkur pilaankur.

1 sit/F that/F shade/F

'I'll sit in that shade tomorrow.'

100. a Tiin parnga ngithun mirnkemirnkethad tiwadkungad.

TP 1/GN sit/NF

'This stone (is the one that) I was sitting on yesterday.'

b Kiin wika ngithun wirtithur pilaankur.

TP 1/GN sit/F

'That's the shade I'm going to sit in tomorrow.'

When a locative cannot advance to termhood, it cannot topicalize:

101. a Ngata kupari kun wangalkin ngampide.

1 make 2/AC house/LC

'I made a boomerang in the house.'

1 2

b *Tiin ngampid ngithun kuparithad kun wangalkad.

TP 1/GN make/NF 2/NF

The examples so far have shown clearly that topicalization can set up a focus:presupposition partition. Nevertheless, that particular semantic structuring is not necessarily present. The sentences can in fact be alternatively taken as having a topic:comment partition. There is a whole class of sentences that will prove that topicalization does not necessarily set up a focus:presupposition partition. These are content questions to which topicalization has applied:

102. Ngajinangan rathad kun tiin ngawa.

1/GN spear/NF TP/2

'Who speared this dog?'

1 2

The question word must be the focus: this follows automatically from the definition of focus and presupposition.

But observe that in 102, the question nominal, although the subject, is not uninflected, for the object has been topicalized.

b Ngata tha rathad kun kiinad kentapalngad.

1 spear/NF 2/NF

'I (am the one who) speared that dugong.'

Furthermore, topicalization is not a prerequisite for a focus:presupposition partition. For example, the enclitic tha, attached to the

first surface word, makes the subject the focus.

102. Ngata tha netha kun ngimpenin ngawun.

1 kill your/AC 2/AC

'I (am the one who) killed your dog.'

1

2

The subject of the sentence may be the topicalized nominal. Since the subject is in the nominative and begins the sentence in an ordinary simple sentence, such a sentence is ambiguous between, on the one hand, the weak 'aboutness' focus:assertion partition associated with any simple assertive sentence, and, on the other hand, a focus:presupposition, the subject being the focus and the rest the presupposition under the latter reading. For example, 103 is ambiguous in this way.

103. Tiin mangarta tiwadkungad rikad.

TP/1

cry/NF

'This child (is the one that) was crying yesterday.'

TP/1

It is usual for the topicalized nominal to contain the demonstrative pronoun tiin 'this'. This probably relates to the identificational function of the topicalized sentence, in that a particular object is singled out through the use of the demonstrative. When the demonstrative is not used, it seems to be due to the presence of a possessive pronoun, as in 96. In general then, the topicalized nominal requires a definite determiner, this category including demonstratives and definite personal pronouns.

The focussed reading is forced in a sentence like 100a if the focussing enclitic tha is introduced. This enclitic follows the first word of the sentence, regardless of constituent structure.

104. a Tiin tha mangarta tiwadkungad rikad.

TP/1

cry/NF

'This child (is the one that) was crying yesterday.'

b Ngata tha rathad kua kiinad kentapalngad.

1 spear/NF

2/NF

'I (am the one who) speared that dugong.'

24.5.3 Detopicalization

It has been observed that the word order in topicalized sentences differs from word order otherwise. Whereas other sentences begin with the subject, unless stylistic reordering has moved it, followed by the verb, followed by the rest of the sentence, a topicalized sentence begins with the topicalized nominal, followed by the subject and verb in that order, followed by the rest of the sentence. The following sentences illustrate the two contrasting word orders: Subject-Verb-etc. in 105; Topic-Subject-Verb-etc. in 106.

105. a Wadngal terlte kun kiin in thungalin.

1 2/AC

'The wind blew down (lit. broke) that tree.'

1

2

b Ngata rajadi tiinin karnjinin.

1 spear/NF 2/AC

'I didn't spear that wallaby.'

1

2

c Ngata rathur kiinkur kentapalur.

1 spear/F 2/F

'I want to spear that dugong.'

1

2

d Ngithun thapu kupar' kun tiinin ngampijin.

1 make 2/AC

'My brother made this humpy.'

1

2

106. a Kiin thungal wadngalkan terltethad kun.

TP/2 1/CN break/NF

'That tree was (the one) blown down by the wind.'

TP/2

1

- b Tiin karnjin ngithun raned kun.
 TP/2 1/GN spear/NF
 'This wallaby (is the one) I didn't spear.'
 TP/2 1
- c Kiin kentapal ngithun rathur.
 TP/2 1/GN spear/F
 'That dugong (is the one) I'm going to spear.'
 TP/2 1
- d Tiin ngampid ngithun thapujikan kuparithad.
 TP/2 1/GN make/NF
 'This humpy was (the one) built by my brother.'
 TP/2 1

It is not uncommon, however, to find topicalized sentences in which the topicalized nominal does not appear at the beginning of the sentence, e.g. 107. The expected form for these is as in 108.

107. a Ngawukan jithad kun tiin yaka.
 1/GN eat/NF TP/2
 'This fish was (the one) eaten by a dog.'
 TP/2 1
- b Tangamen terltethad ngithun maarn.
 1/GN break/NF TP/2
 'My spear (is the one that) has been broken by someone.'
 TP/2 1
- c Yakan terltethad kun kiin pidka.
 1/GN TP/2
 'That line (is the one that) a fish broke.'
 TP/2 1
- d Ngithun ngamakan kuparithad tiin jumud.
 1/GN TP/2
 'This coolamin was (the one) made by my mother.'
 TP/2 1

e Ngithun rathad kun tiin ngawa.

1/GN

TP/2

'This dog was (the one) speared by me.'

TP/2

1

108. a Tiin yaka ngawukan jithad kun (=107a)

TP/2 1/GN

b Ngithun maarn tangamen terltethad. (=107b)

TP/2 1/GN

c Kiin pidka yakan terltethad kun. (=107c)

TP/2 1/GN

d Tiin jumud ngithun ngamakan kuparithad. (=107d)

TP/2

1/GN

e Tiin ngawa ngithun rathad kun. (=107e)

TP/2 1/GN

The word order in 107 is, interestingly enough, identical to that of a non-topicalized sentence: Subject-Verb-Object. Suppose then that the fronting of the topicalized nominal is optional, and the only obligatory aspect of the change is in case inflection for subject and topicalized nominal. Under this analysis, the actual fronting of a topicalized nominal, as in 108, is presumably due to a rule of stylistic reordering. As we have seen, old information tends to be reordered toward the end of the sentence, and a natural extension of this is that new information is reordered toward the beginning of the sentence. The focus of the sentence is frequently new information, and so we would predict that it would be shifted in most topicalized sentences, a prediction which the facts bear out, as we have seen.

Conversely, sentences in which the topicalized nominal is not shifted to the left of the sentence would be expected where the focus is not new information. This does seem to be true, too, for example, 107a was recorded as one of a series of sentences in which the immediately preceding two contained the noun phrase tiin yaka. Sentences 107b,c were recorded in similar contexts; the context of recording for 107d,e is not presently available. There are instances where detopicalization

actually places the topicalized nominal at the end of the sentence, although its underlying position is not sentence-final.

24.5.4 Establishing the focus:presupposition partition

From the immediately preceding discussion, we can see that the three possible partitions in a sentence (old:new information; topic:assertion, focus:presupposition) are not mutually exclusive. In this subsection, I consider the question of how we establish the focus:presupposition partition which is possible for any given surface sentence.

It has already been noted that focussed nominal in a sentence need not necessarily be a topicalized one. Instead, the focussed nominal can be the subject, as in 103-104. Apart from the syntactic rule of topicalization, then, it is necessary to have a semantic rule which determines the focus:presupposition partition.

The focus, if any, is that nominal which is highest on the hierarchy below:

- i. content question phrase
- ii. topicalized nominal
- iii. subject

24.5.5 Topic and focus in adjoined clauses

The syntax of topic and focus in simple sentences carries over, naturally enough, to main clauses of complex sentences. Moreover, some interesting facts emerge if we study the possibilities of topicalization in clauses other than the main clause. It is possible that the syntactic and semantic rules and constraints which govern focussing in main clauses are all and only the rules and constraints that will be needed for adjoined clauses. That is to say, no special rules of relative clause formation are needed for Lardil. It is sufficient that we have the independently proposed rules and constraints.

24.5.5.1 Relative clause formation

We have seen examples of restrictive relative clauses and in section 24.4, I discussed tense interpretation in this construction. Let us now

look more closely at the other aspects of the form of relative clauses. Consider the examples below.

109. a Ngata kewe kun karnjinin, ngimpen rathad kun karnjin.

1 V 2/AC 1/GN spear/NF RL/2

'I capmari'd the wallaby, which you speared.'

1 V 2 RL/2 1

b Ngata kunaa kun ugampide, ngithun thapujikan kuparithad kun

1 live house/LC 1/GN make/NF

ngampid.

RL

'I'm living in the house, which my brother made.'

1 RL 1

c Ngata kunaathur nganikinkur tawunkur, ngithun thapujikan

1 live/F house/F 1/GN

kuparithur tawun.

make/F RL

'I'll live in the house, which my brother is going to build.'

1 RL 1

In 109, the relative clause is at the end of the main clause, separated by it by a pause, as indicated by the comma. The antecedent is in the case form appropriate for its own clause: e.g. in 109a, the antecedent karnjinkur is inflected for the Future because it is governed by a verb in the Future tense. But the relative clause in itself does not show the inflectional category of the antecedent. However, there is something special about the inflectional categories shown by the nominals in the relative clauses. In 109a, for example, the subject of the relative clause, ngimpen, is in the Genitive case, and not the Nominative, as we might expect a subject to be. At the same time, the direct object is not inflected for the Non-Future tense, although this is what we have come to expect of non-subjects in a Non-Future clause. Instead, the direct object of the relative clause of 109a is in the nominative. This nominal is coreferential with the antecedent, i.e. it is the relativized N. There is a clear difference in the internal form of a relative clause

surface structure, on the one hand, and that of certain purpose or rational clauses on the other. Sentences 110 illustrate these latter kinds of subordinate clause. There it can be observed that the subjects of the clauses of purpose and reason are in the nominative, while the direct objects show concord in tense.

110. a Ngata wernethur niwenthar kungungkur tangkar, niya wampalur
 1 send/F 2/F 1 inland/F
 kunaathur penkiwur ngukur.
 live/F swamp/F water/F
 'I'll send my sister, (for her) to live in the inland swamp water.'
 1 2 1
- b Ngata wirnimathur ngimpenthar, terltentkur mangurur kunaathad.
 1 carry/F 2/F broken/PRP rib/PRP be/NF
 'I'll carry you, because (you) have a broken rib.'
 1 2

These observations about the syntax of restrictive relative clauses must be accounted for in the grammar of Lardil.

The morphological form of each of the relative clauses above is identical to that of a topicalized sentence. (The word order differs in topicalized sentences and relative clauses: I treat this below.) Topicalization is restricted to clauses in the Future and Non-Future tenses, and each of 109a,b,c are in one or another of these tenses. In a topicalized sentence, one nominal will be in the Nominative case, and the underlying subject will take the Genitive case. Again, each of 109 conform precisely, because the underlying subjects are in the Genitive and the underlying direct objects in the Nominative.

More interestingly, a relative clause of the type illustrated in 109 is subject to exactly the same syntactic constraints as a topicalized sentence. Recall that the topicalized nominal can only be a term. To review briefly, a locative expression like that in 111a can be topicalized, as in 111b, because it advances to direct object; 111c cannot advance and so cannot be topicalized, *111d.

111. a Ngata mirnkemirnke tiinnge parngaa tiwadku.

1 sit stone/LC

'I was sitting on this stone yesterday.'

b Tiin parnga ngithun mirnkemirnkethad tiwadkungad.

TP 1/GN sit/NF yesterday

'This stone (is the one) I was sitting on yesterday.'

c Ngata ratha kun karnjinin tiinnge nyerwii tilanthaad.

1 spear 2/AC place/LC once

'I once speared a wallaby in this place/'

d *Tiin nyerwe ngithun rathad karnjinad tilanthaad.

TP 1/GN V/NF 2/NF

Intended meaning: 'This place is where I once speared a wallaby.'

TP 1 2

Let us now consider relative clauses which correspond to the simple sentences 111a and 111b, i.e. which contain relativized nominals that are term and non-term, respectively. The two sentences 112a,b contain the relative clauses of concern here: observe that their morphological form is in conformity with earlier observations, and that the morphological form (though not the word order) is identical to that of the topicalized sentences 11b,d.

112. a Ngata janijani kun kiinini parngan, ngithun mirnkemirnkethad

1 seek 2/AC 1/GN sit/NF

tiwadkungad parnga.

RL

'I'm looking for that stone, which I was sitting on yesterday.'

1 2 1

b *Karan ngani nyedwe, ngithun rathad karnjinad tilanthaad nyedwe.

where that place 1/GN V/NF 2/NF once RL

Intended meaning: 'Where is that place, where I once speared a

RL 1 V

wallaby?'

2

We have seen that restrictive relative clauses conform exactly to the morphological and syntactic requirements of topicalized sentences (excluding word order).

Let us then consider just how the grammar of Lardil is to generate sentences like 109 and 112a, while not permitting the generation of ungrammatical sentences like 112b. One alternative, in the transformational framework, is to construct a rule of Relative Clause Formation: such a rule would convert a subordinate clause with the same underlying form as any other sentence into the surface form that we have been studying. But observe that this rule would have to make exactly the same case changes that the Topicalization rule does.

Moreover, the two constraints on relative clauses which we have observed so far (one restricting the tense to Future or Non-Future; the other requiring the relativized nominal to be a term) are already needed for the Topicalization rule. That is, we are faced with a duplication in the grammar: both the Topicalization rule and the proposed Relative Clause Formation rule, as transformations, have exactly the same Structural Description, and make exactly the same Structural Change (ignoring word order for now).

In a transformational grammar, it is therefore desirable to collapse the two rules into one.

In the Relational Grammar framework, of course, this question does not arise, because Topic and Relativized Nominal are distinct overlay relations and nothing is gained by merging the two.

24.5.5.2 Word order

There is one very obvious difference between a simple topicalized construction and a relative clause, and that is the word order. In a simple sentence, the topicalized nominal is usually sentence-initial, but in the examples of relative clauses so far, the relativized nominal is at the end of its clause. If we wish to pursue the transformational approach and merge the two, then this difference in word order could be explained in terms of the stylistic reordering rules. We have seen that the topicalized nominal in a simple sentence tends to be shifted to the

beginning of the sentences if it is new information. In relative clause constructions exemplified by 112a the relativized noun phrase is necessarily a repetition of a nominal, namely, the antecedent, in the main clause, and so it is quite expectably that the relevant stylistic reordering rule is detopicalization, i.e. just the rule that moves a nominal to the end of its clause. In word order, then, there is again support for the contention that relative clause formation is done by independently needed rules of Lardil.

24.5.5.3 Semantic differences among adjoined clauses

We are examining the claim that restrictive relative clauses have exactly the same underlying representation as purpose and rational clauses. It is clear that, besides the significant semantic and syntactic similarities among these clause types, there are differences which must be accounted for as well. Semantically, purpose and rational clauses relate to the whole proposition of the main clause, indicating more fully the circumstances under which the instantiation of the main clause proposition takes place. In particular, the purpose clause gives us a temporally posterior circumstance (110a) and the rational clause a prior circumstance (110b).

The semantic difference between purpose and rational clauses is directly related to the choice of tense: the future indicates a temporally posterior proposition (110a) and the non-future a prior proposition (110b). The restrictive relative clause ranges freely over both Future and Non-Future tenses, but its meaning does seem to differ significantly from the other clause types. The relative clause serves to identify one nominal in the main clause, and so it might be said to modify only that nominal, and not the entire main clause proposition. However, it is not really clear that this is the right way to look at the sentence type in question. It is still the case that a restrictive relative elaborates upon the appropriate circumstances for the proposition of the main clause to be instantiated. That it plays an even narrower role, i.e. relating to one particular nominal, is due to the assumed use of topicalization in the subordinate clause. Since topicalization serves to

identify one nominal in a simple sentence, it is natural that it does the same in an adjoined clause.

It is unlikely that it is even necessary to impose a condition on the restrictive relative that it contain a nominal coreferential with one in the main clause. Firstly, observe that this is not a general condition on adjoined structures, for purpose and rational clauses are not subject to it, though there is no restriction that they not contain such nominals, either.

Suppose then that we arbitrarily topicalized some nominal in a subordinate clause that had no antecedent in the main clause. The result would simply be that we would be describing the circumstances of the instantiation of the main clause proposition in terms of some entity that had no role whatsoever in that proposition. It seems reasonable to think that such a sentence would be rejected due more to incoherence than ungrammaticality.

24.5.5.3 Pronominalization

In the examples of relative clauses above, the coreferential nominals (i.e. the antecedent in the main clause and the relativized nominal in the subordinate clause) are both overtly expressed. But there is an optional variant in which the relativized nominal is deleted, e.g. 109a is paraphrased exactly by 113.

113. Ngata kewethur karnjinkur, ngimpen rathad kun.

1 V/F 2/F 1/GN spear/NF (=109a)

However, this optional deletion is not peculiar to relative clauses. It is simply one form of pronominalization which is possible in Lardil. In general, a nominal may be deleted if it is to the right of a coreferential nominal. Pronominalization by deletion may apply between two simple sentences (114a); from a main clause into a subordinate clause (114b); or even from a preposed subordinate clause into the main clause (114c). In examples 114, the optionally deleteable nominal is enclosed in parentheses.¹

114. a Kara yuud petha ngawa ngimpeen?

Q bite 1 2/AC

(Ngawa) pejadi ngithaau.

1 bite/NG 2/AC

'Did the dog bite you?'

1 2

'(It) didn't bite me.'

1 2

b Kiin mangarta mara ngithun miwuthur, (mangarta) yuud tene ngithaan.

TP/2 1/GN care/F leave 2/AC

'I was supposed to care for that child, but (it) left me.'

1 TP/2 1 2

Again, the syntax of relative clauses does not reveal the need for any rules which are not needed independently.

24.5.5.4 Case Agreement and Relativized N Deletion

There is another rule which deletes the relativized nominal, and which should not be confused with pronominalization. Applied to 109a, it yields 115; contrast 113 above.

115. Ngata kewe kun karnjinin, ngimpenin rathadpanu. (=109a,113)

1 V 2/AC 1/GN/AC spear/NF/AC/EV

In both 113 and 115, the relativized nominal has been deleted, but in 115 additional surface inflections are evident in the subordinate clause. Specifically, the remaining dependents of the subordinate clause are inflected for the Accusative in 115 but not in 109a or 113. The appearance of the accusative here is not a completely free option, however. In 116a, an ungrammatical sentence is produced if the accusative inflections are chosen; contrast 116b.

116. a *Kiin karnjin kewe kun tangan, ngimpenin rathadpanu.

V/R C/AC 1/GN/AC spear/NF/AC/EV

Intended meaning = 116b.

b Kiin karnjin kewee kun tangan, ngimpen rathad kun.

1 V/R C/AC 1/GN spear/NF EV

'The wallaby which you speared was captured by someone.'

1 1 V C

Whether or not the Accusative appears distributed through the subordinate clause is directly dependent on the case of the antecedent. In 115, the antecedent karnjinin is in the Accusative, and the subordinate clause agrees with it in taking the accusative. But in 116, the antecedent is in the nominative or uninflected case, and the subordinate clause remains uninflected.

In 115 and 116, it is the case category of the antecedent of a relative clause that is copied onto the subordinate clause. However, this agreement in case by a subordinate clause is not unique to relative clauses.

Any adjoined clause can optionally undergo this kind of agreement, provided that the uninflected nominal within it (whether topic or subject) is coreferential with a nominal in the preceding main clause. Thus, even purposives and rational clauses show this kind of agreement, as illustrated by 117a,b, respectively.

117. a Niya were kun ngithaan, mathuru thaathuru nyithuru.

1 send 2/AC get/F/AC return/F/AC 2/F/AC

'He sent me, to fetch firewood.'

1 2 2

b Ngata netha kun niween, nethadpanu ngimpenadpa.

1 hit 2/AC hit/NF/AC/EV 2/NF/AC

'I hit him, because he hit you.'

1 2 1 2

In summary, we have seen that all the rules of syntax and semantics for restrictive relative clauses in Lardil are needed independently in the grammar of the language.

24.5.5.5 Preposed relative clauses

In the previous sections all the relative clauses were in extraposed position, i.e. they followed the main clause. Let us now consider

relative clauses which are in preposed position, i.e. which precede the main clause:

118. a Nganikin wangal ngithun thapujikan kuparithad, ki ngata wuthur
 RL my 1/GN make/NF 2 1 give/F
 ngimpenthar.

3/F

'I'll give you that (boomerang), which my brother made.'

1 3 2 RL 1

b Ngani ngawa ngithun rathad ki penymed ngithanthar.

RL/2 1/GN spear/NF 1 bite/ADM 2/ADM

'That (dog) which I speared is liable to bite me.'

1 RL 1 2

c Kiin mangarta ngithun miwuthad kun, yuud waa.

RL/2 1/GN care/NF go

'(The kid) which I'm looking after went away.'

RL/2 1

In the preposed relatives, the relativized nominal is in the nominative case just as in the postposed ones. The underlying subjects all show the Genitive case in 118. Other subordinate clauses are possible in preposed position, e.g. conditionals, temporals, and rationals, 119a-c, respectively.

119. a Nyingki karned ngithunad, ngata wunengkur ngimpenthar wernengkur.

1 speak/NG/NF 3/NF 1 give/NG/F 3/F 2/F

'If you don't speak to me, I won't give you food.'

1 3 1 3 2

b Niya wernengad jithad kun, ngata kudi tene kun.

1 2/NF eat/NF 1 see leave

'When/while he was eating (food), I saw and went on.'

1 2

c Niya nethad kun ngimpenad, ngata netha kun niween.

1 hit/NF 2/NF 1 hit 2/AC

'Since he hit you, I hit him.'

1 2 1 2

All these subordinate clauses are restricted to being in the Future or Non-Future tense, just as we saw with extraposed bipartite structures.

24.5.5.6 Antecedent deletion

When the relative clause is preposed, then the antecedent is characteristically deleted, as in 118c. But this follows naturally from the conclusion reached earlier that pronominalization consists of the deletion of a nominal if it is to the right of a coreferential nominal.

A preposed relative clause cannot agree in case with the antecedent, but then neither can a preposed rational, temporal, or condition clause. Apparently then, this type of agreement is restricted to subordinate clauses to the right of the main clause.

Perhaps the most striking thing about a preposed relative clause is that it has exactly the same word order as a topicalized sentence. The relativized nominal begins the clause, just as a topicalized nominal begins the sentence. Now, because the antecedent necessarily follows rather than precedes a preposed relative clause, the structural description for detopicalization is not met by the relativized nominal in this construction. It appears, then, that the word order in preposed relative clauses reveals the configuration that holds prior to the application of detopicalization. Thus I take the form of the preposed relative clause to be confirmation of the hypothesis that topicalization is applicable in the derivation of relative clauses.

24.5.5.7 ki clauses

There is no great motivation for saying that all subordinate clauses of the bipartite type originate either in preposed or postposed position. However, one fact about relative clauses can possibly be explained by generating all of this particular clause type in postposed position. The observant reader will have noticed a peculiarity about sentences 118a,b, namely the presence of the morpheme ki (variously [kɪ], [i]) at the beginning of the main clause. This morpheme, although conceivably derived from the demonstrative kiin 'that', appears uniquely in this sentence type. It is possible that it is a trace left behind when a postposed relative

clause is moved into preposed position.

The demonstrative kiin 'that' has an optional reduced alternant ki, as in 120.

120. a Ngaju thungal kiin?

what thing

'What's that?'

b Ngaju thungal ki? (=a)

If the demonstrative in 120 is dislocated, then the fronted one is always kiin, however a copy, characteristically ki, is left behind:

121. Kiin ngaju thungal ki?

'That, what is it?'

Thus ki in a sentence like 118a,b, could well be a copy left behind by a preposed relative clause. This hypothesis is weak in that there is no apparent reason why ki should begin the main clause, instead of ending it. Perhaps stylistic ordering is responsible. However, since nothing else hinges upon it, I leave this hypothesis without further elaboration.

24.5.5.8

It has been suggested by Ken Hale that a preposed relative clause as in 118a may be ambiguous, between being presupposed and being part of the assertion of the sentence. At this time, I lack the data to confirm or disconfirm this possibility. However, if it is true, then the hierarchy which was constructed in 24.5.5.4 should be modified, so as to allow a free choice between the topic:assertion and the focus:presupposition partitions for the subordinate clause of sentences like this.

24.5.6 Ngadi clauses

Non-terms cannot be relativized. Thus a sentence like 112b is ungrammatical.

However, it is not the case that no relative clause at all can be formed in this instance. There is an alternative available, illustrated by 122. Here, the subordinate clause is in the uninflected tense, and not the Non-Future tense as we might expect. Topicalization of the

relativized nominal is apparently absent. If it were somehow topicalized, we would expect the subject of the relative clause to be in the Genitive form ngithun, but it is instead in the Nominative form ngata. The relativized nominal itself, nyerwii 'place/LC', has been deleted, presumably by pronominalization, since agreement with the case of the antecedent is never permitted in this construction.

122. Karan ngani nyerwe, ngata ngadi ratha kun karnjinin tilanthaad.
 where that place 1 spear 2/AC
 'Where is that place, where I once speared a wallaby?'

1

2

In the respects just described the relative clause of 122 is significantly different from the other relative clauses structures but it does not differ from an ordinary simple sentence. However, there is one distinctive mark in 122 that shows we are dealing with a relative clause: this is the presence of the relative enclitic ngadi. This enclitic morpheme follows the first word of the subordinate clause, regardless of what it might be.

In terms of position in the sentence as a whole, the relative clause formed with the enclitic ngadi does not differ from the other, and so we are probably safe in assuming that all relative clause constructions are of the adjoined kind.

The uninflected tense form of the subordinate clause verb in sentences like 122 is additional confirmation of this. The absence of the non-future inflection is presumably due to Non-Future Tense Deletion, a rule which is restricted to root clauses. If the ngadi type of relative clause is a root clause, then it follows that since it is not the main clause, it must be adjoined.

The type of relative clause illustrated by 122 is rare in Lardil, but it does appear to be an optional variant available quite generally. For example, the relativized nominal in 123a is the subject of its clause, and so is automatically topicalizable. But an optional variant of 123a is 123b with the ngadi construction.

123. a Ngata wiriyathur nganikinkur yadamankur, tenjathad kun (yaraman).
 1 ride/F 2/F run/NF RL/1
 'I'm going to ride that horse, which is running.'
 1 2 RL/1
- b Ngata wiriyathur nganikinkur yaramankur, ngani ngadi yadaman
 that 1
 tenja kun. (=a)
 V

This construction is rare, but nevertheless the only option available for relative clause formation when the nominal to be relativized is a non-term.

While the existence of the relative clause construction using ngadi does perhaps call for a slight modification of my claim that all rules applicable to relative clauses are needed independently, insofar as ngadi is unique to restrictive relative clauses. Nevertheless, this fact does strengthen the argument over-all. This construction is rare, but nevertheless it is the only option available for relative clause formation when the nominal to be relativized is a non-term. That is to say, relative clause formation with ngadi is optional in general, but obligatory precisely in those instances where topicalization or any other focussing device is blocked.

24.5.7 Attracted relative clauses

There is another rare, marginal, relative clause surface structure that appears in Lardil. Sentences 124 illustrate it.

124. a Ngata janijani kun ngithunin rathadpa karnjinin.
 1 seek 1/GN/AC spear/NF/AC 2/AC
 'I'm looking for (the wallaby) which I speared.'
 1 2 1
- b Ngata waangkur Thuwathuwakan kineethad nyedwe.
 1 go/F 1/GN die/NF place
 'I'm going to the place where Thuwathu died.'

The relative clauses in 124, which are both fairly short, are not clearly separated from the main clause, but appear to be embedded in it. Also, there is no overt antecedent of the relative clause. It appears that a short restrictive clause may be attracted into the main clause, replacing the antecedent. This attraction rule can apparently be applied whether the relative clause has undergone agreement with the antecedent (124a) or not (124b).

24.5.8 Conclusion

Once it is accepted that relative clauses, apart from the ngadi type and the marginal type, are no different syntactically and semantically from other subordinate clause types in the adjoined structure, it seems reasonable to question the initial classification which distinguished conditional, temporal, rational, and purpose clauses, as well as restrictive relatives. But if these semantic differences are simply a consequence of the tense and focussing devices, then it could be that it is misleading to set up such a discrete classification. That is to say, while a language like English has distinct subordinating devices, including the very meaning-specific subordinating conjunctions if, when, because, and so on, Lardil on the other hand has a very generalized subordinating device, the adjoined clause.

In view of this, it might be expected that other readings, syntactically distinct as far as English is concerned, could be assigned to adjoined structures, depending on the circumstances. This does seem to be the case, as the examples below illustrate. If a semantic contradiction arises between the clauses, then the English equivalent is an adversative with but (125). Yet there is no special marking necessary in Lardil, although one is obligatory in English.

125. Ngata mara rathur kiinkur karnjinkur, yuud tenja.
 1 spear/F 2/F run
 'I was going to spear that wallaby, but it ran away.'
 1 2

Moreover, the logical connection between the main clause and subordinate clause is variable, and so it is possible for the connection to be

no more than the temporal sequencing signified by conjunction with and in English. Thus in the case of sentences like 126a,b, both the purposive use and a weaker meaning are possible, as indicated.

126. a Ngata kuparithur maarkur, ngithun thapu rathur karnjinkur.

1 make/F 2/F my 2 spear/F 2/F

'I'll make a spear so that my brother can spear a wallaby.'

1 2 1 2

'I'll make a spear and then my brother will spear a wallaby.'

b Ngata mulinathur tumpuyikur, rarwamarithur.

1 crush/F 2/F pipe/put/F

'I'll crush the tobacco (in my fingers) and/in order to put it

1 2

in the bamboo pipe.'

It does not seem to be accurate to call these different English glosses different readings (in the technical sense) of the Lardil sentence. Rather, we are dealing with a situation where the one language (English) must be very specific in expressing the logical connection between clauses, and the other (Lardil) expresses the same situations by quite general means, namely the tense and focussing apparatus. The theory of language must provide for this kind of variation among languages, as well as for the very extensive and restrictive universals.

24.6 Concord

In a simple sentence which has undergone Tense Deletion, the subject is nominative, and the other nominals are assigned case according to grammatical relations. The inflectional category assigned to any given nominal distributes onto each constituent of that nominal. For example, each constituent of the direct objects in the sentences 127 below show the accusative case -in, -n. In the sentences 128, each constituent of the indirect object takes -mar. In 129, each constituent of the chomeur shows the genitive case -ngan, -kan. In 130, each constituent of the predicate nominal shows the Privative suffix -wed or the Locative suffix -nge, -e, -V. That is to say, there is in Lardil a requirement that

each dependent of a nominal take the same set of inflectional categories as the governing nominal. I refer to this as Concord.

127. a Ngajarta yuud netha ngithunin ngawun.
 1 kill my/AC dog/AC
 'Somebody killed my dog.'
 1 2
- b Ngajarta matha kun nganikinin nyijin?
 1 take that/AC 2/AC
 'Who took that firewood?'
 1 2
- c Kara nyi wirima kun nganikinin karnjinin?
 Q 1 take that/AC 2/AC
 'Did you take that wallaby?'
 1 2
128. a Ngata wutha kun wangalkin ngithunmari muthamari thapujimari.
 1 give 2/AC my/put big/put brother/put
 'I gave a boomerang to my big brother.'
 1 2
- b Ngata kupari kun kiin^oin wangalkin ngithunmari kanthamari.
 1 make that/AC 2/AC my/put father/put
 'I made that boomerang for my father.'
 1 2
- c Ngata were kun wiriin kiinmari karnanmari pidngenmari.
 1 2/AC that/put tall/put woman/put
 'I sent food to that tall woman.'
 1 2
129. a Nganta, nyingki jempekiraanymed kiinngan yadamannan.
 away 1 kick/R/ADM that/GN C/GN
 'Away! You might be kicked by that horse.'
 1 C

- b Nganta, nyingki mirntilnyaanymed muthakan thungalngan.

1 crush/R/ADM big/CN C/GN

'Away! You might be crushed by a big tree.'

1 C/GN

130. a Nyedwe niwenwed jawed.

place his/PRV track/PRV

'The place is devoid of his tracks.'

- b Ngata maltha ngimpenwed rawed.

L not your, PRV custom/PRV

'I lack your customs.' i.e. 'I am not like you.'

- c Kiin mangarta ngithuunge parnjiparnjii mirnkemirke tilanthaad.

1 my/LC hat/LC sit before

'That child sat on my hat before.'

1

- d Tawar tuuruu thungale.

1 hollow/LC tree/LC

'A goanna is in the hollow tree.'

1

Concord is relevant in other circumstances as well. If a tense category is present in a clause, then that tense appears not only on the verb, but also distributes to its dependents, excepting only the subject. For example, the Future distributes by concord in 131 and the Non-Future does so in 132. These categories further distribute to the dependents of the verb dependents.

131. a Ngajarta nethur ngithunkur ngawur.

1 kill/F my/F 2/F

'Somebody will kill my dog.'

1

2

- b Ngajarta mathur nganikinkur nyithur?

1 get/F that/F 2/F

'Who will get that firewood?'

1

2

- c Kara nyi wirimathur nganikinkur karnjinkur?

Q 1 take/F that/F 2/F

'Will you take that wallaby?'

1

2

132. a Tiinta nethad kun ngithunad ngawungad.

TP/1 kill/NF my/NF 2/NF

'This man (is the one who) killed my dog.'

TP/1

2

- b Ngajarta mathad kun nganiknad nyuthad?

1 get/NF that/NF 2/NF

'Who got that firewood?'

1

2

- c Kiin mangarta ngithunad parnjiparnjingad mirnkemirnkethad

TP/1 my/NF hat/NF sit/NF

tilanthaad.

'That child (is the one who) sat on my hat before.'

TP/1

In general, subordinate clauses inflect for Future or Non-Future tense, or Infinitive. Both Future (133) and Non-Future (134) distribute by Concord. There is also distribution of the Infinitive category onto dependent nominals; for nouns, the infinitive suffix is morphologically identical to the future tense suffix, 135.

133. a Ngata yudwudithur rathur kiinkur karnjinkur.

1 try/F spear/F that/F 2/F

'I'll try to spear that wallaby.'

1

2

- b Ngithun thapu titha kun wangalkur kuparithur.

my 1 sit 2/F make/F

'My brother sat down to make a boomerang.'

1

2

copied before Concord obliterates it in the main clause.

136. Tiin wangal tenee kun ngithunin thapujin.

1 V/R my/AC C/AC

'This boomerang was left by my brother.'

1 C

137. a Ngata kupari kun tiinin wangalkin.

1 make this/AC 2/AC

'I made this boomerang.'

1 2

b Ngata mirnkemirnke kun tiinnge muthaa parngaa.

1 sit this/LC big/LC rock/LC

'I sat on this big rock.'

1

138. Ngata kudithad kamadngad, ngata mirntinengkur.

1 see/NF 2/NF 1 step/NG/F

'If I see a stonefish, I won't step on (it).'

1 2 1

139. a Ngata kudi kun ngithunin kirtikungungin₁ tenjajid kun,

1 watch my/AC 2/AC run/INF

jempékiraanymeda yadamannganin.

kick/AD/AC C/GN/AC

'I watched my little brother₁ run, lest (he₁) be kicked by a horse.'

b Ngata werethur kiinkur wangalkur₁, ngimpenin kuparithadpa.

1 throw/F 2/F 1/GN/AC make/NF/AC

'I'll throw the boomerang you made.'

1 2

It seems as though Concord applies to its own output, beginning with the topmost governor (the verb) and so on down to, ultimately, the bottom governor. For example, a category assigned by Concord to the nominals of a sentence will then distribute to the dependents of those nominals.

140. Ngata werethur niwenthar kungungkur tangkar ...

1 send/F she/F sister/F person/F

'I'll send my sister (person) ...'

1 2/F

Concord extends to all dependents, including each member of a noun compound (141). However, once a category is assigned to a possessor, it does not distribute to the dependents of that possessor (142).

141. Ngata kudi kun turin-wunin.

1 see 2/AC

'I saw the clouds (excrement/AC- rain/AC).'

142. Ngata kudi kun kiinngan- (*in) pidngennnganin karnanin kampinin.

1 that/GN/(*AC) woman/GN/AC tall/AC 2/AC

'I saw that woman's tall son.'

1 2

Dan Kahn (1973) has proposed to account for this in a derivational framework by applying Concord cyclically. By the principle of strict cyclicity, it is then impossible for any category to distribute within a lower, and already processed, node. There are two difficulties with Kahn's proposal, in the material already mentioned above. Firstly Concord would have to go inside of cycles that presumably have already been processed, e.g. noun compounds. Secondly, Concord could not be a cyclic rule, because it must follow Tense Deletion, which would be post-cyclic. If Concord were applied nevertheless according to cyclic principles, then it would have to be in a separate cycle, following post-cyclic rules.

Another fact which has to be accounted for is that there is some fluctuation, from speaker to speaker, in distributing the accusative in a subordinate clause, as illustrated by 139. For some speakers, Non-Future subordinate clauses will not undergo Concord with respect to the accusative, as in 143 below. However, Future subordinate clauses always undergo Concord.

143. Ngata netha kun kiinin maanangan, nethadbanu ngimpenad.

1 hit 2/AC hit/NF/AC/EV 2/NF

'I hit that child, (who) hit you.'

1 2 2

I suggest that it is not some universal constraint at work here, such as strict cyclicity or the equivalent, but rather a language-particular constraint that varies for individual speakers: namely, once Concord has applied to the dependents of some governor, it cannot then apply to the dependents of those dependents. For all speakers, Concord operates freely with dependents of a verb, and is blocked from applying to the dependents of a possessor. For some but not all speakers, the constraint extends to categories introduced into all clauses, i.e. the accusative.

More information is really needed about the workings of Concord. For example, as the sentences in 144 show, the tense of a superordinate clause can distribute onto a subordinate clause (parenthesized in these examples). This is not a general phenomenon, and I have no idea why it has happened in these sentences. Possibly, it is due to additional fluctuation in the domain of the constraint on Concord mentioned in the preceding paragraph. (In 144a, the underlined non-future is replacing the expected future, while in 144b, the underlined future is replacing the anticipated infinitive.)

144. a Nyingki waangad(ruulithad kilangad), nyingki kepeenengkur.

1 go/NF play/NF beach/NF 1 find/R/NG/F

'If you go (to play on the beach), you won't be found.'

1

1

b Ngata waangkur ra-kudithur niwenthar (jithuru wurtaljiwuru).

1 go/F watch/F 2/F eat/F/AC 2/F/AC

'I'll go to watch him (eat meat).'

1

2

2

24.7 Footnotes

1.

114. c Ngata kudithad kiinad maaliyangad, ngata mara jidmathur (maaliyar).

1 see/NF 2/NF 1 pick/F 2/F

'If I had seen that swamp-turtle, I would have picked (it) up.'

1

2

2

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