

THE SYNTAX OF COMPLEX SENTENCES
IN SINHALESE

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by

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ABSTRACT

This thesis discusses the syntax of complex sentences in Sinhalese within the framework of a generative transformational theory of grammar as outlined in Chomsky (1957), and since developed by him and others. The particular model for this study is the 'Standard Theory' of Chomsky (1965).

The Introduction outlines the theoretical framework of the study, and gives a brief description of Sinhalese. The particular variety of Sinhalese discussed is specified, and an account of the linguistic investigation of Sinhalese given.

Chapter 2 presents a phrase structure grammar capable of generating simple sentences in Sinhalese.

Chapter 3 introduces one of the principal mechanisms of complex sentence formation, relativisation. It is demonstrated that the processes of relativisation suffice to derive several types of nominal modifiers.

Chapter 4 introduces another major recursive mechanism, complementation. Several types of complement constructions are discussed, and the majority are shown to be NP complements. A few types appear to be VP complements, but conditions are suggested under which they could be considered NP complements.

Chapters 5 to 8 examine a series of special constructions. All except one are shown to be derived from complex underlying

structures, and it is demonstrated that the general principles of complementation can handle all these. It is argued that pseudo-cleft sentences however, are derived from underlying simple sentences. Chapter 5 deals with modal constructions, Chapter 6 with involitive sentences, Chapter 7 with causative sentences, and Chapter 8 with sentences of emphatic assertion and negation, and pseudo-cleft constructions.

Chapter 9 examines a third major recursive mechanism, conjunction.

Chapter 10 introduces adverbials, and examines tentatively the suggestion that few additional rules are required to account for such constructions.

Finally, Chapter 11 discusses, again tentatively, a rather different type of complex sentence, comparative constructions.

CONTENTS

	<u>Page</u>
Abstract	2
Acknowledgements	6
Abbreviations and Symbols	8
CHAPTER 1	
Introduction	10
CHAPTER 2	
Simple Sentences in Sinhalese	47
CHAPTER 3	
Relativisation	96
CHAPTER 4	
Complement Constructions	136
CHAPTER 5	
Modal Constructions	172
CHAPTER 6	
Involitive Sentences	188
CHAPTER 7	
Causative Sentences	208
CHAPTER 8	
Pseudo-Cleft Sentences and Emphatic Assertion and Negation	224

	<u>Page</u>
CHAPTER 9	
Conjoining Processes	242
CHAPTER 10	
Adverbials	286
CHAPTER 11	
Comparative Constructions	323
APPENDIX	366
Part I	368
Part II	370
Part III	371
Bibliography	379

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ABBREVIATIONS AND SYMBOLS

ACC	:	accusative
Adj	:	adjective
Adv	:	adverbial
Anim	:	animate
CAUS	:	causative
Def	:	definite
Dem	:	demonstrative
Det	:	determiner
EMPH	:	emphasis
FEM	:	feminine
Hum	:	human
Imp	:	imperative
Indef	:	indefinite
INVOL	:	involitive
N	:	noun
Neg	:	negative
NP	:	noun phrase
OBL	:	obligatory
OPT	:	optional
Postp	:	postposition
Post S	:	post sentence
Pred	:	predicate
Prt	:	particle
Q	:	question
S	:	sentence
SC	:	structural change
SD	:	structural description
T	:	transformation
V	:	verb

VP	:	verb phrase
$X \longrightarrow Y$:	X is rewritten as Y
$X \Longrightarrow Y$:	X is transformed into Y
$X + Y$:	X and Y are concatenated
$X - Y$:	X and Y are concatenated (confined to transformational rules)
(X)	:	X is an optional element
$\left\{ \begin{array}{c} X \\ Y \end{array} \right\}$:	X or Y is selected
$[X]_Y$:	X is a constituent belonging to the category Y
$\left[\begin{array}{c} X \\ +Y \end{array} \right]$:	X contains the feature Y
$[+Y]$:	Y is a positively specified feature
$[-Y]$:	Y is a negatively specified feature
\pm	:	plus or minus
X , Y	:	cover symbols for all possible elements including zero
\emptyset	:	zero (used in transliteration)
0	:	zero (used in transformational rules)
*	:	ungrammatical construction
?	:	questionable construction
<	:	less than
\geq	:	greater than or equal to

CHAPTER 1

INTRODUCTION

The subject of study in this thesis is the syntax of complex sentences in Sinhalese. Complex sentence formation in Sinhalese is discussed here within the framework of a generative transformational theory of grammar as outlined in Chomsky's 'Syntactic Structures', (1957), and developed and expanded by him and many others over the past sixteen years. In particular, this study takes as its model the 'Standard Theory' formulated in Chomsky's 'Aspects of the Theory of Syntax' (hereafter 'Aspects'), (1965).¹ Research since 1965 has led progressively to a questioning of Standard Theory, and various proposals embodying revisions of the model have now been put forward.² Relatively minor revisions are proposed in the work of the 'interpretive semanticists',

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1. The term 'Standard Theory' is used with reference to the theory of grammar outlined in 'Aspects' in Chomsky (1969) and Bach (1971a). Postal (1971) uses the term 'Classical Transformational Theory'.
 2. In their Introduction, Jacobs and Rosenbaum (1970) sketch developments in transformational theory since Chomsky (1965), relating the articles in the volume to different stages of these developments. In the Overview to Part II (pp. 157-182) of Steinberg and Jakobovits (1971), H. Maclay discusses the same developments more fully.

including Chomsky, Jackendoff, Dougherty, Akmajian etc.³ More drastic changes are envisaged in the 'Case Grammar' of Fillmore,⁴ and in the 'generative semantics' of Lakoff, McCawley, Ross etc.⁵ The present study deals largely with the less problematic and controversial areas of complex sentence formation, and hence a grammatical model based on Standard Theory suffices for this purpose. Where the data under consideration necessitates a departure from this model, this is mentioned in the relevant section, as for instance, in the formulation of the Pseudo-Cleft rule in Chapter 8.

J. Lyons defines the values of the terms 'generative' and 'transformational' as follows:

"By Chomsky and his followers the term 'generative' is usually understood to combine two distinguishable senses: (i) 'projective' (or 'predictive'); and (ii) 'explicit' ('formal' vs. 'informal') . . .

It was first introduced in the sense of 'projective' (or 'predictive'): to refer to any set of grammatical rules which, explicitly or implicitly, described a given corpus of sentences by 'projecting' them upon, or treating them as a 'sample' of, a larger set of sentences. A grammar of this kind is 'predictive' in that it establishes as grammatical, not only 'actual' sentences, but also 'potential' sentences . . . most of the grammars that have ever been written throughout the history of linguistics are generative

-
3. Chomsky (1969) brings together a number of cases Standard Theory is incapable of handling, and argues for a modified version of Standard Theory in which not merely deep structures, but also some aspects of surface structures (and perhaps intermediate structures as well) are relevant to semantic interpretation.
 4. See especially C.J. Fillmore (1966), (1968a), (1969) and (1971) for a formulation of the theory of Case Grammar.
 5. See especially G. Lakoff (1971).

in this first sense of the term . . .

But the term 'generative' was subsequently used in this section in a rather particular sense of 'explicit'. This approximates to, and indeed derives from, one of the senses in which the term 'generate' is employed in mathematics . . . This second, more or less mathematical, sense of the term 'generate' presupposes, for its applicability to grammar, a rigorous and precise specification of the nature of the grammatical rules and their manner of operation: it presupposes the formalisation of grammatical theory".⁶

"If we use the term in a general and rather informal sense, rather than in the particular sense in which it is defined in any one theory, we can say, quite reasonably, that the 'deeper connexions' between sentences which 'cut across the surface grammar' are transformational relationships: this is a perfectly legitimate use of the term 'transformational'. Many of these transformational relationships between sentences are well-recognised in traditional grammar; but it is only recently that linguists have made any progress in accounting for them in an explicitly generative framework. Any grammar that claims to assign to each sentence that it generates both a deep-structure and a surface structure analysis and systematically to relate the two analyses is a transformational grammar (whether it uses the label or not)".⁷

In the preface to 'Aspects', Chomsky discusses the generative function of a grammar as follows:

"The idea that a language is based on a system of rules determining the interpretation of its infinitely many sentences is by no means novel. Well over a century ago, it was expressed with reasonable clarity by William von Humboldt in his famous but rarely studied introduction to general linguistics (Humboldt, 1836). His view that a language 'makes infinite use of finite means' and that its grammar

6. J. Lyons (1968), pp. 155-157.

7. J. Lyons (1968), p. 248.

must describe the processes that make this possible is, furthermore, an outgrowth of a persistent concern, within rationalistic philosophy of language and mind, with this 'creative' aspect of language use. What is more, it seems that even Panini's grammar can be interpreted as a fragment of such a 'generative grammar', in essentially the contemporary sense of this term.

Nevertheless, within modern linguistics, it is chiefly within the last few years that fairly substantial attempts have been made to construct explicit generative grammars for particular languages and to explain their consequences".⁸

Thus, a generative transformational grammar is characterised by its concern for formulating a relatively small number of rules which nevertheless, account for the infinitely large number of new sentences possible within a given language. R.B. Lees summarises the aim of his study of English nominalisations as follows:

"Thus, if we are successful, we shall have shown how a reasonably compact set of formal specifications provides for the generation of infinitely many new denotative and connotative expressions in English sentences".⁹

In general, a generative grammar of any language is motivated by similar aims. Chomsky comments on the formalisation typical of generative grammar as follows:

"The search for rigorous formulation in linguistics has a much more serious motivation than mere concern for logical niceties or the desire to purify well-established methods of linguistic analysis. Precisely constructed models for linguistic structure can play an important role, both negative and positive, in the process of discovery itself. By pushing a precise, but inadequate formulation to an unacceptable conclusion, we can often expose the exact source of this inadequacy, and consequently, gain a deeper understanding of the linguistic data. More positively, a formalised

8. N. Chomsky (1965), Preface p. v.

9. R.B. Lees (1960), Preface p. xxvi.

theory may automatically provide solutions for many problems other than those for which it was explicitly designed".¹⁰

Chomsky (1957) suggests that a transformational component in a grammar can be justified for two reasons. First, it is justified where a language lies outside the range of a phrase structure (constituent structure) analysis. Second, he suggests that it is justified where a phrase structure analysis can apply to a language only clumsily, constructing a complex and unrevealing grammar, while the incorporation of transformational rules constructs a simpler and more revealing grammar. He says:

"When transformational analysis is properly formulated we find that it is essentially more powerful than description in terms of phrase structure, just as the latter is essentially more powerful than description in terms of finite state Markov processes that generate sentences from left to right. In particular, such languages as (10iii) which lie beyond the bounds of phrase structure description, as we have formulated it, can be derived transformationally. It is important to observe that the grammar is materially simplified when we add a transformational level, since it is now necessary to provide phrase structure directly only for kernel sentences - the terminal strings of the $[\Sigma', F]$ grammar are just those which underlie kernel sentences. We choose the kernel sentences in such a way that the terminal strings underlying the kernel are easily derived by means of a $[\Sigma', F]$ description, while all other sentences can be derived from these terminal strings by simply storable transformations. We have seen . . . several examples of simplifications resulting from transformational analysis. Full-scale/syntactic investigation of English provides a great many more cases".¹¹

Within this general framework of generative transformational

10. N. Chomsky (1957), Preface p. 5.

11. N. Chomsky (1957), Ch. 5 p. 48.

grammar, the particular model for this study is the Standard Theory outlined in 'Aspects'. The special properties of Standard Theory are summarised below.

"Thus the syntactic component consists of a base that generates deep structures and a transformational part that maps them into surface structures. The deep structure of a sentence is submitted to the semantic component for semantic interpretation, and its surface structure enters the phonological component and undergoes phonetic interpretation. The final effect of a grammar, then, is to state how a sentence is interpreted. This relation is mediated by the syntactic component of the grammar, which constitutes its sole 'creative' part.

The branching rules of the base (that is, its categorial component) define grammatical functions and grammatical relations and determine an abstract underlying order; the lexicon characterises the individual properties of particular lexical items that are inserted in specified positions in base Phrase-markers. Thus when we define 'deep structures' as 'structures generated by the base component', we are, in effect, assuming that the semantic interpretation of a sentence depends only on its lexical items and the grammatical functions and relations represented in the underlying structures in which they appear".¹²

Chomsky defines 'grammatical functions' like 'subject' etc. in terms of relations holding between 'grammatical categories' like 'noun phrase' (hereafter NP), 'verb phrase' (hereafter VP), 'sentence' (hereafter S) etc.

"The notion 'Subject', as distinct from the notion 'NP', designates a grammatical function rather than a grammatical category. It is, in other words, an inherently relational notion. We say, in traditional terms, that in (1) [sincerity may frighten the boy] sincerity is an NP (not that it is the NP of the sentence), and that it is (functions as) the Subject-of the sentence (not that it is a Subject). Functional

12. N. Chomsky (1965), Ch. 3 pp. 135-136.

notions like 'Subject', 'Predicate' are to be sharply distinguished from categorial notions such as 'Noun Phrase', 'Verb', a distinction that is not to be obscured by the occasional use of the same term for notions of both kinds . . . It is necessary only to make explicit the relational character of these notions by defining 'Subject-of' for English, as the relation holding between the NP of a sentence of the form $NP \wedge Aux \wedge VP$ and the whole sentence, 'Object-of' as the relation between the NP of a VP of the form $V \wedge NP$ and the whole VP, etc."¹³

Hence grammatical functions are not directly represented in deep structures, but are derivable from the more general definitions below.

Subject-of	:	[NP, S]
Predicate -of	:	[VP, S]
Direct Object-of	:	[NP, VP]
Main Verb-of	:	[V, VP]

For Sinhalese too, the term 'subject of a sentence' refers to the NP directly dominated by S in a given phrase marker, 'object of a sentence' to the NP directly dominated by VP, and 'main verb of a sentence' to the V directly dominated by VP etc.

In Standard Theory the recursive property of a grammar is attributed to the base component, the transformational component being purely interpretive.

"The infinite generative capacity of a grammar arises from a particular property of these categorial rules, namely that they may introduce the initial symbol S into a line of derivation. In this way, the rewriting rules can, in effect, insert base Phrase-markers into other base Phrase-markers, this process being iterable without limit".¹⁴

13. N. Chomsky (1965), Ch. 2 pp. 68-69.

14. N. Chomsky (1965), Ch. 3 p. 142.

The phrase structure rules for Sinhalese formulated in Chapter 2 allow only for the generation of simple sentences, and hence do not provide for recursion. The additional phrase structure rules given in Chapter 3 (6), Chapter 4 (14), and Chapter 9 (21) and (34) however, introduce the initial symbol S into a line of the derivation, and thus provide for recursion.

Standard Theory also incorporates the concept of the 'transformational cycle'.

" . . . we construct a transformational derivation by applying the sequence of transformational rules sequentially, 'from the bottom up' - that is, applying the sequence of rules to a given configuration only if we have already applied it to all Phrase-markers embedded in this configuration".¹⁵

Chomsky (1969) summarises the essential properties of Standard Theory as follows:

"Observe that a standard theory specifies, for each sentence, a syntactic structure $\Sigma = (P_1, \dots, P_i, \dots, P_n)$ (where P_i is the deep, and P_n the surface structure), a semantic representation S, and a phonetic representation P. It asserts, furthermore, that S is determined by P_i and P by P_n under the rules of semantic and phonological interpretation, respectively. More generally, the theory is 'syntactically based' in the sense that it assumes the sound-meaning relation (P, S) to be determined by Σ ".¹⁶

The system of grammatical transformations is said to determine an infinite class K of finite sequences of phrase-markers, each

15. N. Chomsky (1965), Ch. 3 p. 143.

16. N. Chomsky (1969), p. 185.

such sequence P_1, \dots, P_n meeting the following conditions:

- " (i) P_n is a surface structure.
- (ii) each P_i is formed by applying a certain transformation to P_{i-1} in a way permitted by the conditions on grammatical rules.
- (iii) there is no P_0 such that P_0, P_1, \dots, P_n meets conditions (i) and (ii)".¹⁷

Lexical transformations are defined as follows:

"a lexical transformation associated with the lexical item I maps a phrase-marker P containing a substructure Q into a phrase-marker P' formed by replacing Q by I ".¹⁸

Post-lexical structures, which are the 'deep structures' of 'Aspects', are thus defined by the following condition:

"given (P_1, \dots, P_n) in K , there is an i such that for $j < i$, the transformation used to form P_{j+1} from P_j is lexical, and for $j \geq i$, the transformation used to form P_{j+1} from P_j is nonlexical".¹⁹

Deep structures, in such a theory, are therefore held to meet several conditions.

"First, they determine semantic representation. Second, they are mapped into well-formed surface structures by grammatical transformations (without any subsequent insertion of lexical items). Third, they satisfy the set of formal conditions defined by the base rules; in particular, the rules of the categorial component define the grammatical functions and the order of constituents, and the contextual features of lexical entries determine how lexical items can be entered into such structures".²⁰

17. N. Chomsky (1969), pp. 183-184.

18. N. Chomsky (1969), p. 184.

19. N. Chomsky (1969), p. 184.

20. N. Chomsky (1969), p. 185.

The grammatical model constructed here to handle complex sentences in Sinhalese is, in general, based on such a theory. Chomsky (1969) discusses a number of cases in which information not represented in deep structures seems necessary for semantic interpretation. In order to accommodate these facts, he proposes a revision of Standard Theory.

"These cases suggest that the standard theory is incorrect, and that it should be modified to permit these rules. These considerations may not affect the weaker hypothesis that the grammatical relations represented in deep structure are those that determine semantic interpretation. However, it seems that such matters as focus and presupposition, topic and comment, reference, scope of logical elements, and perhaps other phenomena, are determined in part at least by properties of structures of K other than deep structures in particular, by properties of surface structure. In short, these phenomena suggest that the theory of grammar should be reconstructed along the lines intuitively indicated in (113), using the notation of the earlier discussion:

- (113) base : (P_1, \dots, P_i) (P_1 the K-initial, P_i the post-lexical (deep) structure of the syntactic structure which is a member of K)
- transformations : (P_i, \dots, P_n) (P_n the surface structure;
 $(P_1, \dots, P_n) \in K$)
- phonology : $P_n \longrightarrow$ phonetic representation
- semantics : $(P_i, P_n) \longrightarrow$ semantic representation
 (the grammatical relations involved being those of P_i , that is, those represented in P_1) ".²¹

In this study, as noted in Chapter 8, sentences derived by

21. N. Chomsky (1969), p. 213.

the Pseudo-Cleft transformation are examples that cannot be handled by Standard Theory, and hence, necessitate a modified theory of the sort proposed above.

Since this thesis deals with the syntax of complex sentences in Sinhalese, neither intonation and other rules of the phonological component, nor the rules of the semantic component are discussed. A study of intonation, in particular, might have proved revealing at various points. Differences in intonation seem to distinguish the restrictive and appositive relative phrases discussed in Chapter 3. A study of intonation might have been helpful in determining the factors governing the acceptability of sentences like (80)-(82) in Chapter 3, in contrast to the questionability of the similar sentences (74)-(76). Such a study is beyond the scope of this thesis, but an examination of intonation patterns in Sinhalese, which has not yet been undertaken, would be a welcome contribution to linguistic research in Sinhalese.²²

A study of complex sentence formation is of particular interest within a generative transformational framework of the type outlined above. In particular, this thesis attempts to formulate a relatively small set of rules that will nevertheless account for the infinitely many new sentences possible in Sinhalese. The recursive

22. de Abrew (1963) comments informally on intonation in several instances, but no full study has yet been undertaken.

phrase structure rules introduced in Chapters 3, 4 and 9 are the specific mechanisms that permit complex sentence formation. These introduce the mechanisms of relativisation, NP complementation, and coordinate conjunction. The term 'complex sentence' is used essentially in the sense familiar in transformational literature, which is defined below.

" . . . any sentence that is generated by a group of rules, at least one of which contains the initial symbol in the right-hand side is a complex sentence; all other sentences are simple ".²³

This use of the term differs from its use in traditional western grammars. With respect to the latter, (1) below is a 'simple' sentence, (2) a 'complex' sentence, and (3) a 'compound' sentence. In the sense in which the term 'complex sentence' is used here however, it applies to all three sentences. (For a demonstration of how (1)-(3) are derived from complex rather than simplex underlying structures, see the analysis of Ch. 3 (40), Ch. 4 (1) and Ch. 9 (3)).

- (1) podi laməya aḥḍəṇəvaa
 'small' 'the child' 'is crying'

(The small child is crying.)

- (2) padma aḥḍəṇə ekə pudumayi
 'Padma- 'crying' 'thing' 'is surprising'
 girl's
 name in Sinhalese'

(It is surprising that Padma is crying.)

23. J. Lyons (1968), Ch. 6 p. 225.

- (3) padma aṁḍenevaayi bat kanevaayi
 'Padma' 'is crying-and' 'rice' 'is eating-and'

(Padma is crying and eating her rice.)

Sinhalese, which is spoken by the majority of the population in Ceylon (or Sri Lanka, as it has been known since 1972), belongs to the Indic branch of Indo-Iranian, which in turn belongs to the larger family of languages, Indo-European. W.A. Coates (1972) assigns Sinhalese further to the Indian Ocean subfamily of modern Indo-Aryan languages. He distinguishes three other subfamilies, the Peninsular subfamily, comprising languages spoken in northern and central India and in Pakistan; the Dardic subfamily, comprising languages spoken north of the Himalayas; and Romany, comprising dialects spoken by gypsies in many parts of the world. He classifies Sinhalese, and Maldivian, spoken in the Maldives Islands and on the island of Minicoy, which is part of India, as the only members of the Indian Ocean subfamily.

In this thesis, I examine Colloquial Sinhalese, which can be distinguished at all levels from formal or 'Literary' Sinhalese. M.W.S. de Silva (1967) discusses the divergence between written and spoken forms of the language, tracing the historical developments to which this divergence can be attributed. He comments as follows on the distinction between the two forms:

"The written language - the language of the press and literature - is different from all forms of the spoken language . . . The written language is, nonetheless, regarded as the

'correct' language, and school grammars are designed to teach this version over a period of five or six years. Although every reader can understand the literary grammar, not everyone can reproduce it according to the accepted norm: it requires a systematic study".²⁴

J.W. Gair (1968) also takes as the subject of his study these two major functional varieties of Sinhalese. He discusses some of the major differences in the morphology, syntax, vocabulary and phonology of the two varieties, and uses varying combinations of these major differentiating features to characterise other sub-varieties of Sinhalese, e.g. the language used in some children's books and readers, public speaking, radio talks and lectures, sermonising, some instances of letter writing etc. He comments on the two major varieties as follows, relating them to C.A. Ferguson's use of the term 'diglossia'.²⁵

"Sinhalese, as currently used in Ceylon, exhibits the kind of distinction between major functional varieties for which Ferguson's term diglossia has been generally accepted . . .

24. M.W.S. de Silva (1967), p. 6.

25. He refers in particular to Ferguson's definition of the term 'diglossia':

"a relatively stable language situation in which, in addition to the primary dialects of the language (which may include a standard or regional standards) there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or in another speech community, which is learned largely by formal education and is used for most written and formal spoken purposes, but is not used by any sector of the community for ordinary conversation".

C.A. Ferguson (1959), p. 435.

First, there is the language used by everyone, at all social levels, educated and uneducated alike, for all normal face-to-face conversation. While there are recognisable sub-varieties, they all share a large common core of basic structural features so that they together constitute one major variety: Colloquial Sinhalese .

Distinct from Colloquial Sinhalese is the language of virtually all written materials, ranging from newspapers and magazines through official documents and learned journals to imaginative literature. Despite sub-varieties showing a wide range of surface divergence, there is a shared set of structural features which serve to characterise another major variety. This may be called Literary Sinhalese providing that the term is not taken to imply a necessary connection with literature per se. Literary Sinhalese may also be heard in some public speaking and some radio programming on Radio Ceylon, including news broadcasting and station breaks, but it is fundamentally a written variety, likely, even when spoken, to have been composed beforehand. There are people capable of impromptu speaking in it without violating its conventions, but they too would use it only on formal occasions. It is no one's first language, but generally acquired within some formal learning situation".²⁶

The earliest extant literary work in Sinhalese dates back to about the ninth century A.D., while lithic records extend considerably further back than this. The earliest extant grammar of the language is the 'Sidat Sangarawa', written about the thirteenth century A.D., and regarded as the classical, authoritative grammar of the language. Most subsequent grammatical studies of the language, including some of those of the present century, have, to a large extent, drawn upon this work. In the present century however, Sinhalese has been subject to considerable modern linguistic investigation. Much of this investigation has been historical, but a considerable

26. J.W. Gair (1968), pp. 1-2.

amount of descriptive work has also been undertaken. Most of this work however, has taken Literary Sinhalese as its subject.

Although passing comments on the colloquial language are included in some of these works (e.g. Geiger (1938) includes a brief, but interesting section on the colloquial verb), Colloquial Sinhalese itself was not subject to any full-scale examination until recently. de Silva (1957), de Abrew (1963), and Kekulawala (1964) all provide in their Introductions, a full account of the history of linguistic investigation of the Sinhalese language up to this point.

M.W.S. de Silva's thesis, 'The Verbal Piece in Colloquial Sinhalese : A Phonological Study', (1957), which is the first full-scale examination of the colloquial language, is also an attempt to employ modern linguistic techniques for the purpose. In the sixteen years following his pioneer work however, a sizeable volume of research into Colloquial Sinhalese has accumulated. Both de Silva's thesis and that of S.L. Kekulawala, 'The Phonology of the Noun in Colloquial Sinhalese', (1964), discuss the phonology of the colloquial language in terms of prosodic phonology. K.K.D. de Abrew's 'A Syntactical Study of the Verbal Piece in Colloquial Sinhalese', (1963), discusses morphology, with special reference to that of the verb, and subsequently, the syntax of the verbal piece, in structuralist terms. D.D. de Saram's 'The Nominal in Colloquial Sinhalese', (1964), which I have not had the opportunity of reading, is another work in this field.

B.S.S.A. Wickramasuriya's 'The Nominal Phrase in Sinhalese

and its Bearing on Sinhalese English', (1965), is based on the speech of the writer in the register appropriate to slow-colloquial and semi-formal discourse.²⁷ This variety of language is however, distinct from the literary variety, and may be grouped with Gair's larger functional variety, 'Colloquial'. Wickramasuriya provides an exceptionally thorough examination of the morphology of Sinhalese, and then discusses the syntax of the nominal phrase in particular, later assessing its bearing on 'Sinhalese English'. His study too, is largely in structuralist terms, but as demonstrated below, he shows an interest in the transformational derivation of nominal phrases. K.N.O. Dharmadasa (1967), 'Spoken and Written Sinhalese : a Contrastive Study', and I.P. Jayasekera (1970), 'Reduplication in 'Sinhalese' again discuss aspects of the colloquial language. J.W. Gair (1970), 'Colloquial Sinhalese Clause Structures' is a quite comprehensive study of syntactic patterns in Colloquial Sinhalese. He brings together a large and interesting body of data, discussing it within a 'constructional - transformational' framework. Finally, R.P.T. Jayawardana (1971), 'Case in Sinhalese', makes a particularly interesting examination of this subject within the framework of C.J. Fillmore's theory of Case Grammar. Working within an explicitly transformational framework, Jayawardana discusses several significant areas of Sinhalese syntax. He distinguishes

27. Wickramasuriya uses the term 'register' in the sense of Halliday, McIntosh and Stevens (1964), Ch. 4 p. 77.

'Spoken' from 'Colloquial' Sinhalese, and bases his study on the former. Again, as in the case of Wickramasuriya, this variety of the language is distinct from the literary variety, and may be grouped with the larger functional variety 'Colloquial'.

In addition, a number of papers, principally by de Silva, and Gair, have examined more specific areas in Colloquial Sinhalese. Some of these are, de Silva (1958), 'Gender in Colloquial Sinhalese'; Coates and de Silva (1960), 'The Segmental Phonemes of Sinhalese'; de Silva (1960), 'Verbal Categories in Spoken Sinhalese'; de Silva (1961), 'Nasalisation in the Verbal Endings in Spoken Sinhalese'; de Silva (1963), 'A Phonemic Statement of the Sinhalese Vowels [e] [a] and [aa]'; Gair (1966), 'Colloquial Sinhalese Inflectional Categories and Parts of Speech'; de Silva (1967), 'Effects of Purism on the Evolution of the Written Language : Case History of the Situation in Sinhalese'; and Gair (1968), 'Sinhalese Diglossia'.

This thesis is therefore an addition to the body of already existing research on Colloquial Sinhalese. Traditional studies of Sinhalese dealt largely with the morphology of the language, comments on syntax being incidental. Some of the work on Colloquial Sinhalese has however, dealt with the syntax of the language. de Abrew, Wickramasuriya, Gair, and Jayawardana, all discuss some aspects of morphology, but concern themselves primarily with syntax. This thesis too, deals essentially with the syntax of Colloquial Sinhalese, but examines it specifically within the framework of the generative

transformational model of grammar proposed by Chomsky in 'Aspects'.

Of the four studies above, the last three have, to a greater or lesser extent, drawn on 'transformational' relationships (in the sense defined above in p. 12) existing between pairs of constructions.

Wickramasuriya (1965) adopts, basically, a structuralist approach to syntax, but points out various transformational relationships obtaining between pairs of constructions. Discussing the relationship between the verb forms distinguished in the present study as base and involitive verbs (see Ch. 6), but as actives and passives by him, he comments:

"Such sentences are transformationally related to sentences containing Active voice verbs in which the Q - element in sentences of this type occur in the Nominative case functioning as subjects. This relationship between the two types of sentences is indicated by the following pairs.

<u>Active Voice Verb</u>		<u>Passive Voice Verb</u>
S v (Act) (i) babaa aŋDenevaa 'The baby is crying'	→	Q v (Pas) babaaTe æŋDenevaa 'The baby is crying'
S v (Act) (ii) kolla doDevenevaa 'The boy is muttering'	→	Q v (Pas) kollaTe deDevenevaa 'The boy is muttering' [etc.] ²⁸

In his discussion of modifications and expansions of nominal phrases in Sinhalese, having classified the properties of each type, he then gives a conversion formula deriving each type from an

28. B.S.S.A. Wickramasuriya (1965), Ch. 5 p. 111.

underlying simple sentence. A typical example is cited below.

" Type A : The participle may be preceded by a nominal which is in subordinate relation to it. Notionally, the nominal is the 'actor', the participle is the 'action', and the head of the whole nominal phrase is the object or 'goal' of the action, e.g.,

	n	III	NH	
(i)	laməya	kaDəne	geDi	'the fruits being plucked by the boy'
	n	III	NH	
(ii)	kelle	biṇḍepu	piṅgaane	'the plate broken by the girl'
	n	III	NH	
(iii)	amma	uyepu	kævun	'the sweetmeats prepared by mother'

Nominal phrases of this type are related to simple kernel sentences of the 'transitive' type, with the structure S + O + V. Thus the conversion formula for the type of nominalisation illustrated in sentences (i) to (iii) above would be as follows.

Kernel Sentences

Nominalisation

N₁ + N₂ + V_{tr}

→

N₁ + Participle_{tr} + N₂

laməya geDi kaDənevaa
'child-fruits-plucks'

laməya kaDəne geDi
'child-plucking-fruits'

'The child is plucking
fruits'

'The fruits being plucked
by the child'

Thus the changes involved are: (i) the conversion of the finite verb into the participle of the corresponding tense; (ii) the change of the position of the N₂ from pre-verbal position to post-participial position".²⁹

This approach highlights significant relationships between types of constructions, but clearly lacks the explicitness and generality characteristic of generative transformational grammars outlined above. The same is true of Gair's approach to a wider range of

clause structures in Sinhalese.

Gair uses as his theoretical framework a combination of the 'constructional' (following Hockett) and 'transformational' approaches to syntax. He distinguishes first a number of 'Clause Construction Types'.

"Clauses built by any of the patterns in this section may occur as independent clauses . . . and when they so occur are basic clauses. They also serve as bases for the transformations . . .

Most clause types given in this section are clearly kernel, but there are some included for which there is evidence pointing to possible transformational derivation. For the latter, the transformations involved are doubtful or not adequately statable from available data".³⁰

The properties of these types are specified in constructional terms. He then discusses a number of 'Clause Transformations', which he defines as follows.

"Transformations applying to clauses fall into two major groups:

- (1) SINGLE -BASE transformations operate upon a single clause to produce a single clause, and both base and transform are capable of occurring as independent clauses.
- (2) DOUBLE - BASE transformations operate upon two clauses, combining them in some fashion. Commonly, that part of the transform deriving from one of the clauses is incorporated into, or placed in an attributive relationship to, that part deriving from the other . . .

It is possible to approach double-base transformations in a different way. In his study of Huichol, Grimes defines SHUNTING TRANSFORMATIONS as 'transformations that operate on an independent clause to yield a clause that stands in a specific grammatical relationship to some other clause'. In essence this approach looks at double-base transformations from the point of view of one of the base clauses: that which is incorporated or rendered attributive. It has decided

30. J.W. Gair (1970), Ch. 5 p. 56.

advantages at this early stage in the analysis of Sinhalese, since it allows us to retain some of the advantages of a transformational treatment by accounting for a number of kinds of dependent structures found in the data in terms of clause patterns already described, while characterising their distributions in constructional terms as specifically as the evidence allows. At the same time, it is consistent with the emphasis in this study on single-clause patterns, since it is characteristically the form resulting from the shunting transformation, not that into which it is introduced, that represents a new variety of clause. This approach is thus adopted here".³¹

Gair uses, for instance, a transformational formula of the type illustrated below to relate sentences with the modal element æti (probable) to basic clause constructions. Similar sentences are discussed in Chapter 5 of the present study, and it can be seen there that by using an 'Aspects' type theory of grammar, generalisations more extensive than those Gair is able to capture below, can be captured.

"With æti as Aux

X V-Af → X V-nne æti

Active verbal clauses and impersonal clauses of at least the perception type may serve as bases. The implication is past time and probability.

Active Clause as Base :

$$\begin{array}{ccc} \text{mahattea} & \text{yanewa} & \longrightarrow \\ \text{'gentleman go-npt-a'} & = & \text{mahattea yanne æti} \\ & & \text{'The gentleman must have gone'} \end{array}$$

[etc.]³²

Hence, though both Wickramasuriya and Gair note significant

31. J.W. Gair (1970), Ch. 6 p. 106.

32. J.W. Gair (1970), Ch. 6 p. 110.

transformational relationships between sets of constructions, neither of them uses a rigorously formulated generative transformational model. Gair expressly states that his use of transformational analysis sets itself a less ambitious task than that of other contemporary transformational approaches, but sketches some of the more modest purposes it may serve. He comments:

"It is apparent from the growing literature on transformations that an 'orthodox' transformational approach, by which for lack of a better term we may refer to the kind of coherent descriptive model advanced by Chomsky, is difficult if not impossible to apply to any sizeable segment of a language for which one has only a limited corpus and with which he lacks native or near-native familiarity . . . Nevertheless, it would appear that transformations could be used to advantage even in the comparatively early stage in the analysis of a language represented by this study".³³

Consequently, Jayawardana's examination of case in Sinhalese, which is conducted within an explicitly transformational framework, makes a rather different contribution to the development of syntactic investigation into Colloquial Sinhalese. Jayawardana explores the syntactic relations between noun phrases and the main verb in Sinhalese sentences, basing his study on the Case Grammar proposed by C.J. Fillmore, and constructs a formal Case Grammar capable of accounting for a large number of sentence types in Sinhalese. His area of research however leads him largely to an examination of simple sentences in Sinhalese. Both Wickramasuriya and Gair deal with some complex constructions, but neither undertakes a large-scale

33. J.W. Gair (1970), Ch. 1 p. 20.

investigation of this field.³⁴ In his chapter on 'Modifications and Expansions of the Nominal Phrase in Sinhalese' (Ch. 7), Wickramasuriya discusses quite fully several types of complex nominal constructions, but other aspects of complex sentence formation are not relevant to his subject. Gair discusses some types of complex sentences in the sections on 'Shunting Transformations' and 'Nominalising Transformations' (Ch. 6.2 and 6.4), but his treatment of these is, in his words, 'in the briefest possible fashion', and he expressly leaves the formulation of adequate rules for such constructions for later treatment. Other types of sentences distinguished in the present study as derived from complex underlying structures, are not handled transformationally by him.

The present thesis is essentially one more step in the continuing line of research discussed above. In particular, I discuss complex sentence formation, which up to now, has not been the subject of any full study. By working within an 'Aspects' theory of grammar, I attempt, in addition, to formulate a relatively small but general set of rules that will serve to generate a correspondingly large number of new sentences. I am specifically interested in how certain recursive mechanisms like relativisation, NP complementation, and conjunction can be employed to generate an infinitely large number

34. de Abrew (1963), Ch. 8, 'The Structure of the Verbal Piece in Complex Sentences', also deals with some types of complex sentences, but as noted earlier, within a non-transformational framework.

of sentences.

Chapter 2 presents a set of phrase structure rules capable of generating the deep structures of a large variety of simple sentences in Sinhalese. Various categories introduced in these rules are discussed and justified, and illustrative examples of deep structures generated by the rules are given. In addition, certain transformational rules required to derive the relevant surface structures are introduced. Although an item 'Imp' is introduced in the expansion of 'Post S' (Ch. 2 (2)) to account for imperative sentences, such constructions are not discussed. The chapter also notes a type of irregular sentence that the phrase structure rules cannot handle, but these constructions are not discussed in detail.

Chapter 3 introduces one of the principal mechanisms responsible for complex sentence formation, relativisation. Several types of nominal modifiers in Sinhalese are discussed, and it is demonstrated that an additional phrase structure rule allowing for the recursive embedding of a sentence in a noun phrase, and three principal transformational rules, Relative Phrase Formation, Appositivisation, and Modifier, suffice to derive such constructions.

Chapter 4 introduces another of the major recursive mechanisms of the language, complementation. Several types of complement constructions in Sinhalese are discussed, and it is shown that a phrase structure rule allowing for NP complementation serves to generate the majority of these types. A few types are not as easily

handled, and a rule allowing for VP complementation is set up to account for these. Some suggestions are offered, however, of conditions under which such constructions too can be considered NP complements. If such suggestions can be validated, then a single rule of NP complementation will suffice to generate all complement constructions in the language. The chapter also introduces several transformational rules, some of which are fundamental to several other areas of Sinhalese syntax as well. These are ekə or Pronoun Deletion, Equi-NP Deletion, ekə or Pronoun Replacement, and the Infinitive rule. The first three correspond to similar transformational rules that have been seen to be necessary in English and a large number of other languages as well.

Chapters 5 to 8 examine a series of special types of constructions in Sinhalese, modal constructions, involitive sentences, causative sentences, sentences of emphatic assertion and negation, and pseudo-cleft constructions. Investigation of these types reveals that, except for the last type, all the others must be derived from complex underlying structures. It is also demonstrated that the general principles of complementation discussed in Chapter 4 can be extended to account, together with relatively few additional transformational rules, for all these constructions. Chapters 6 and 7 introduce the concept of 'abstract' verbs. Although such entities have been proposed in several instances in transformational literature, they are necessarily extremely powerful devices. The conditions under which they are introduced in the present study are discussed, and it is

shown why the use of such entities seems reasonable in this context. Chapter 8 argues against a complex underlying structure for pseudo-cleft sentences, and claims that despite appearances, these constructions cannot be considered complex sentences.

Chapter 9 returns to the third and last major recursive mechanism discussed here, conjunction. It is shown that two additional phrase structure rules, generating conjoined sentences, and phrasally conjoined noun phrases, respectively, are required in the grammar. The transformational processes of Conjunction Reduction and Gapping are discussed, and it is argued that there is evidence only for the existence of the former in Sinhalese. I refer also to 'symmetric' and 'asymmetric' interpretations of conjunctions, and some properties of 'iterative' conjunctions.

Chapter 10 turns to adverbials. A test is proposed by which a large and varied collection of constructions can be identified as adverbials. The chapter examines, rather tentatively, the suggestion that very few additional rules are required to account for this assortment of constructions. Three particular types of adverbials are discussed in some detail, progressive and perfective adverbials, agentive adverbials, and one type of reason adverbials. The chapter only skims the surface of the problems connected with adverbials, and none of the solutions offered are intended to be definitive. This is however, a particularly interesting area of complex sentence formation, and it can only be hoped that the preliminary investigation undertaken here will serve as a useful background to

further research.

Chapter 11, like Chapter 10, is of a more tentative nature than the earlier chapters. This is an attempt to examine a rather different type of construction to those handled in the earlier chapters, comparative constructions. Comparative constructions in many languages have presented problems of analysis.³⁵ The solutions offered here are in no way final. In particular, the proposed analysis depends crucially on an extension of the transformational rule of eke or Pronoun Deletion which is not discussed in detail. No precise formulation of the Comparative Reduction rule is offered either. However, since such constructions are a somewhat different type of complex sentence in Sinhalese, it is of interest to examine to what extent they may be derived by the rules already postulated to handle other types of complex sentences. If the analysis of comparatives proposed in Chapter 11 can be validated, no additional rules other than the optional Comparative Reduction transformation will be required to derive a large variety of such constructions.

This thesis therefore, covers a fairly wide range of syntactic structures in Sinhalese. My purpose in selecting a rather

35. Comparative constructions in English have received considerable attention, both in independent studies of the subject, and in incidental discussions of such constructions in texts devoted to other subjects. Some of the significant papers dealing with such constructions are Lees (1961), Smith (1961), Huddleston (1967) and Hale (1970).

wide area of research is aptly described by an argument Chomsky presents as a counter to the argument that work on syntactic theory is premature at a time when many of the problems arising on the lower levels of phonemics and morphology remain unsolved.

"The grammar of a language is a complex system with many and varied interconnections between its parts. In order to develop one part of the grammar thoroughly it is often useful, or even necessary, to have some picture of the character of the completed system".³⁶

By examining one area of syntax, I have, at many points, been able to find data that is relevant to an apparently unrelated area of syntax. For instance, the analysis of modal constructions, involitive sentences, and causative sentences in Chapters 5 to 7 depends essentially on the discussion of complement constructions in Chapter 4. The suggested analysis for perfective adverbials, and then agentive adverbials, in Chapter 10, reveals facts about causative sentences that would otherwise have gone unnoticed. However, there still remains a large body of data that is not touched on here. Among other things, imperatives are not handled. Nominalisations like those in (4)-(6) are not handled.

- (4) laməyagee æŋDumə sadde vaeDiyi
'the child's' 'crying' 'noisy' 'too much-is'

(The child's crying is too noisy.)

- (5) laməyagee æŋDille hari pudumayi
'the child's' 'crying' 'very' 'peculiar-is'

(The way the child is crying is most peculiar.)

36. N. Chomsky (1957), Ch. 6 p. 60.

- (6) eyaagee puTu viyemene hari apuuruyi
 'his' 'chairs' 'weaving' 'very' 'fine-is'

(His weaving of the chairs is extremely nice.)

Sentences like (7), which are obviously related to certain complement types discussed in Chapter 4 by some process of topicalisation or extraposition, are other interesting constructions that are omitted.

- (7) eekə pudumayi laməya aŋDene eke
 'that' 'surprising-is' 'the child' 'crying' 'thing'

(That's surprising, that the child is crying.)

The use of involitive verbs in passive constructions is also not discussed. A sentence like (8), in which the involitive verb aereŋbunaa (got or were started) appears, seems to carry a sense of passivity rather than involution. However, such constructions are not considered in Chapter 6. Footnote 7 in Chapter 6 refers to another such construction.

- (8) samitiye magin sanvardene kaTeyutu aereŋbunaa
 'the committee' 'by' 'development' 'projects' 'started-PASSIVE'

(Development projects were inaugurated by the committee.)

In addition, the fact that this thesis covers a relatively wide area of research necessarily means that many of the issues considered cannot be handled in depth. For instance, the discussion of relativisation in Chapter 3 leaves many unresolved issues (such cases are mentioned at the relevant points in the chapter). The discussion of conjoining processes in Chapter 9 deals largely with one particular conjoining particle, yi (and). The formulation of

Conjunction Reduction does not take into account more problematic sentences, e.g. those involving quantifiers.

Hence, the present work is in no way intended to be an exhaustive or a definitive survey of Sinhalese syntax. As will be obvious to any student of linguistics, and in particular, any student of the development of transformational theory, this can make only a rudimentary examination of some of the material available.

The data presented here is drawn primarily from my own dialect, using the term in the sense of Halliday, McIntosh and Stevens (1964).³⁷ This dialect is a variety characteristic of the south western region of Ceylon.³⁸ I am bilingual, and have used both Sinhalese and English as an L₁, having learnt both before the age of instruction, though each language has been used for different purposes and in different contexts.³⁹ Consequently my speech differs in some respects from what is coming to be known as 'Standard Sinhalese'.⁴⁰ The main differences however, concern phonology, and the larger number of loanwords from English, and hence, are not of

37. Halliday, McIntosh and Stevens (1964), Ch. 4 p. 77.

38. See Jayawardana (1971), Ch. 1 pp. 2-4 for a brief description of dialect differences in the island.

39. The terms 'bilingual' and 'L₁' are used in the sense of Halliday, McIntosh and Stevens (1964), Ch. 4 p. 78.

40. The term 'Standard Sinhalese' is used in Wickramasuriya (1965), Ch. 1 p. 12, Jayasekera (1970), Ch. 1 p. 13, and Jayawardana (1971), Ch. 1 p. 16.

particular relevance to the data used here. Piyaseeli Suriyasetty, another native speaker of Sinhalese, has checked all the data presented, and in particular instances where I have envisaged considerable variety in informant responses, the data has been checked with several native speakers, and any significant variation has been noted in the text.

The term 'dialect' is also used in this thesis in the sense in which it is frequently used in recent transformational studies, i.e. to distinguish varieties of a language which differ with respect to only one particular rule of the grammar.⁴¹ In this sense, varying responses to certain questionable sentences presented in Chapter 3 (i.e. (74)-(76) and (107)-(111)) and Chapter 9 (i.e. (72)) can be used to differentiate various 'dialects'. As in the case in Chapter 9, such differences can often be handled by imposing different conditions on the applicability of a rule for different dialects. Elliott, Legum and Thompson (1969) present several arguments as to why such syntactic variation should be accounted for by grammatical theory.

They comment:

"What we would like to show here is that variation, particularly of the very subtle types which exist among speakers who apparently have the same dialect, must be considered part of our data, because variation is a fact and any

41. Akmajian (1970) differentiates three dialects on the basis of different verbal agreement patterns in cleft sentences. Ross (1970a), p. 236, refers to a particular type of construction possible in 'Joshua Waletzky's dialect'.

theory of language which ignores it cannot be as complete as one which does not. Furthermore, these are facts both about linguistic theory and about the grammars of particular languages whose existence will be obscured unless variation is taken into account. We will see that there are regularities underlying what appear to be chaotic disagreements".⁴²

In some of the examples used in this study, possible, but uncommon sentences are cited. For example, Chapter 11 quotes equative comparative constructions like (9), though (10), in which Case Suffix Deletion has applied to the noun taremeTe (to the extent), is by far the more familiar sentence.

- (9) padma sunil taremeTe me læjjaayi
 'Padma' 'Sunil- 'the same extent-to' 'is shy'
 boy's
 name in Sinhalese'

(Padma is as shy as Sunil.)

- (10) padma sunil taram me læjjaayi
 'Padma' 'Sunil' 'the same extent' 'is shy'

(Padma is as shy as Sunil.)

In such instances, the use of the more unfamiliar sentence is not a matter of dialect variation, but merely of convenience, for the use of the more familiar sentence would involve discussing an additional rule (in this case, Case Suffix Deletion) which would be irrelevant to the discussion in hand.

Since this is basically a syntactic study, a systematic device of transliteration suffices to represent all Sinhalese

42. Elliott, Legum and Thompson (1969), p. 52.

examples. The values of the symbols used are approximately as follows.

Consonants

		Bilabial	Dental	Alveolar	Palatal	Velar	Glottal
Plosive	Voiceless	p	t	T		k	
	Voiced	b	d	D		g	
	Pre-Nasalised	mb	md	MD		Ng	
Affricate	Voiceless				c		
	Voiced				j		
Nasal		m		n	ɲ	N	
Flap				r			
Lateral				l			
Fricative	Voiceless			s			h
Frictionless Continuant		v			y		

Vowels

	Front	Central	Back
Close	i		u
Mid	e	ə	o
Open	æ		a

Long vowels and consonants are written geminated, e.g. ii, ee, kk, gg etc.

Each Sinhalese example is accompanied by an item - by - item translation, followed by a relatively free translation of the entire phrase or sentence into English. The item - by - item translation is given within single quotation marks, and attempts to translate the Sinhalese item as precisely as possible into English, capturing as far as possible, the exact semantic value of the Sinhalese item, and using corresponding parts of speech etc. for the English glosses.

In some cases this leads to case suffixes like en in Sinhalese being translated variously by the English prepositions 'in', 'from' etc.; or, in the most extreme case, the adverbial suffix ve in Sinhalese being translated by the adverbial suffix 'ly' in English. (Ch. 10 footnote 1 comments on the inaccuracy of this gloss.) Specifying the exact semantic value of such particles and suffixes in a language is admittedly unwise, and the sweeping fashion in

which English equivalents are given here is not meant to indicate that I claim any consistent or exact relationship between the Sinhalese and English items. This is merely done for convenience, in order to convey the approximate values of the Sinhalese examples.

The free translation is given in parentheses below the item - by - item gloss, and attempts to render the Sinhalese sentence in idiomatic English. Such translations do not necessarily use corresponding grammatical constructions to those in the Sinhalese examples. In cases where it is impossible to capture in English the flavour of an example, portions of the free translation are given within double quotation marks. This device therefore marks un-English constructions. Progressive adverbials are examples in which this device is used. In some instances un-English sentences are followed by a further translation into idiomatic English, which however, conveys less adequately the feel of the Sinhalese construction.

In a large number of cases, ungrammatical sentences in Sinhalese find ungrammatical counterparts in English. In such cases, the free translation into English is also marked with an asterisk. Such sentences are sometimes grammatical under an interpretation other than that being considered for the corresponding Sinhalese construction. Where such instances arise in the case of the Sinhalese constructions, this is noted in the text, but it is not generally noted separately for the English translation as well.

In other cases only the English glosses are given for

ungrammatical sentences, and a free translation is omitted. In a few number of cases, the corresponding English sentence is grammatical, for in such cases, restrictions of the sort being discussed for Sinhalese are not relevant to English. In these cases the free translations are not starred.

Ungrammatical constructions are, in general, marked with an asterisk, and questionable ones with a question mark. In cases where a particular set of examples represents a hierarchy of questionability (e.g. Ch. 3 (107)-(111)), an increasing number of question marks is used to indicate an increasing degree of questionability.

CHAPTER 2

SIMPLE SENTENCES IN SINHALESE

Simple sentences in Sinhalese can be generated by the following set of phrase structure rules.

- | | | | |
|--------|--------|---|---|
| (1) | S | → | NP + VP (Post S) |
| (2) | Post S | → | (Neg) ({ $\begin{smallmatrix} Q \\ Imp \end{smallmatrix}$ }) |
| (3) | VP | → | { (Adv) + (NP) + V
(Adv) + Pred } |
| (4) | V | → | Verb Root + Tense |
| (5)(7) | Tense | → | { Past
Non-Past } |
| (6)(5) | Pred | → | ({ $\begin{smallmatrix} NP \\ Adj \\ Adv \end{smallmatrix}$ }) + Copula |
| (7)(6) | Copula | → | { $\frac{yi}{in} / \frac{tiye + Tense}{ve + Tense}$ } |
| (8) | Adv | → | { Adverb
NP + { $\frac{Te}{ee}$
$\frac{en}{Postposition}$ } } |
| (9) | NP | → | Det + N |
| (10) | Det | → | { Def
Indef } |
| (11) | Def | → | \emptyset |

$$(12) \quad \text{Indef} \longrightarrow \left\{ \begin{array}{c} k \\ \underline{\emptyset} \end{array} \right\}^1$$

Case Suffixes

In the dialect of Sinhalese dealt with in this study, nouns appear in five distinct case forms. These case forms are illustrated in (13) for the noun laməya (child), with plural form lamayi (children).

(13)

	Singular	Plural
<u>a</u>	laməya	lamayi
<u>b</u>	laməya(və)	lamayin(və)
<u>c</u>	laməyaTə	lamayinTə
<u>d</u>	laməyagee	lamayingee
<u>e</u>	laməyagen	lamayingen

Form a appears in subject NP position (i.e. in rule (1)) and b in object NP position (i.e. in rule (3)). Forms c, d, and e appear only in 'Adv' (adverbial) position (i.e. in rule (8)). Nouns which appear in c, d, and e forms may have a large variety of semantic values, e.g. Dative, Instrumental, Genitive, Benefactive, Locative etc.

1. k is selected for singular nouns, and ∅ for all others.

Since it would complicate a rule of Case Marking more than is necessary for our purposes here to include these semantic labels in our phrase structure rules, I will, for convenience refer to these NPs in the phrase structure rules by the terms NP+Te, NP+ee and NP+en. This device is used only for convenience, and a more accurate set of phrase structure rules would include the semantic terms.²

Although the symbols Te, ee and en are used to refer to the respective case suffixes, the surface forms of these in fact, differ slightly for different nouns. Phonological rules convert ee into gee in the environment of animate singular nouns as in (13d); into ngee for animate plural nouns as in (13d); into ee for inanimate singular nouns as in potee for the noun pote (book); and into vele for inanimate plural nouns as in potvele for the noun pot (books).

In the case of subject and object NPs, a transformational rule of Case Marking something like (14) must apply. ve is an optional accusative suffix for animate nouns in the dialect under discussion, but in all further examples I omit the parentheses. Also, except where it is necessary to do otherwise, these case suffixes are included in all the following phrase markers.

2. See Jayawardana (1971) for an account in terms of Case Grammar of the relationship between various 'semantic' cases and case forms.

(14) Case Marking

<u>a</u>	SD :	[NP - X] _S	⇒	OBL
		1 2		
	SC :	1+ <u>∅</u> 2		
<u>b</u>	SD :	[X - NP - V] _{VP}	⇒	OBL
		1 2 3		
	SC :	1 2+ $\left\{ \begin{array}{c} \underline{ve} \\ nve \\ \underline{\emptyset} \end{array} \right\}$ 3		

Condition : ve is selected where 2 is singular and animate, nve where it is plural and animate, ∅ where it is inanimate

The set of phrase structure rules given above generates simple sentences like (15)-(18).

- (15) padma aṁḍenəvaa
'Padma- 'cry-NON-PAST'
girl's
name in Sinhalese'

(Padma is crying.)

- (16) padma bat kanəvaa
'Padma' 'rice' 'eat-NON-PAST'

(Padma is eating her rice.)

- (17) padma hayiyen aṁḍenəvaa
'Padma' 'loudly' 'cry-NON-PAST'

(Padma is crying loudly.)

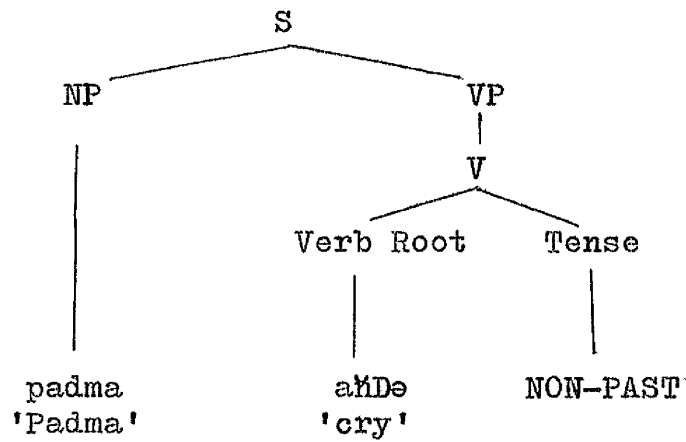
- (18) padma atəne bat kanəvaa
'Padma' 'there' 'rice' 'eat-NON-PAST'

(Padma is eating her rice over there.)

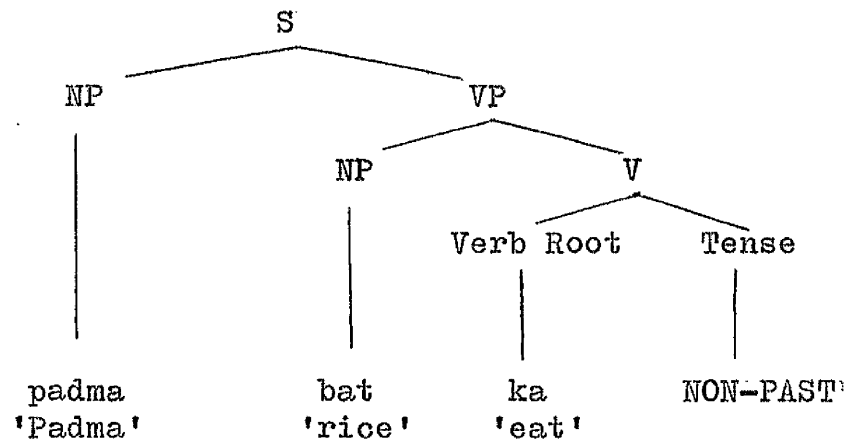
(19)-(22) are the respective deep structures. aṁḍə (cry) + NON-PAST is spelt out as aṁḍenəvaa (is crying) by the phonological

component, and ka (eat) + NON-PAST as kanevaa (is eating).

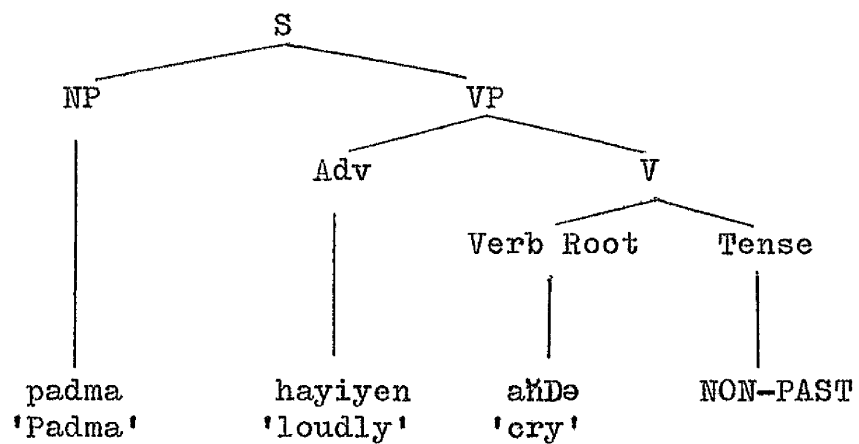
(19)



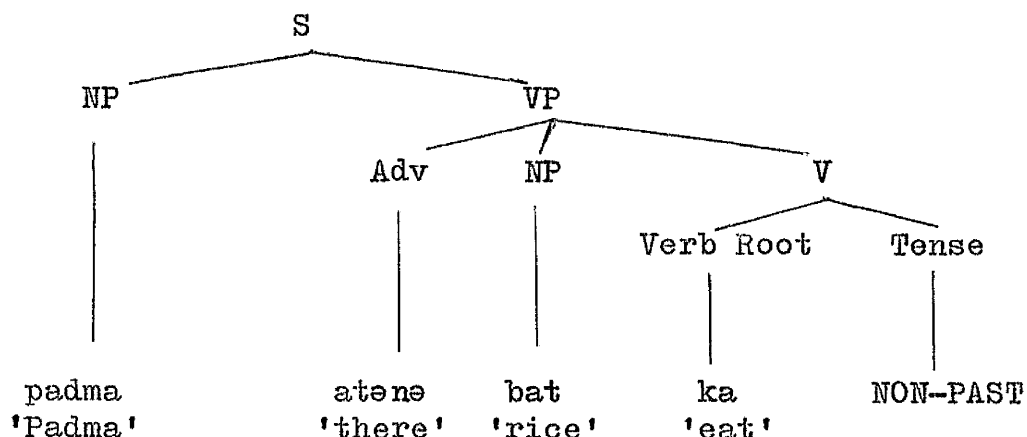
(20)



(21)



(22)



Order of Constituents

I take the order of constituents as represented in the phrase structure rules to be the basic order in Sinhalese. However, a sentence like (18) can have corresponding to it a set of twenty three other grammatical sentences like the following in which there is no change of meaning or emphasis.³

- (23) a padma bat atene kanəvaa
 'Padma' 'rice' 'there' 'eats'
- b kanəvaa atene bat padma
 'eats' 'there' 'rice' 'Padma'
- c kanəvaa padma bat atene
 'eats' 'Padma' 'rice' 'there'
- d bat atene kanəvaa padma etc.
 'rice' 'there' 'eats' 'Padma'

Despite this, I take the order in the phrase structure

3. A change in emphasis would occur only with a change in intonation pattern as in:

 /
 'padma atene bat kanəvaa'

or

 /
 'padma atene bat kanəvaa' etc.

rules to be basic because constituents may appear in orders like those represented in (23) only in matrix sentences. In all embedded and conjoined sentences, only the order given in the phrase structure rules is permissible. The relative phrase in (24a) is grammatical, but not that in (24b). (See Ch. 3 for a discussion of relative phrases.) The complement construction in (25a) is grammatical, but not that in (25b). (See Ch. 4 for a discussion of complement constructions.) (26a) is a grammatical conjoined structure, but not (26b). (See Ch. 9 for a discussion of conjoined structures.)

(24) a bat kanə laməya
 'rice' 'eating' 'the child'

 (the child who is eating rice)

b *kanə bat laməya
 'eating' 'rice' 'the child'

(25) a padma bat kanə eke
 'Padma' 'rice' 'eating' 'thing'

 (that Padma is eating rice)

b *kanə padma bat eke
 'eating' 'Padma' 'rice' 'thing'

(26) a padma bat kanəvaayi aṁḍenəvaayi
 'Padma' 'rice' 'is eating-and' 'is crying-and'

 (Padma is eating her rice and crying.)

b *padma kanəvaa batuyi aṁḍenəvaayi
 'Padma' 'is eating' 'rice-and' 'is crying-and'

Hence I postulate that these phrase structure rules generate simple sentences in Sinhalese, and that an optional transformational rule of 'Scrambling' something like (27) operates to permute major constituents of a sentence (where 'major constituent' refers to any

constituent immediately dominated by S or VP).

(27) Scrambling

$$\begin{array}{ccccccc}
 \text{SD :} & X & - & \left\{ \begin{array}{c} \text{NP} \\ \text{V} \\ \text{Pred} \\ \text{Adv} \end{array} \right\} & - & \left\{ \begin{array}{c} \text{NP} \\ \text{V} \\ \text{Pred} \\ \text{Adv} \end{array} \right\} & - X & \Rightarrow \text{OPT} \\
 & 1 & & 2 & & 3 & & 4 \\
 \text{SC :} & 1 & & 3 & & 2 & & 4
 \end{array}$$

Condition : 2 and 3 are major constituents of one S and this S is not an embedded or conjoined S

Tense

Tense is introduced in the phrase structure rules by (4) and (5), repeated here for convenience.

$$\begin{array}{ll}
 (4) & V \longrightarrow \text{Verb Root} + \text{Tense} \\
 (5) & \text{Tense} \longrightarrow \left\{ \begin{array}{c} \text{Past} \\ \text{Non-Past} \end{array} \right\}
 \end{array}$$

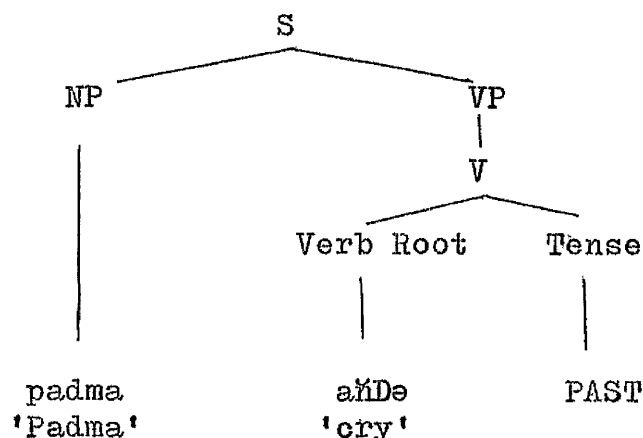
This claims that every main verb in Sinhalese is marked for tense. Such rules account for the difference between (15) and (28).

(28) padma æ̃Duvaā
'Padma' 'cry-PAST'

(Padma cried.)

(29) is the deep structure of (28). andē + PAST is spelt out as æ̃Duvaā (cried) by the phonological component. Except, however, where relevant to the discussion, Tense is omitted in future phrase markers.

(29)



The Non-Past form of a verb may appear with reference to both present and future time. Consequently, sets of time adverbials like daen (now), ade (today) and also those like passee (later), heTe (tomorrow) may be inserted into a sentence like (15). The resulting sentences mean 'Padma is crying now, today' or 'Padma will cry later, tomorrow' etc. The table in (30) on page 56 illustrates some time adverbials with which Past and Non-Past main verbs may respectively appear.

The 'Incomplete' and 'Modifier' forms of verbs are also distinguished for Past and Non-Past tense. The Incomplete form of a verb appears in negative sentences (see section on negative sentences in this chapter), and in pseudo-cleft sentences, and sentences of emphatic assertion and negation (see Ch. 8). The Modifier form appears in relative phrases (see Ch. 3) and complement constructions (see Ch. 4). The table in (31) on page 56 illustrates these forms.

(30)

	Time Adverbial	Past	Non-Past
padma 'Padma'	iiyee 'yesterday'	æ ʔDuva 'cried'	*aʔDeneva 'is crying'
padma 'Padma'	pæyekeʔe uDeɪ 'an hour ago'	æ ʔDuva 'cried'	*aʔDeneva 'is crying'
padma 'Padma'	taveme 'yet'	*æ ʔDuva 'cried'	aʔDeneva 'is crying'
padma 'Padma'	heʔe 'tomorrow'	*æ ʔDuva 'cried'	aʔDeneva 'will cry'

(31)

Past	Non-Past
padma æ ʔDuve næ hæ 'Padma' 'cried' NEG (Padma didn't cry.)	padma aʔDanne næ hæ 'Padma' 'is crying' NEG (Padma isn't crying.)
padmayi æ ʔDuve 'Padma-is' 'cried' (It is Padma who cried.)	padmayi aʔDanne 'Padma-is' 'is crying' (It is Padma who is crying.)
æ ʔDuve laməya 'cried' 'the child' (the child who cried)	aʔDene laməya 'is crying' 'the child' (the child who is crying)

There exist in Sinhalese other verb forms which carry some indication of future time, e.g. aMDaavi (or, for some speakers, aMDayi) meaning 'will (probably) cry', aMDannam, which is used only with a first person singular subject NP as a suggestion 'I will cry', aMDemu, used only with a first person plural subject NP meaning 'let us cry'. None of these forms appear in the Incomplete or Modifier form, unlike Past and Non-Past verb forms. This is illustrated in (32) on page 58. Hence, these verb forms are largely defective when considered as possible expansions of 'Verb Root + Future Tense', and provide no adequate reason for setting up a three-term distinction for tense in Sinhalese.⁴

The Copula

The Copula is introduced in the phrase structure rules (6) and (7), repeated here for convenience.

- (6) Pred \longrightarrow $\left(\begin{array}{c} \text{NP} \\ \text{Adj} \\ \text{Adv} \end{array} \right) + \text{Copula}$
- (7) Copula \longrightarrow $\left\{ \begin{array}{c} \underline{\text{yi}} \\ \underline{\text{in}} / \underline{\text{tiye}} \\ \underline{\text{ve}} \end{array} \right\}$

The yi Copula may appear with a noun phrase in a sentence like (33), with a deep structure (34). Phonological rules allow for

4. One way of handling such forms would be to set up a special modality constituent in the expansion of 'V'. Alternatively, such forms could be accounted for by the presence of the item 'Imp'. Both de Abrew (1963) and Wickramasuriya (1965) classify the last two types as imperatives.

(32)

* padma aŋDaavi naehae
'Padma' 'will cry' NEG

(Padma won't cry.)

* padmayi aŋDaavi
'Padma-is' 'will cry'

(It is Padma who will cry.)

* aŋDaavi padma
'will cry' 'Padma'

(Padma, who will cry)

* mame aŋDannam naehae
'I' 'will cry' NEG

(I won't cry.)

* mamayi aŋDannam
'I-is' 'will cry'

(It is me who will cry.)

* aŋDannam mame
'will cry' 'I'

(I, who will cry)

* api aŋDemu naehae
'we' 'let's cry' NEG

(Let's not cry.)

* apiyi aŋDemu
'we-is' 'let's cry'

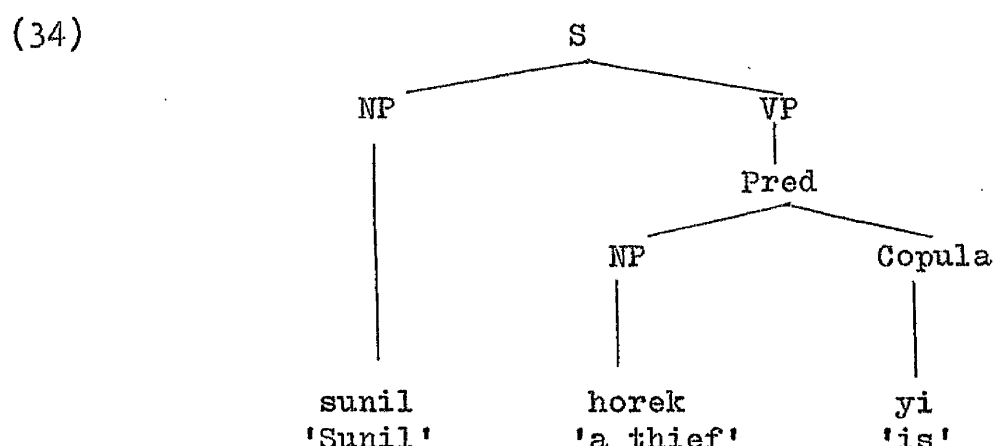
(*It's us who let's cry.)

* aŋDemu api
'let's cry' 'we'

(*We, who let's cry)

the deletion of yi in certain environments, e.g. following a consonant.

- (33) sunil horek (yə)
 'Sunil- 'a thief-is'
 boy's
 name in Sinhalese'
 (Sunil is a thief.)

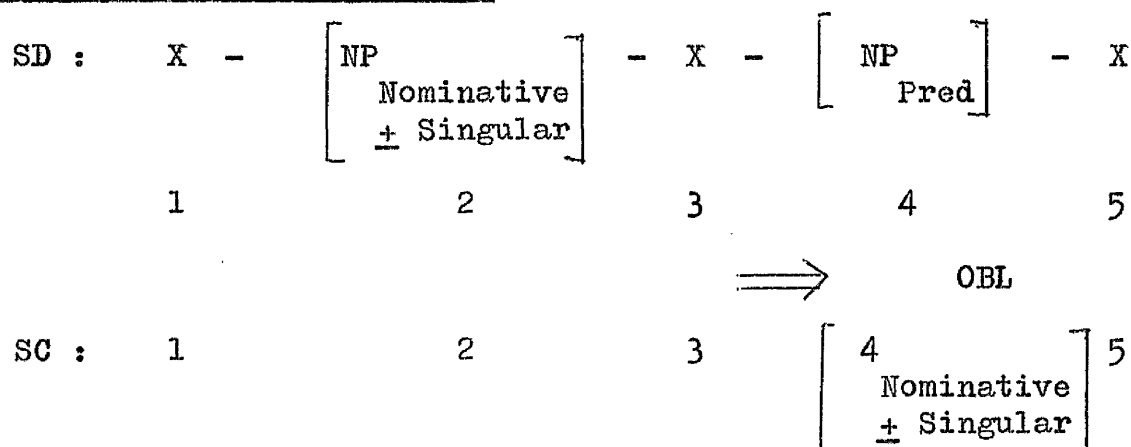


A variety of time adverbials, e.g. dæn (now), issərə (in the past), adin passee (after today), avurudu tunəkeTe (for three years), mamə koləmbə hiTiddi (when I was in Colombo), tavəmə (yet), may be inserted in a sentence like (33). Others like hatərə hamaareTe (at four thirty), giyə saMdudaa (last Monday), heTe udee (tomorrow morning) may not. Such restrictions are discussed further in Chapter 9 (with reference to (122) there). The yi Copula is in itself incapable of tense variation, but where it is used with appropriate time adverbials like those given above, a sentence will convey a sense of past, present or future time as in 'The child is a thief now', 'The child was a thief in the past', 'After today, the child

will be a thief' etc.

Main verbs in Sinhalese are not marked to agree in number, gender or person with subject NPs. However, where a sentence has a nominal predicate, this NP must be marked to agree with its subject NP both in number and case. This requires a transformational rule like (35), which will account for sentences like (36), and also for the ungrammaticality of (37).

(35) Number and Case Agreement



Condition : 2 and 4 are constituents of the same S

- (36) ee lamayi horu (yø)
'those' 'children' 'thieves-are'

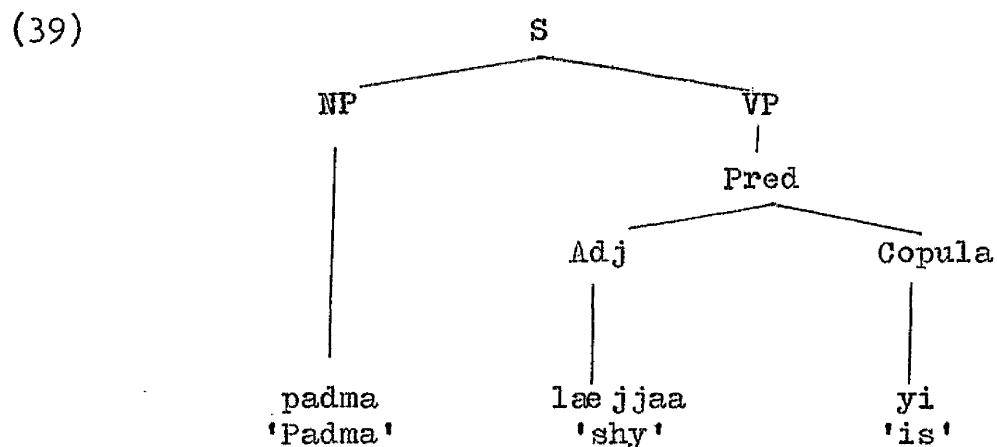
(Those children are thieves.)

- (37) *sunil horekvø (yø)
'Sunil' 'a thief-ACCUSATIVE' 'is'

Where the yi Copula is used with an adjective a sentence like (38), with a deep structure (39) is generated. Again, the insertion of appropriate time adverbials can convey reference to past, present or future time.

- (38) padma læ jjaayi
'Padma' 'shy-is'

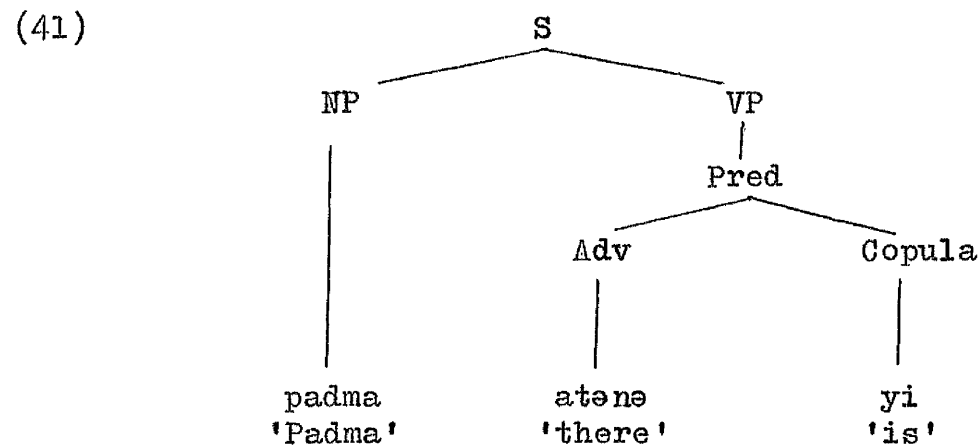
(Padma is shy.)



Where yi is used with an adverbial a sentence like (40), with a deep structure (41) is generated.

- (40) padma atəne (yi)
'Padma' 'there-is'

(Padma is over there.)



Sentences like (40) are systematically synonymous with

others like (42) in which the in/tiye Copula is used.

- (42) padma atəne innevaa
 'Padma' 'there' 'is'

(Padma is over there.)

Hence in deep structures like (41), either yi or in/tiye may be selected. The latter, unlike yi is capable of tense variation, and where it appears with Past tense, (43) is generated.

- (43) padma atəne unnaa
 'Padma' 'there' 'be-PAST'

(Padma was over there.)

Where it appears with Non-Past tense, in/tiye forms its negative irregularly, the negative being the negative morpheme naəhæ, rather than inne naəhæ as might be expected from the rule of negative formation (see section on negative sentences).

The form in of the in/tiye Copula appears with animate subject NPs, and the form tiye with inanimate NPs. Hence (44a) is grammatical, but not (44b).

- (44) a meesee atəne tiyenəvaa
 'the table' 'there' 'is-INANIMATE'
- b *meesee atəne innevaa
 'the table' 'there' 'is-ANIMATE'

(The table is over there.)

In certain contexts, e.g. in most relative phrases, there is no choice between yi and in/tiye. As (45) illustrates, the latter is

obligatorily selected in such contexts.⁵

- (45) a leDin inne laməya
 'in illness' 'be' 'the child'

- b *leDin laməya
 'in illness' 'the child'

(the child who is ill)

Not all in/tiye sentences with adverbials have deep structures like (41). (46) does not have a grammatical/counterpart like (47), nor is there a parallel grammatical sentence with yi like (48).

- (46) padma hoŋdeTe innevaa
 'Padma' 'nicely' 'is'

(Padma is behaving nicely.)

- (47) *padma hoŋdeTe næ hæ
 'Padma' 'nicely' NEG

- (48) *padma hoŋdeTayi
 'Padma' 'nicely-is'

On such evidence we can distinguish a relatively small number of adverbial types which occur in deep structure configurations like (41). Locative adverbials appear in sentences like (49). Time adverbials may appear in sentences like (50), where the subject NP is one of a small group of nouns with meanings like 'meeting', 'lecture', 'appointment' etc. Some manner adverbials may appear in sentences like (51).

5. In relative phrases with some adverbials, e.g. atəne (inne) laməya (the child who is over there), a choice exists.

suffix ve.

- (55) *sunil horekve venevaa
'Sunil' 'a thief-ACCUSATIVE' 'is becoming'

Now consider a sentence like (16), which may have two relative phrases, (56) and (57), corresponding to it, in each case a different noun phrase being relativised.

- (56) bat kane padma
'rice' 'eating' 'Padma'

(Padma, who is eating her rice)

- (57) padma kane bat
'Padma' 'eating' 'rice'

(the rice which Padma is eating)

Corresponding to (52) however, we may have (58), but not (59).

- (58) horek vene sunil
'a thief' 'becoming' 'Sunil'

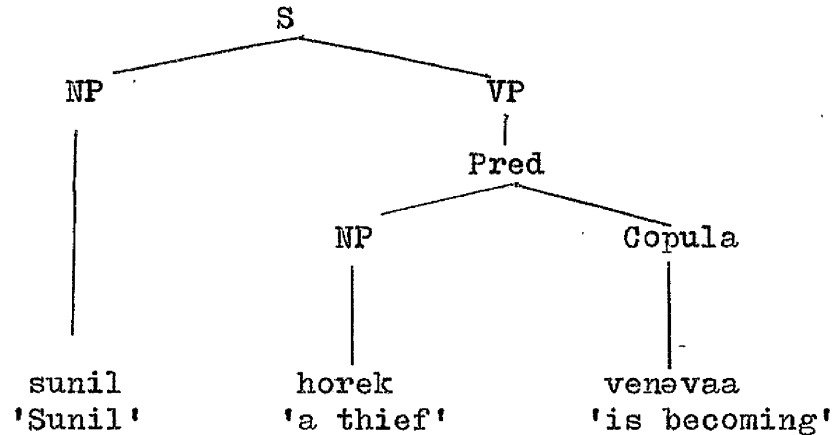
(Sunil, who is becoming a thief)

- (59) *sunil vene horek
'Sunil' 'becoming' 'a thief'

(*a thief who Sunil is becoming)

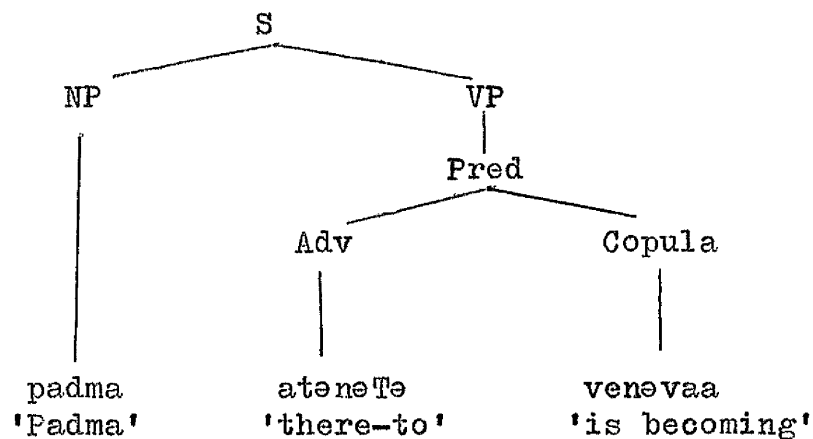
Both sets of evidence suggest that horek (a thief) cannot be considered an object NP, but must instead be a predicative NP. Consequently, ve appears to be a form of copula, and (52) to have a deep structure (60).

(60)



Sentences like (54) present more of a problem. However, as the analysis of these is not crucial to anything I say with respect to complex sentences, and since the adverbial in such sentences cannot be omitted, e.g. **padma venavaa* (*Padma becomes), I will for the present assume that (61) is the relevant deep structure.

(61)



In Chapter 8, a transformational rule 'Pseudo-Cleft' is formulated, by which the yi Copula may be attached to any major constituent of a sentence. For sentences like (52) and (54) it may

be attached to the predicative nominal and adverbial, deriving (62) and (63).

- (62) sunil horek uyi venne
'Sunil' 'a thief-is' 'is becoming'
(It is a thief that Sunil is becoming.)

- (63) padma atəṇəTayi venne
'Padma' 'there-to-is' 'is becoming'
(It is in there that Padma gets.)

Pseudo-Cleft may not however apply to (53), as demonstrated in (64).

- (64) *padma ləɟjaayi venne
'Padma' 'shy-is' 'is becoming'
(*It is shy that Padma is feeling.)

This suggests that ləɟjaa ve (become shy), and other such groups need to be analysed as units, that is as compound verb roots, rather than as two constituents. Such compounding is in fact a very productive method of verb formation in Sinhalese. Hence (53) can be assigned a deep structure configuration like (19) rather than one like (39).

In the expansion of 'Pred' (predicate), $\left\{ \begin{array}{l} \text{NP} \\ \text{Adj} \\ \text{Adv} \end{array} \right\}$ is parenthe-

sised. This claims that the Copula can appear as the sole constituent of the verb phrase, or on occasion, with only an adverbial. This claim is based on the existence of sentences like (65)-(68).

- (65) padma innəvaa
'Padma' 'is'
(Padma is present.)

- (66) meesee tiyenəvaa
'the table' 'is'

(The table is there.)

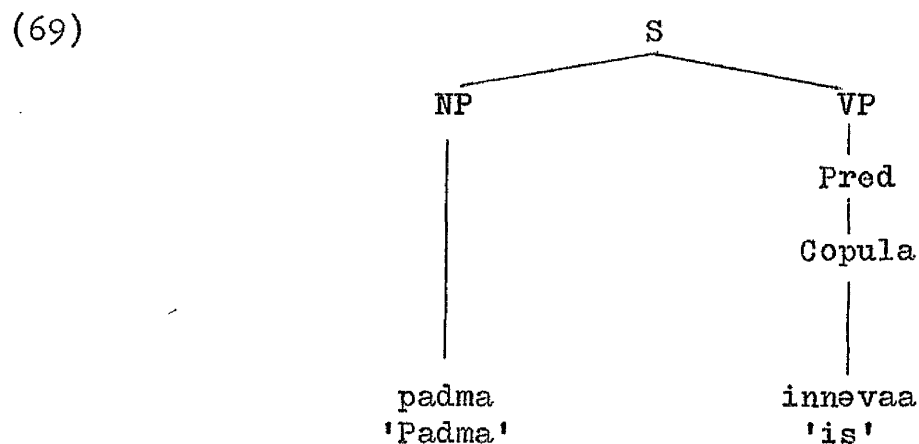
- (67) æksiDənt venəvaa
'accidents' 'become'

(Accidents happen.)

- (68) siitəla yi
'cold' 'is'

(It is cold.)

(65) has a deep structure (69). Where an optional adverb occurs, a sentence like (46), which has already been discussed, is generated.



Such constructions behave peculiarly with respect to relativisation, and there is no grammatical relative phrase like (70). Where an optional adverb is present however, the corresponding relative phrase (71) is grammatical.

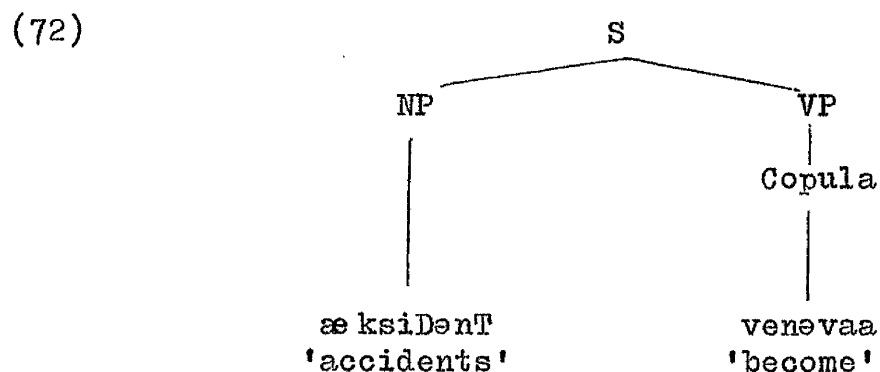
- (70) *inne padma
'being' 'Padma'

(*Padma, who is)

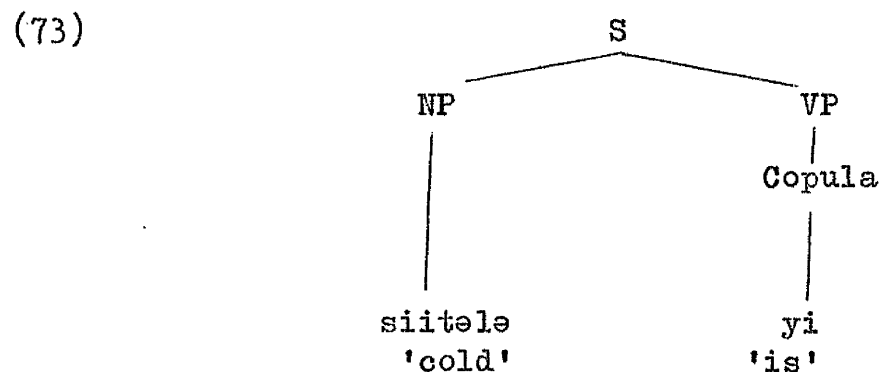
- (71) hoŋdətə inne padma
'nicely' 'being' 'Padma'

(Padma, who is behaving nicely)

(67) has an underlying structure (72). Where adverbs like mee paaree (along this road), hæ mēdaame (every day), are inserted into such a phrase marker, further sentences meaning 'Accidents happen on this road, every day' etc. may be generated.



The analysis given here claims that a deep structure (73) underlies (68). Such an analysis is open to question, an alternative analysis being one in which siitəlayi (It is cold) as a whole is said to constitute the predicate.



The former analysis is preferred here for two reasons. Firstly, the negative of such a sentence is siitələ næhæ (It is not cold). It was noted on page 62 that the negative morpheme næhæ replaces the Copula in sentences like (42). The discussion of negative sentences shows that the negative morpheme which occurs with nominal predicates is not næhæ but nevee. This suggests that siitələ (cold) in (68) cannot be a nominal predicate.

Secondly, there is no relative phrase corresponding to (68). Relativisation could not operate on such an embedded sentence except by reducing it to nothing. However, an adverbial may optionally appear in a deep structure like (73), generating a sentence like (74).

- (74) sayibiiriyaavee siitələ yi
 'in Siberia' 'cold' 'is'

(It is cold in Siberia.)

There does exist a relative phrase (75) corresponding to (74).

- (75) sayibiiriyaavee siitələ
 'in Siberia' 'the cold'

(the cold in Siberia)

This again suggests that siitələ (cold) cannot be a predicative nominal, as relativisation is formulated to apply only to non-predicative nominals (see Ch. 3).

Modals, Perfectives and Progressives

In the phrase structure expansion of VP no elements 'Modal', 'Perfective' or 'Progressive' were introduced. Modal constructions

- (79) a *aṇḍēlaa padma
'having cried' 'Padma'
- b aṇḍēlaa innē padma
'having cried' 'being' 'Padma'

(Padma, who has cried)

It was noted earlier that for most sentences with predicative adverbials, the corresponding relative phrases obligatorily contained the in/tiye Copula. This suggests that progressive and perfective elements in Sinhalese should be analysed as adverbials. For the present a rule like (80) can be postulated to account for these forms.

$$(80) \quad \text{Adv} \quad \longrightarrow \quad \text{Verb Root} + \left\{ \begin{array}{l} \text{Perfective} \\ \text{Progressive} \end{array} \right\}$$

However, in Chapter 10, I discuss at some length other possible derivations of these elements.

Irregular Sentences

There exists in Sinhalese a small group of 'weather' verbs like vahinēvaa (It is raining), paayēnēvaa (It has stopped raining or There is a drought), gorevenēvaa (There is thunder), viduli koṭṭēnēvaa (There is lightning), which in themselves constitute a complete sentence. Such sentences must be subjectless in deep structure, and hence cannot be generated by the phrase structure rules. I will not examine such sentences in this study, and the

phrase structure component will not account for them.⁶

Determiners

Determiners are introduced in the phrase structure rules (9), (10), (11) and (12), repeated here for convenience.

- (9) NP \longrightarrow Det + N
- (10) Det \longrightarrow $\left\{ \begin{array}{c} \text{Def} \\ \text{Indef} \end{array} \right\}$
- (11) Def \longrightarrow \emptyset
- (12) Indef \longrightarrow $\left\{ \begin{array}{c} \underline{k} \\ \underline{\emptyset} \end{array} \right\}$, where k is selected for singular nouns, and $\underline{\emptyset}$ for all others.

Taking a single noun, say laməya (child), we see that it occurs in subject/position in (81)–(83) in the following forms:

- (81) laməyek aṁDenəvaa
'a child' 'is crying'
- (A child is crying.)
- (82) laməya aṁDenəvaa
'the child' 'is crying'
- (The child is crying.)
- (83) lamayi aṁDenəvaa
'children' or 'are crying'
'the children'

(Children are crying or The children are crying.)

(83) demonstrates that plural nouns are not distinguished

6. The irregularity of such verbs does not seem peculiar to Sinhalese only. D.T. Langendoen (1966), p. 211, discussing the idiosyncrasies of constructions in English with the expletive 'it', discusses in this connection verbs designating meteorological phenomena.

in form with respect to the definite-indefinite distinction. Several studies of Colloquial or Spoken Sinhalese take note of this fact.⁷ However, I postulate 'Det' (determiner) as an obligatory element for all noun phrases in order to account in a systematic way for the distribution of Demonstrative and K/M particles (discussed in this section) in both singular and plural noun phrases.

Phonologically, there may be more appropriate ways of setting up these particular rules..For instance, it is possible to set up the plural form lamayi (children) as the base form and give rules like the following:

$$\begin{array}{ll}
 \text{Def} & \longrightarrow \left\{ \begin{array}{c} \underline{a} \\ \underline{\emptyset} \end{array} \right\} , \text{ where } \underline{a} \text{ is selected} \\
 & \hspace{15em} \text{for singular, animate} \\
 & \hspace{15em} \text{nouns, and } \underline{\emptyset} \text{ for plural} \\
 & \hspace{15em} \text{nouns.} \\
 \\
 \text{Indef} & \longrightarrow \left\{ \begin{array}{c} \underline{k} \\ \underline{\emptyset} \end{array} \right\} , \text{ where } \underline{k} \text{ is selected} \\
 & \hspace{15em} \text{for singular nouns, and} \\
 & \hspace{15em} \underline{\emptyset} \text{ for all others.}
 \end{array}$$

The original analysis however, makes the point that definite and indefinite determiners are assigned distinctive forms for singular nouns, and this is sufficient for the purposes of this study.

The indefinite determiner k may be variously affixed to the noun stem, with a linking vowel e in animate nouns, e.g. laməyek (a child), or, with a linking vowel a in inanimate nouns, as in atte (branch), attak (a branch) etc. However, these details of the

7. Fairbanks, Gair and de Silva (1968), p. 3, 'the definite-indefinite distinction occurs only in the singular'. Jayawardana (1971), Ch. 1 p. 23, gives a segment-structure rule:

' [+ singular] \longrightarrow [\pm definite] '

phonological component will not be examined here.

Given phrase structure rules like the above, a further Determiner Attachment rule like (84) must operate to postpose and attach the determiner to the noun stem.

(84) Determiner Attachment

$$\begin{array}{rcccl}
 \text{SD :} & X & - & \left\{ \begin{array}{l} \text{Def} \\ \text{Indef} \end{array} \right\} & - & N & - & X & \Rightarrow & \text{OBL} \\
 & 1 & & 2 & & 3 & & 4 & & \\
 \text{SC :} & 1 & & 0 & & 3+2 & & 4 & &
 \end{array}$$

Both indefinite and definite determiners may be used generically, as in one interpretation of the following:

- (85) ballek mas kanəvaa
 'a dog' 'meat' 'eats'

(A dog eats meat.)

- (86) balla sivupaavek (yə)
 'the dog' 'a quadruped-is'

(The dog is a quadruped.)

This generic use of determiners however is not discussed here, and is assumed to need no special rules apart from those already outlined.

Nouns with definite determiners may also appear with various demonstrative particles, as in (87)-(89).

- (87) mee laməya aʔDənevaa
 'this' 'child' 'is crying'

(This child is crying.)

- (88) oyə laməya aḥDenəvaa
'that-near' 'child' 'is crying'
you'

(That child near you is crying.)

- (89) { are } laməya aḥDenəvaa
{ ee }
'that-near' 'child' 'is crying'
neither you
nor me' or 'that-mentioned'

(That child over there is crying, or That child who was mentioned is crying.)

Similarly, indefinite determiners may occur with various 'koyi/mone' particles as in (90)-(95). There exists in Sinhalese a series of koyi/mone forms like kavudə, mokekde, mokakde, monunde, monevaade, all of which are equivalents of the English 'some'. The varying forms are dependent on the specifications of the features [Animate], [Human], [Singular] etc. in the nouns with which they appear. (90)-(95) demonstrate this. There are also a set of question words kavuru (who), mokek (what animal), mokak (what thing) etc. that are phonologically very obviously related to these koyi/mone (hereafter K/M) forms. These are discussed in the section on question sentences in this chapter.

- (90) kavudə laməyek aḥDenəvaa
'some' 'child' 'is crying'

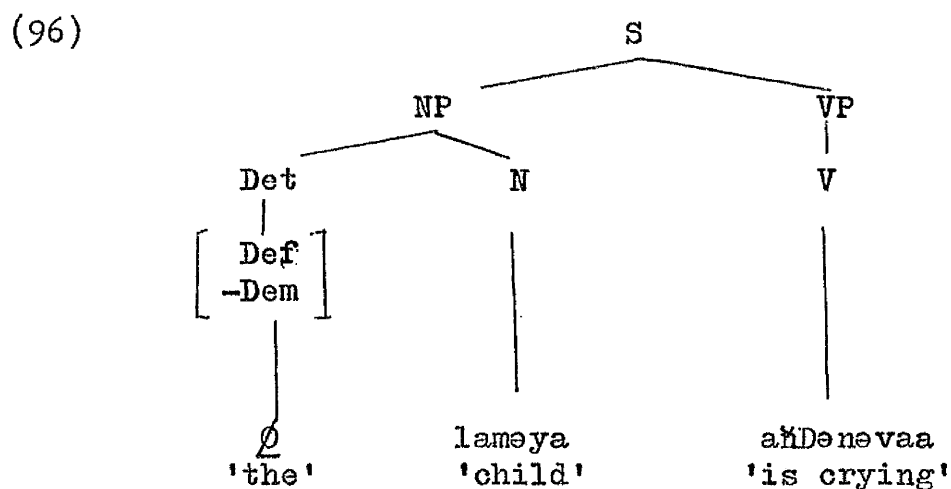
(Some child is crying.)

- (91) mokekde ballek burenəvaa
'some' 'dog' 'is barking'

(Some dog is barking.)

- (92) mokakde potak nætivelaa
 'some' 'book' 'is lost'
- (Some book has been lost.)
- (93) kavude lamayi aḥDenevaa
 'some' 'children' 'are crying'
- (Some children are crying.)
- (94) monunde ballo burenevaa
 'some' 'dogs' 'are barking'
- (Some dogs are barking.)
- (95) monevaade pot nætivelaa
 'some' 'books' 'are lost'
- (Some books have been lost.)

It can now be postulated that all definite determiners are marked for a feature [Demonstrative]. For sentences like (82) the deep structure is (96), and the determiner is marked [- Dem].



Determiner Attachment applies in the usual way to (96). For (87)-(89) however, the definite determiner is marked [+ Dem].

This in turn means that the determiner is marked 'near me' (I), 'near you' (II), or, 'near neither you nor me' or 'aforementioned' (III).⁸ $\left[+ \text{Dem} \begin{Bmatrix} \text{I} \\ \text{II} \\ \text{III} \end{Bmatrix} \right]$ will then be detached from the determiner proper by a rule of 'Demonstrative Particle Segmentalisation' which is a segmentalisation rule of the type proposed in Postal (1966).

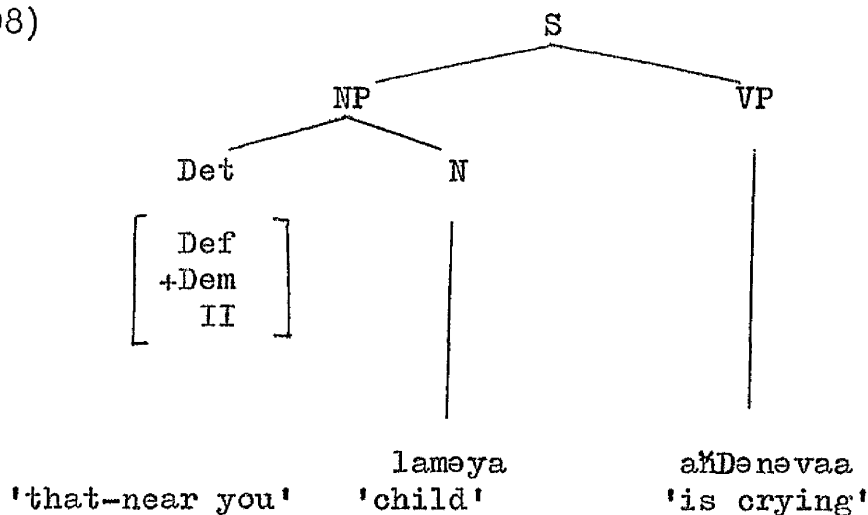
(97) Demonstrative Particle Segmentalisation

$$\begin{array}{lcl}
 \text{SD :} & \text{X} - \left[\begin{array}{c} \text{Det} \\ +\text{Dem} \begin{Bmatrix} \text{I} \\ \text{II} \\ \text{III} \end{Bmatrix} \end{array} \right] - \text{X} & \Rightarrow \text{OBL} \\
 & 1 \qquad \qquad \qquad 2 \qquad \qquad \qquad 3 & \\
 \text{SC :} & 1 \left[+\text{Dem} \begin{Bmatrix} \text{I} \\ \text{II} \\ \text{III} \end{Bmatrix} \right] [\text{Det}] 3 &
 \end{array}$$

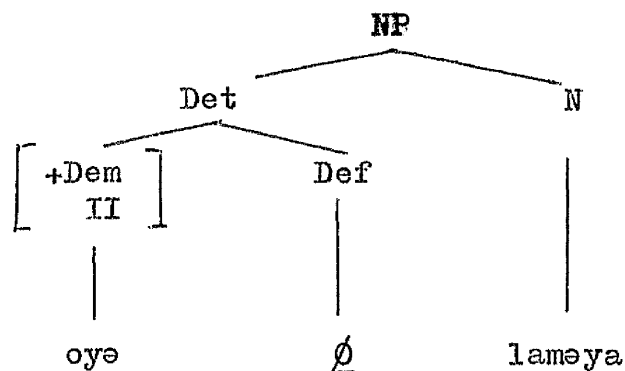
(88) has a deep structure (98). Demonstrative Particle Segmentalisation then derives (99). Determiner Attachment then operates as usual, postposing the definite determiner \emptyset and attaching it to the noun lameya (child). The segmented demonstrative particle oye (that-near you) remains in prenominal position.

8. Gair (1966), p. 44, classifies the demonstrative particles as First Proximal : mee (proximity to the speaker), Second Proximal : oye (proximity to the hearer), Distal : are (away from both speaker and hearer), and Anaphoric : ee (reference to something preceding in the discourse). In fact, the distinction between are and ee is somewhat blurred in current use, and both may generally be used in either the 'near neither you nor me' or 'aforementioned' sense. The symbol 'III' therefore refers to both particles in either sense.

(98)



(99)



The derivation of K/M elements occurring with nouns with indefinite determiners can be given in a similar way. I postulate first that all indefinite determiners are marked for a feature [K/M]. For (81) the indefinite determiner will be marked [-K/M], and for (90)-(95), [+K/M]. (90) therefore has a deep structure (100). A transformational rule like (101) will then apply deriving (102). Again, Determiner Attachment applies leaving only kavudə (some) in prenominal position.

Now consider the following set of sentences. (89) and (90) are repeated for convenience.

- (89) are laməya aʔDənevaa
'that' 'child' 'is crying'

(That child is crying.)

- (103) *kavudə are laməya aʔDənevaa
'some' 'that' 'child' 'is crying'

- (90) kavudə laməyek aʔDənevaa
'some' 'child' 'is crying'

(Some child is crying.)

- (104) are kavudə laməyek aʔDənevaa
'that' 'some' 'child' 'is crying'

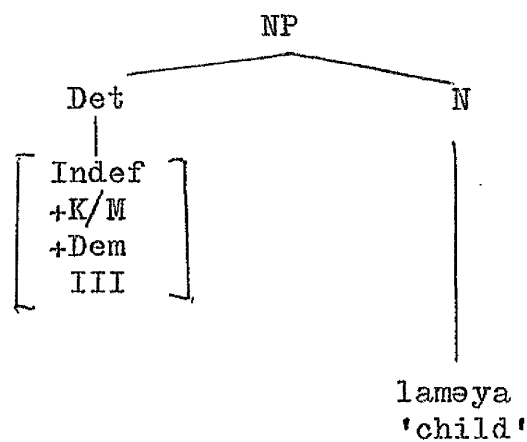
(That particular "some child" is crying.)

- (105) kavudə are laməyek aʔDənevaa
'some' 'that' 'child' 'is crying'

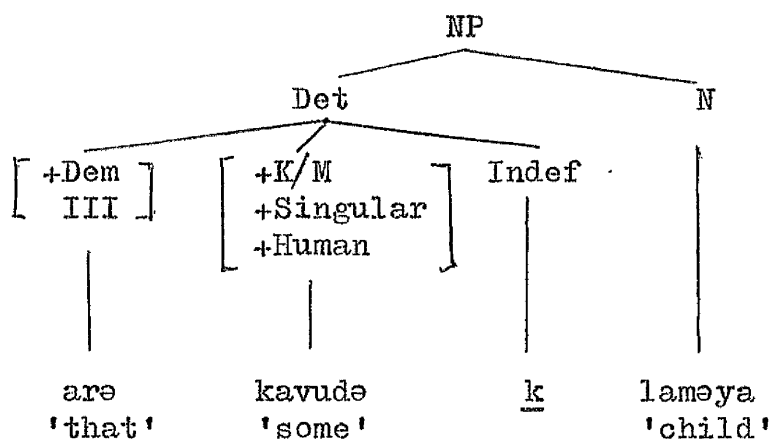
(That particular "some child" is crying.)

It appears from this that while a definite determiner contains only a feature [Dem], an indefinite determiner contains both the features [K/M] and [Dem]. In all the previous examples the indefinite determiner was marked [-Dem]. In (104) and (105) however the determiner is marked [+K/M] and [+Dem]. (104) and (105) are completely synonymous, hence I will set up an identical deep structure (106) to account for the subject NP in both. K/M and Demonstrative Particle Segmentalisation each apply, thus deriving (107). After the relevant rules apply (104) can be derived. A transformational rule like (108) can then be set up to derive (105).

(106)



(107)

(108) Demonstrative Particle Shift

SD :	X	-	[Dem Prt]	-	[K/M Prt]	-	X	⇒	OPT
	1		2		3		4		
SC :	1		3		2		4		

The question now arises as to whether an indefinite determiner may be marked $\begin{bmatrix} -K/M \\ +Dem \end{bmatrix}$. (109) is grammatical.

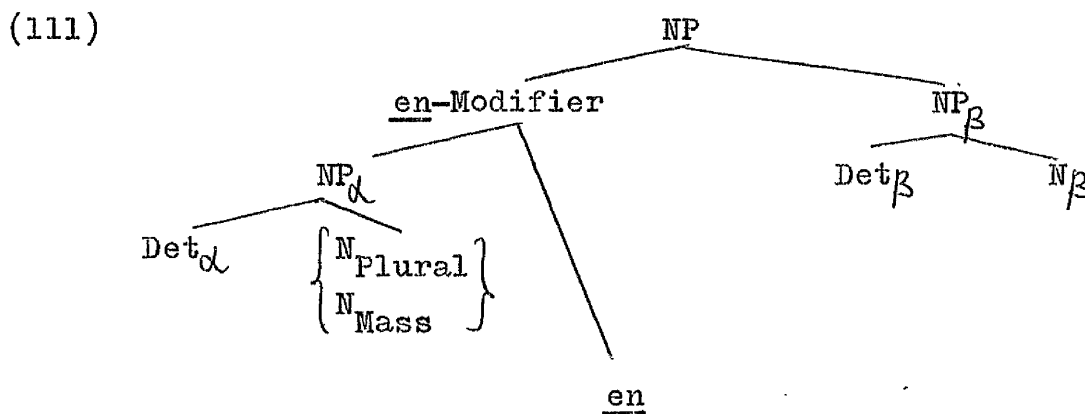
(109) are laməyek aɪDənevaa
 'that' 'child-INDEF' 'is crying'

However its semantic interpretation is 'One of those children is crying' and a paraphrase relation exists between it and (110).

(110) are lamayingen lameyek aMDenevaa
 'those' 'children-of' 'a child' 'is crying'

I claim that (109) is transformationally derived from (110), and that hence, are in (109) is only transformationally attached to lameyek (a child). Since no other semantic interpretation is possible for (109), it is possible to conclude that an indefinite determiner may be marked [+Dem] if, and only if, it is already marked [+K/M].

Returning to pairs of sentences like (109) and (110), we find that there are a number of en-phrase nominal modifiers that are derived by the usual rules of relativisation. The derivation of such phrases will not be discussed in detail here but the underlying structure of a noun phrase containing an en-phrase modifier will in general look something like (111), where NP_{β} refers to something that is either one of or part of the things or thing referred to by NP_{α} .



All the noun phrases in (112)-(114) below have underlying structures like that of (111), and the underlined phrases in each case are the en-Modifier phrases.

- (112) oye baTer rattelen poDDak
 'that' 'butter' 'pound-of' 'a little'

(a little of that pound of butter)

- (113) magee potvælin tunak
 'my' 'books-of' 'three'

(three of my books)

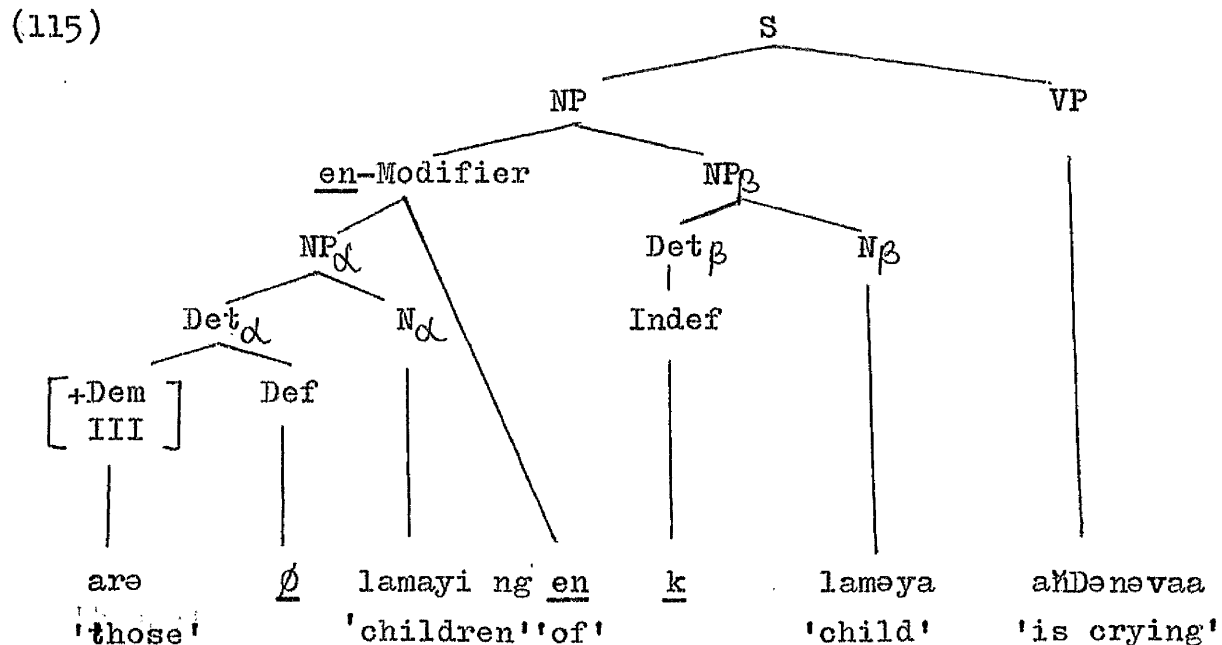
- (114) pol gasvælin hoŋdeme eke
 'coconut' 'trees-of' 'best' 'one'

(the best of the coconut trees)

Given an underlying structure like (111), an optional rule of en-Phrase Reduction may apply in cases where :

$$NP_{\alpha} = \text{Def} + X_{\text{Plural}} \quad \text{and} \quad NP_{\beta} = \text{Indef} + X_{\text{Singular}}$$

(110) has an underlying structure (115).



As stipulated, NP_{β} , laməya (child), refers to one of those referred to by NP_{α} , are lamayi (those children). The condition for en-Phrase Reduction is also met since:

are lamayi = Def + X_{Plural} and laməyek = Indef + $X_{Singular}$

where X = laməya

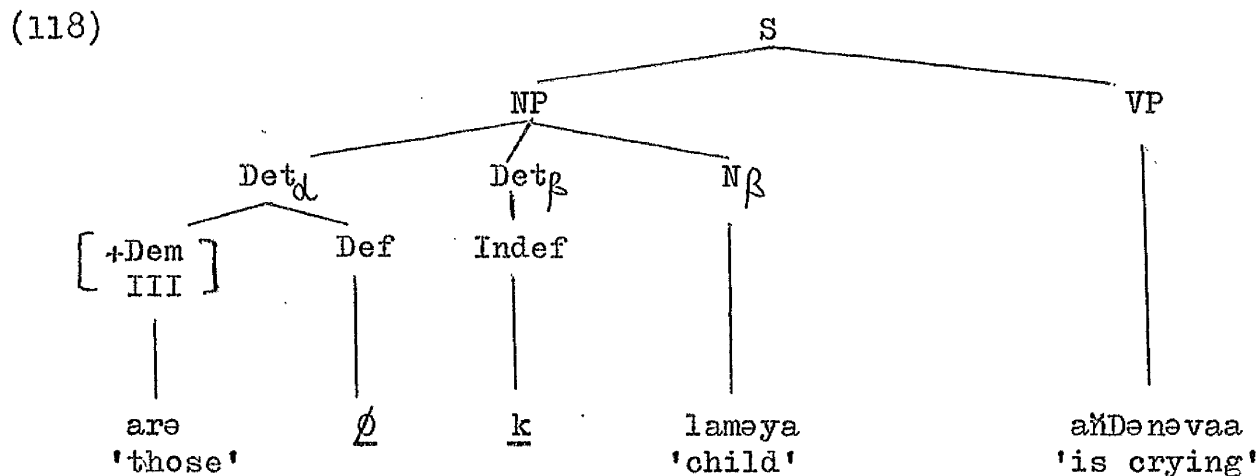
Given an underlying structure (115), the usual rules of Particle Segmentalisation and Determiner Attachment may apply, generating (116).

(116) are lamayingen laməyek
'those' 'children-of' 'a child'

Optionally, Pronominalisation may apply instead, replacing laməya (child) in NP_{β} by ekkenaa (one), thus deriving (117).

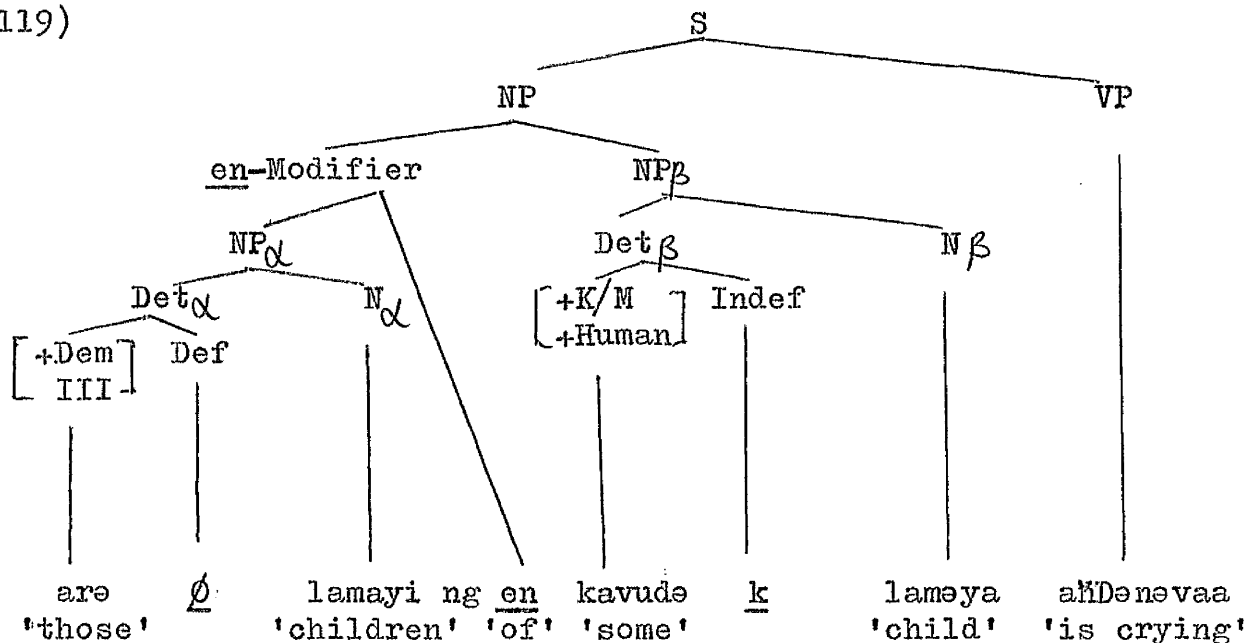
(117) are lamayingen ekkenek
'those' 'children-of' 'one'

Where Pronominalisation does not apply, en-Phrase Reduction may apply optionally. This rule applies by reducing (115) to (118). This is the phrase marker underlying (109).

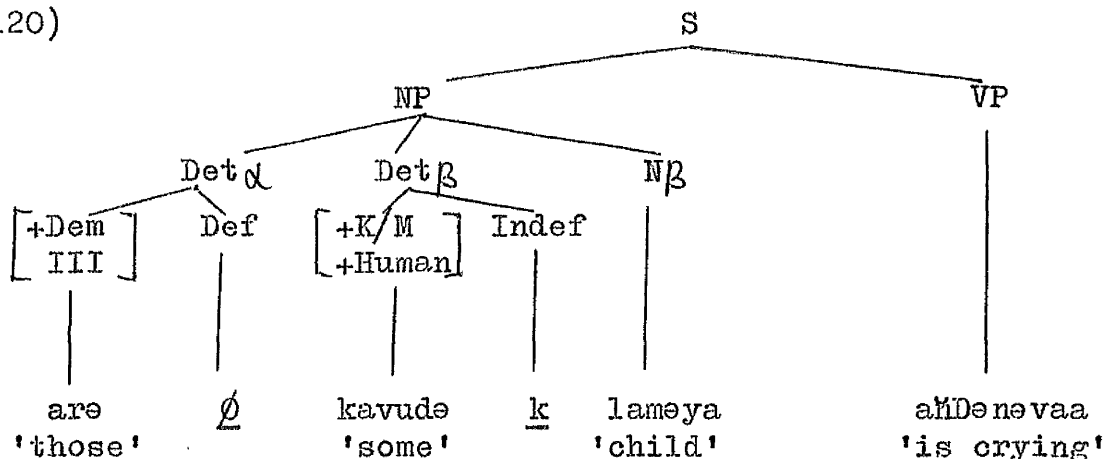


(104) and (105) discussed earlier can now be seen to be ambiguous, having either the interpretation assigned to them earlier, i.e. 'That particular "some child" is crying', or an interpretation in which en-Phrase Reduction has applied. In the latter case (119) underlies both sentences, and en-Phrase Reduction derives (120). After Determiner Attachment (104) may be derived. If Demonstrative Particle Shift also applies, then (105) results. In both cases the semantic interpretation is now, 'Some one of those children is crying'.

(119)

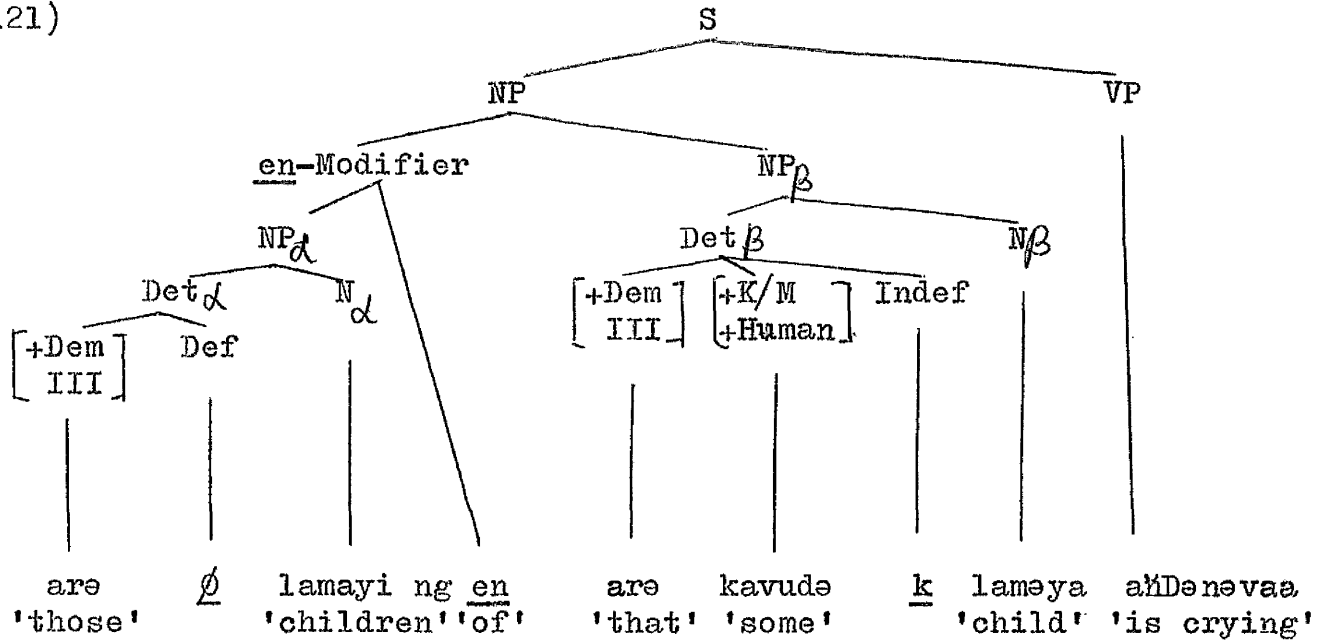


(120)

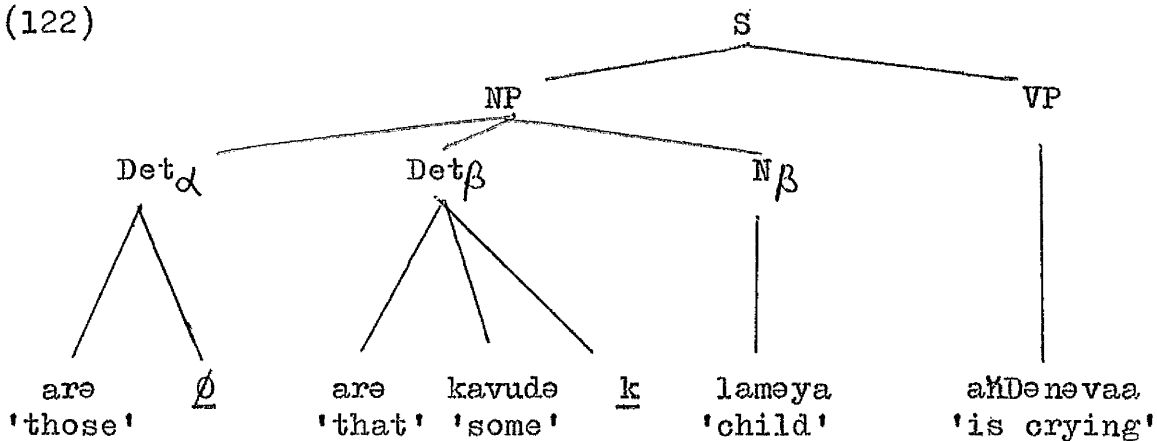


It was noted earlier that where an indefinite determiner is marked [+K/M], it may also be marked [+Dem]. In this case, it should be possible to generate an underlying structure like (121). en-Phrase Reduction then derives (122).

(121)

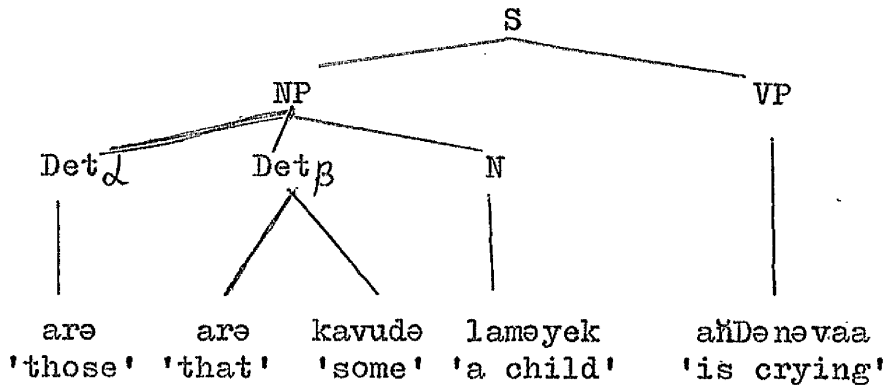


(122)



After Determiner Attachment (123) is derived.

(123)



Now (124), which is the output of (123), is ungrammatical.

(125) however, where Demonstrative Particle Shift has applied, is grammatical.

(124) *are are kavudə laməyek aṇḍenəvaa

(125) are kavudə are laməyek aṇḍenəvaa

The rules that have been postulated are sufficient to explain the existence of (125), but they also generate the ungrammatical (124). In Chapter 8 (17) we again note a similar case in which a sentence generated by the rules is questionable. In both these cases the common feature is the juxtaposition of two identical items, e.g. are in (124). It may be that there exists some rule pertaining to performance in Sinhalese that blocks such cases. If such a rule exists, its precise nature is uncertain, as there are also a large variety of other cases in which such juxtaposition is grammatical.⁹

A further restriction on the use of Demonstrative particles

9. I.P. Jayasekera (1970) gives a large sample of such cases.

also stipulates that the Demonstrative particle in Det_α carry the same feature marking as the Demonstrative particle in Det_β . In (123) both these particles are marked [III]. The same is true of (126). (127) and (128) illustrate the ungrammaticality of sentences in which this restriction is not operative.

- (126) mee kavudə mee laməyek aŋDənevaa
'these' 'some' 'this' 'child' 'is crying'

(This particular "some one of these children" is crying.)

- (127) *mee kavudə are laməyek aŋDənevaa

- (128) *oyə kavudə mee laməyek aŋDənevaa

Negative Sentences

The element 'Neg' is introduced into the phrase structure rules in (2), repeated here for convenience.

- (2) Post S \longrightarrow (Neg) ($\left\{ \begin{array}{c} Q \\ \text{Imp} \end{array} \right\}$)

It accounts for all negative sentences in Sinhalese. The principal types of positive simple sentences in Sinhalese have already been discussed, and (129)-(138) below give the negative counterparts of some of these main types, i.e. of (15), (16), (33), (38), (40) and (42), (52), (54), (65), (67) and (68) respectively.

- (129) padma aŋDanne næ hæ
'Padma' 'is crying' NEG

(Padma is not crying.)

- (130) padma bat kanne næ hæ
'Padma' 'rice' 'is eating' NEG

(Padma is not eating her rice.)

- (131) sunil horek nevee
'Sunil' 'a thief' NEG
(Sunil is not a thief.)
- (132) padma læjjaa næhæ
'Padma' 'shy' NEG
(Padma is not shy.)
- (133) padma atəne næhæ
'Padma' 'there' NEG
(Padma is not over there.)
- (134) sunil horek venne næhæ
'Sunil' 'a thief' 'is becoming' NEG
(Sunil is not becoming a thief.)
- (135) padma atəneTe venne næhæ
'Padma' 'there-to' 'becomes' NEG
(Padma does not get in there.)
- (136) padma næhæ
'Padma' NEG
(Padma is absent.)
- (137) æksident venne næhæ
'accidents' 'become' NEG
(Accidents don't happen.)
- (138) siitəle næhæ
'cold' NEG
(It is not cold.)

A comparison of the respective positive and negative sentences reveals that the main difference between the two types consists of a difference in the relevant main verbs or predicates. In the negative sentences with a verb, Copula ve or Past tense Copula in/tiye, this appears as aṁDanne næhæ, kānne næhæ etc.

i.e. 'Verb Root + Tense' appears in the 'Incomplete' form, followed by the negative particle naehae. In sentences with Copula yi or Non-Past in/tiye, this Copula disappears completely and the negative particle is attached to the predicative element. For adjectival and adverbial predicates, 'Neg' manifests itself as usual as naehae. In the case of nominal predicates only it appears as nevee. To handle all these cases, a single rule of 'Neg Placement' as in (139) can be set up. Special phonological rules will interpret ' $\left\{ \begin{array}{c} V \\ \text{Pred} \end{array} \right\}$ Incomplete + NEG ' in the relevant way in each particular case.

(139) Neg Placement

$$\begin{array}{ccccccc}
 \text{SD :} & X & - & \left\{ \begin{array}{c} V \\ \text{Pred} \end{array} \right\} & \text{finite} & - & (\text{Neg}) - \left(\left\{ \begin{array}{c} Q \\ \text{Imp} \end{array} \right\} \right) \\
 & 1 & & 2 & & 3 & 4 \\
 & & & & & \Rightarrow & \text{OBL} \\
 \text{SC :} & 1 & & \left[\begin{array}{c} 2 \\ \text{Incomplete} \end{array} \right] & +3 & 0 & 4
 \end{array}$$

Question Sentences

A simple sentence like (18), repeated here for convenience, may have a number of question sentences like (140)-(143) corresponding to it.

(18) padma atəne bat kanəvaa
 'Padma' 'there' 'rice' 'is eating'

(Padma is eating her rice over there.)

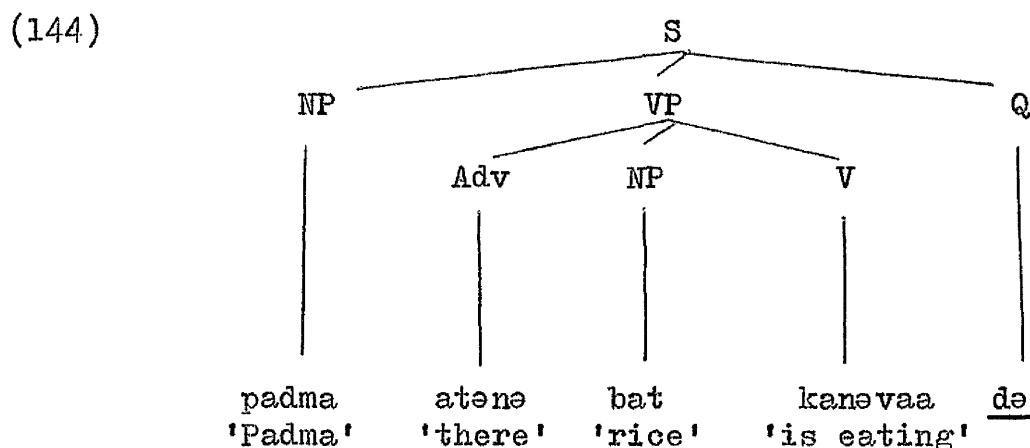
- (140) padma atəne bat kanəvaade
'Padma' 'there' 'rice' 'is eating' Q
(Is Padma eating her rice over there?)
- (141) kavuru atəne bat kanəvaade
'who' 'there' 'rice' 'is eating' Q
(Who is eating rice over there?)
- (142) padma kotəne bat kanəvaade
'Padma' 'where' 'rice' 'is eating' Q
(Where is Padma eating her rice?)
- (143) padma atəne monevaa kanəvaade
'Padma' 'there' 'what' 'is eating' Q
(What is Padma eating over there?)

'Q' is introduced in the phrase structure rule (2),
repeated below.

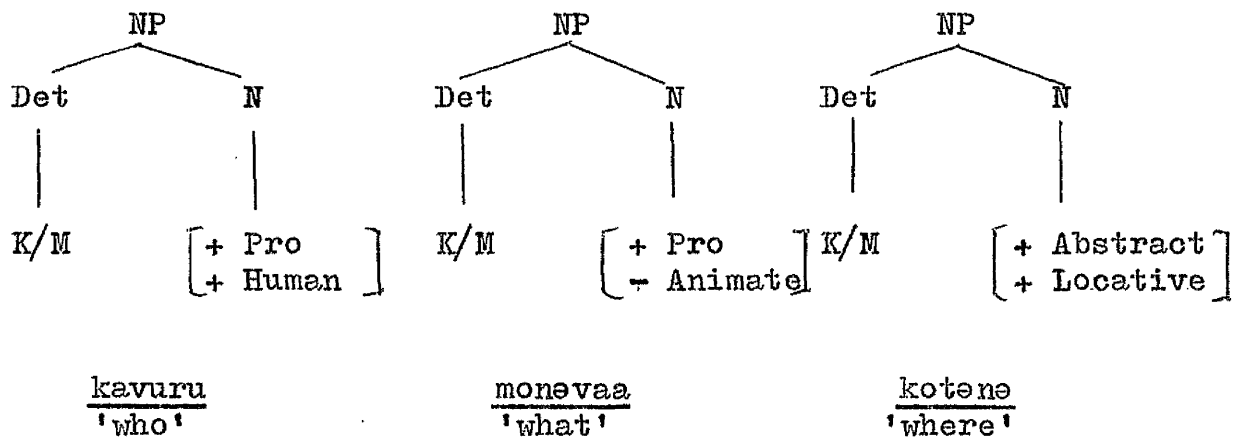
$$(2) \quad \text{Post S} \longrightarrow (\text{Neg}) \left(\left\{ \begin{array}{c} Q \\ \text{Imp} \end{array} \right\} \right)$$

No further rules are required to generate (140)-(143).

(144) is the deep structure of (140), and can be derived by the usual rules, with Q being realised as the interrogative particle də.



(141)-(143) are the Sinhalese equivalents of Wh-questions in English. As noted earlier, there exist in Sinhalese a series of koyi/mone question words, e.g. kavuru (who), mokak (what), monevaa (what), kotene (where), kohome (how) etc. The underlying forms of some of these are illustrated below.

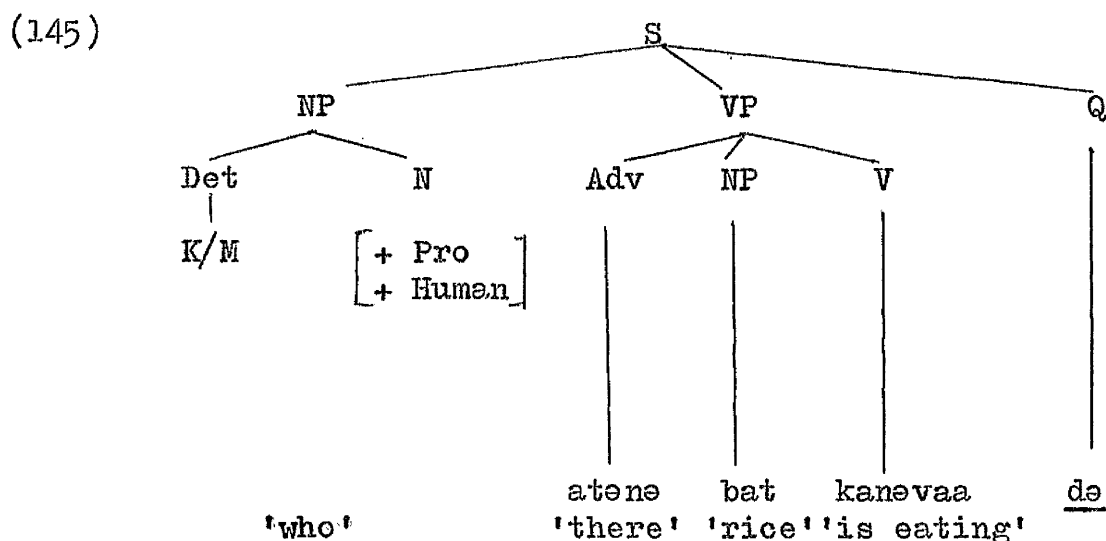


Such noun phrases are not distinguished for definiteness or indefiniteness, and hence the determiner contains a single element, K/M. This distinguishes such noun phrases from the K/M particles discussed earlier, for in these cases the presence of K/M in a determiner was dependent on it being indefinite. Although the obvious phonological relationship existing between these two sets of forms suggests that they may be related at other levels as well, I assume for the present that the relationship is only phonological.¹⁰

10. Such relationships exist in many languages. Bach (1971b), p. 158, quotes the often noted fact that interrogative words and

Consequently, the use of the label K/M refers only to phonological form.

Given a set of question words like the above, (141)-(143) may be generated quite simply. (145) is, for example, the deep structure of (141), which like (140) may be derived by the usual rules.



Sentences like (146) and (147) which contain more than one noun phrase with K/M may be derived similarly.

Footnote 10 contd. from the previous page

indefinite pronouns are often morphologically related or even identical in a wide variety of genetically unconnected languages. He says, 'Thus in Japanese dare ka (ka = question particle) means "someone or other" while dare means "who" and we find essentially the same connection in German, Greek, Amharic, Malay and many other languages.' Precisely this connection exists in Sinhalese too.

- (146) kavuru monevaa kanevaade
 'who' 'what' 'is eating' Q

(Who is eating what?)

- (147) kavuru kaaTe gæ huvaade
 'who' 'who-to' 'hit' Q

(Who hit whom?)

There also exists a question like (148) to which (18) constitutes a possible answer.

- (148) padma monevaa kerenevaade
 'Padma' 'what' 'is doing' Q

(What is Padma doing?)

monēvaa kerēnevāādē (is doing what) may in general be used to question all verb phrases with activity verbs. Other such verb phrases also occur in Sinhalese, e.g. monēvaa venēvaādē (what is happening) may be used to question verb phrases with involitive verbs of the type discussed in Chapter 6.

CHAPTER 3

RELATIVISATION

This chapter deals with a set of nominal modifiers in Sinhalese like the underlined phrases in (1) - (5).

- (1) bat kane lamayi
'rice' 'eating' 'children'
(the children who are eating rice)
- (2) poDi laməya
'small' 'the child'
(the small child)
- (3) laməya kane bat
'the child' 'eating' 'rice'
(the rice that the child is eating)
- (4) gaha yaTe bat kæ æ və laməya
'the tree' 'under' 'rice' 'ate' 'the child'
(the child who ate his rice under the tree)
- (5) bat kane mame
'rice' 'eating' 'I'
(I, who eat rice)

It can be seen that these modifiers contain all types of constituents that appear in sentences, noun phrases, verbs, adjectives and adverbials. The verbs in these may be Past or Non-Past in tense, as in (1) and (4). In addition, the noun phrases to which the modifiers are attached stand in varying relationships to them. In (1),

lamayi (children) is understood as the subject of the action designated by the modifier, but in (3), bat (rice) is understood as the object. Hence, these modifiers exhibit much of the internal structure of a sentence.

Transformational literature contains a large number of references to the process of relativisation, by which sentences are embedded in noun phrases to form various types of nominal modifiers. A sample of such references is given below.

" . . . WH-transforms of assertions will have just the right form for Relative Clauses. We need only permit the insertion of such a WH-transform on a certain nominal after any occurrence of that same nominal in any sentence".¹

"Most noun modifiers can be accounted for in a generative grammar by three transformational rules. The first of these adjoins a sentence to a noun as a relative clause, and the other two form postnominal and prenominal modifiers by the operations of deletion and order change respectively".

"One sentence may be embedded to another as a relative clause if the two sentences share a noun phrase, as Harris and many others have pointed out".²

"In many languages (I should be bold and say 'all') there are transformations which operate on two sentences to embed a version of one sentence into the other as a modifier of a 'word' which occurs in both of the underlying sentences. In English such transformations yield sentences with relative clauses, attributive adjectives, possessive constructions,

1. R.B. Lees (1960), Ch. 3 p. 86.

2. C.S. Smith (1964), p. 37 and p. 39 respectively.

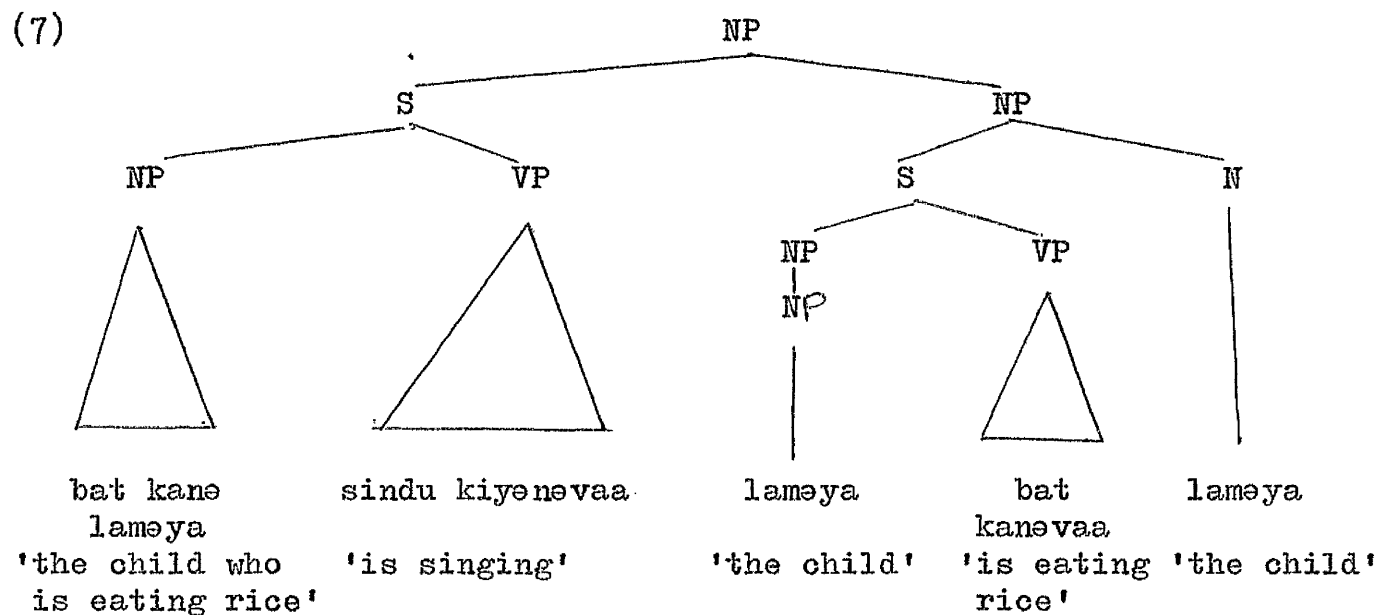
and a few other types . . . "3

In Sinhalese too, there appears to be a process of relativisation by which sentences embedded in noun phrases form prenominal modifiers of the types illustrated in (1)-(5). In the case of restrictive relatives as in (1)-(4), I will assume that the embedded sentences are introduced by a phrase structure rule like (6).

$$(6) \quad \text{NP} \longrightarrow \text{S} + \text{NP}$$

For appositive relatives like that in (5), I will argue that such modifiers are introduced transformationally into noun phrases from underlying conjunctions.

(6) is one of the recursive rules of the grammar, and generates underlying structures like (7), in which there is multiple embedding.



A deep structure like (7) will result in a surface structure (8).

- (8) sindu kiyenə bat kanə laməya
 'singing' 'rice' 'eating' 'the child'

(the child who is eating rice who is singing)

Theoretically, (6) allows for an infinite number of sentences to be embedded in a single NP node.

In constructions like (1)-(4), relativisation appears to operate by deleting an identical occurrence of a noun in the embedded sentence, and converting the main verb or predicate to its 'Modifier' form. In the case of main verbs like kanəvaa (eat), the Modifier form is kanə (eating), where the vaa suffix is deleted. The Non-Past Modifier forms inne, tiyenə and venə of the in/tiye and ve Copula are similarly derived. In the case of predicates with the yi Copula, yi is deleted.

Two transformational rules like (9) and (10) are sufficient to account for these processes. Further phonological rules will then adjust $\begin{bmatrix} V \\ \text{Pred} \end{bmatrix}$ appropriately.

(9) Relative Phrase Formation

SD : X - [[X - NP - X]_S - NP]_{NP} - X \Rightarrow OBL

 1 2 3 4 5 6

SC : 1 2 0 4 5 6

Condition : 3 = 5

I have not been able to find adequate data to suggest that a similar situation exists in Sinhalese. In appositive relatives with definite noun phrases as in (15) it is clear that the noun avve (sun) must be assigned a definite determiner in both its occurrences. This follows from the fact that such noun phrases name uniques, and cannot in this context, take an indefinite determiner.

- (15) haemedaame dækkæ avve agee dæ nuyi
'everyday' 'saw' 'the sun' 'of value' 'now-is'

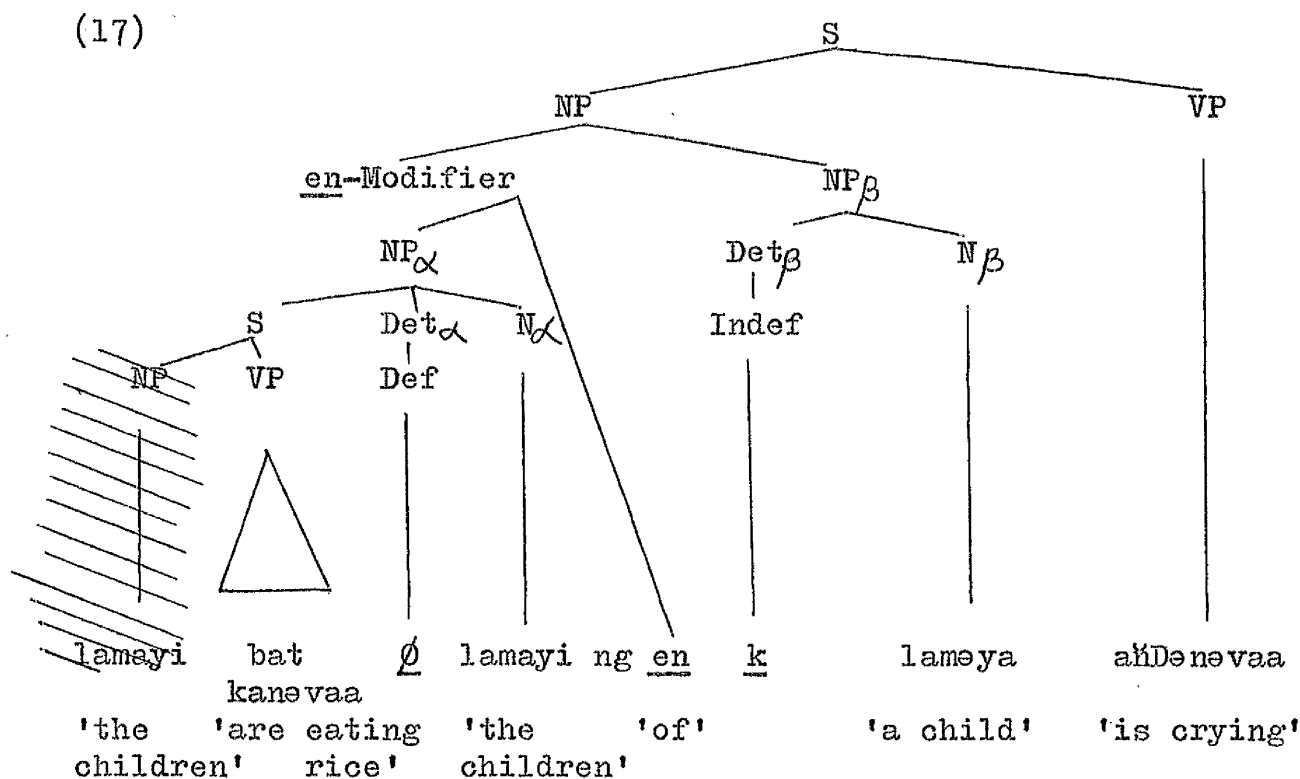
(It is now that we appreciate the sun, which we used to see everyday.)

For appositive relatives with indefinite noun phrases the situation is not so clear. In restrictive relatives as in that underlined in (16) it is clear that in such contexts noun phrases may be assigned both indefinite and definite determiners. This is seen by the occurrence of the indefinite noun phrase avvak (a sun) in the same sentence. Hence in such cases, it is possible that the noun modified by the relative phrase may be assigned either identical or different determiners in the matrix and constituent sentences. If or when it can be shown that the determiners must be different, then Relative Phrase Formation will delete an identical noun irrespective of the difference in determiner. In such a case, the condition for Relative Phrase Formation will no longer be $3=5$, but $N_3=N_5$.

- (16) engalantee avvak tibunaatæ eeke lankaavee avve
'in England' 'a sun' 'is-although' 'it' 'Ceylon's' 'sun'
vagee nevee
'like' NEG

(Although there is a sun in England, it is not like the Ceylon sun.)

Returning to (12), we find that it is ambiguous. Under one interpretation, it has a deep structure (14). Under its second interpretation, it has a deep structure (17).



(19)-(21) are derived from deep structures in which the determiner contains a Demonstrative or K/M particle as well.

- (19) bat kanə are laməya aḥDənevaa
'rice' 'eating' 'that' 'child' 'is crying'

(That child who is eating its rice is crying.)

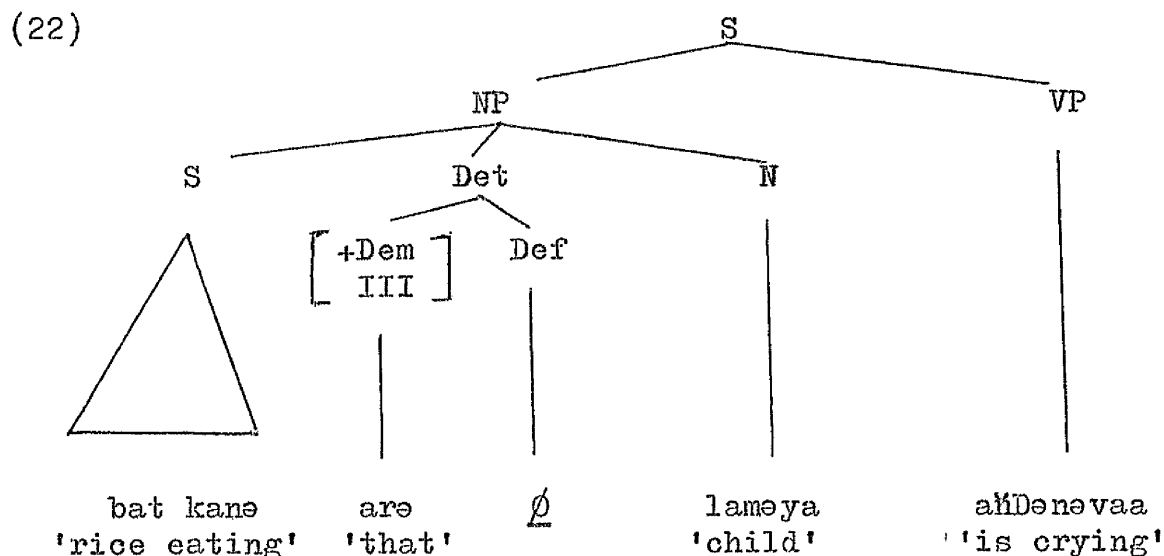
- (20) bat kanə kavudə laməyek aḥDənevaa
'rice' 'eating' 'some' 'child' 'is crying'

(Some child who is eating its rice is crying.)

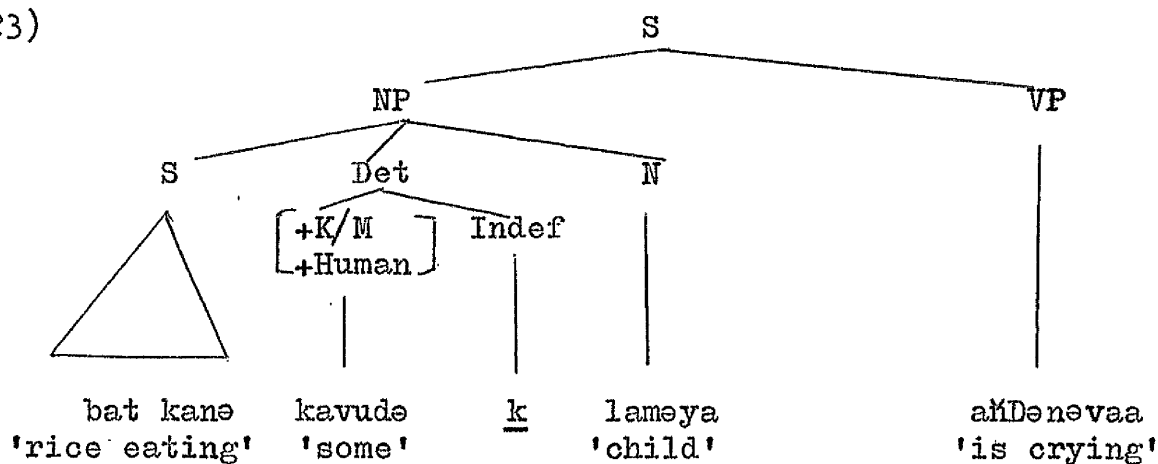
- (21) bat kanə are laməyek aḥDənevaa
'rice' 'eating' 'those' 'child' 'is crying'

(One of those children who are eating their rice is crying.)

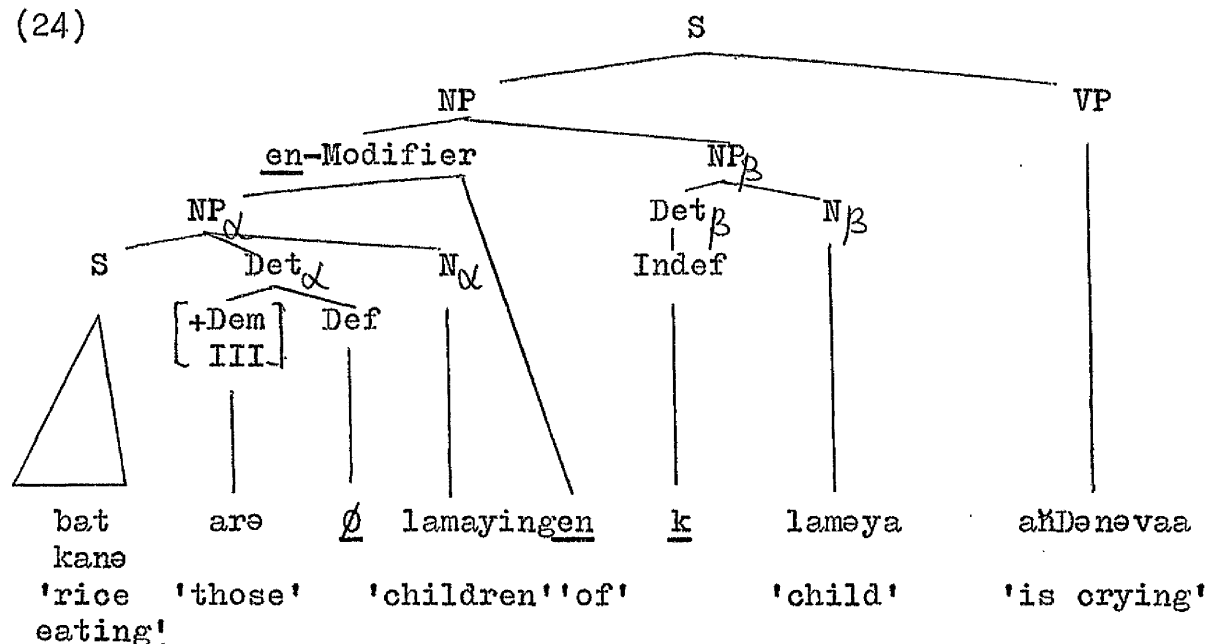
Intermediate phrase markers (22), (23) and (24) respectively underlie these.



(23)



(24)



In the discussion of determiners it was stipulated that the indefinite determiner in NP_β in deep structures like (24) could, as usual, be marked [+K/M] (see Ch. 2 (119)). If in (24), Det_β was marked [+K/M], a terminal string like (25) would be generated.

(25) bat kanə are kavudə laməyek aMDənəvaa

The semantic interpretation of (25) should be 'Some one of those children who are eating rice is crying'. However, the only interpretation under which it is grammatical is 'That particular "some child", who is eating rice, is crying'. Hence, it is necessary to postulate a restriction suppressing a K/M element in Det_β when NP_α contains an embedded sentence, if en-Phrase Reduction is to apply. If it does not apply, the K/M element is not suppressed, and (26) is derived.

- (26) are bat kanə lamayingen kavudə laməyek
 'those' 'rice' 'eating' 'children-of' 'some' 'child'

 aḥDənevaa
 'is crying'

(Some one of those children who are eating rice is crying.)

Now, there exists a set of sentences (27), (28) and (29) which are fully synonymous with (19), (20) and (21) respectively.

- (27) are bat kanə laməya : aḥDənevaa
 'that' 'rice' 'eating' 'child' 'is crying'

(That child who is eating its rice is crying.)

- (28) kavudə bat kanə laməyek aḥDənevaa
 'some' 'rice' 'eating' 'child' 'is crying'

(Some child who is eating its rice is crying.)

- (29) are bat kanə laməyek aḥDənevaa
 'those' 'rice' 'eating' 'child' 'is crying'

(One of those children who are eating their rice is crying.)

The deep structures underlying these must therefore be (22), (23) and (24) respectively. All three may be derived quite simply by setting up a rule of Determiner Particle Shift which shifts either

a Demonstrative or K/M particle to the left of a relative. This rule is distinct from Demonstrative Particle Shift (Ch. 2 (108)) which positions a Demonstrative particle with respect to a K/M particle. Determiner Particle Shift positions both Demonstrative and K/M particles with respect to an embedded sentence.

(30) Determiner Particle Shift

SD :	X	-	S	-	Det Prt	-	N	-	X	\Rightarrow	OPT
	1		2		3		4		5		
SC :	1		3		2		4		5		
Condition :	2-4 is a NP										

In (31), the subject NP contains an embedded sentence, and Demonstrative and K/M particles.

- (31) bat kanə are kavudə laməyek aḥDənəvaa
 'rice eating' 'that' 'some' 'child' 'is crying'

(That particular "some child who is eating rice" is crying.)

Both (32) and (33) are paraphrases of (31). In (32) Determiner Particle Shift has moved both Demonstrative and K/M particles to the left of the relative. In (33) Demonstrative Particle Shift has also applied, further interchanging the positions of are (that) and kavudə (some).

- (32) are kavudə bat kanə laməyek aḥDənəvaa
 'that' 'some' 'rice' 'eating' 'child' 'is crying'

- (33) kavudə are bat kanə laməyek aḥDənəvaa
 'some' 'that' 'rice' 'eating' 'child' 'is crying'

All the embedded sentences discussed so far have had verb phrases expanded by the rule $VP \longrightarrow NP + V$. In (34) the verb phrase contains only a verb.

- (34) aḥDene laməya gedərə yanəvaa
'crying' 'child' 'home' 'is going'

(The child who is crying is going home.)

Where the determiner contains a demonstrative element (35) should be generated. But (35) is ungrammatical. Where Determiner Particle Shift applies however, the grammatical (36) is derived.

- (35) *aḥDene are laməya gedərə yanəvaa
'crying' 'that' 'child' 'home' 'is going'

- (36) are aḥDene laməya gedərə yanəvaa
'that' 'crying' 'child' 'home' 'is going'

(That child who is crying is going home.)

(37), (38) and (39) demonstrate that the same situation exists when the noun head of the relative phrase is indefinite.

- (37) aḥDene laməyek gedərə yanəvaa
'crying' 'child' 'home' 'is going'

(A child who is crying is going home.)

- (38) *aḥDene kavudə laməyek gedərə yanəvaa
'crying' 'some' 'child' 'home' 'is going'

- (39) kavudə aḥDene laməyek gedərə yanəvaa
'some' 'crying' 'child' 'home' 'is going'

(Some child who is crying is going home.)

In the discussion of appositive relativisation it will be seen that (35) and (38) are grammatical under an appositive

interpretation, but under a restrictive interpretation they are ungrammatical.

Turning to sentences in which the verb phrase consists of an adjectival predicate we find that a similar situation obtains there. (40) is such a sentence.

- (40) poDi laməya aŋDenəvaa
 'small' 'the child' 'is crying'

(The small child is crying.)

(41) and (42) illustrate the cases in which the determiner contains a particle.

- (41) *poDi arə laməya aŋDenəvaa
 'small' 'that' 'child' 'is crying'

- (42) arə poDi laməya aŋDenəvaa
 'that' 'small' 'child' 'is crying'

(That small child is crying.)

Hence a constraint which makes Determiner Particle Shift obligatory seems to exist in cases where the sole (remaining) constituent in the relative is the Modifier form of a verb or an adjectival predicate. That this constraint is not determined by the length of the verb or adjective can be seen by substituting ævidinə (walking), nidaavæTənə (falling asleep), kammæli (lazy), kasilibisili ('busy-body'ish) etc. for poDi (small) in (41) and (42) respectively. (41) still remains ungrammatical, and (42) grammatical.

Some of these will be grammatical when given an appositive interpretation, but they are clearly not grammatical here. Hence,

whenever a restrictive relative contains a single constituent, either the Modifier form of a verb, or an adjectival predicate, Determiner Particle Shift is obligatory.

Where the predicate of an embedded sentence contains a noun phrase, relativisation cannot apply. This blocks ungrammatical sentences like (43).

- (43) *horek laməya aḥḍenevaa
 'a thief' 'the child' 'is crying'

(The child who is a thief is crying.)

This means that a further condition must be imposed on Relative Phrase Formation, i.e. 'the embedded sentence does not have a nominal predicate'. It is interesting to note that in Literary Sinhalese, the syntax of which differs at various points from that of Colloquial Sinhalese, such structures can be relativised.

In Chapter 2 (45), we noted that in most cases where the predicate of an embedded sentence contains an adverbial, the in/tiye Copula must obligatorily be selected. (44) and (45) below demonstrate that where the determiner of the noun head of such a relative phrase contains a particle, Determiner Particle Shift is as usual optional.

- (44) leDin inne are laməya aḥḍenevaa
 'in illness' 'being' 'that' 'child' 'is crying'

- (45) are leDin inne laməya aḥḍenevaa
 'that' 'in illness' 'being' 'child' 'is crying'

(That child who is ill is crying.)

Where the predicate of an embedded sentence contains only

the Copula, we noted in Chapter 2 for in/tiye (p. 68 (70) and p. 69 (71)) and yi (p. 70) that relativisation may apply only if the predicate contains an optional adverbial constituent. In the case of the ve Copula, (46) demonstrates that relativisation may operate as usual.

- (46) venə væ Də hari pudumayi
 'becoming' 'things' 'very' 'surprising-are'
 (The things that happen are very surprising.)

All the examples discussed so far have illustrated restrictive relativisation. However, relativisation processes in Sinhalese include appositive (or non-restrictive) relativisation as well. I use the terms 'restrictive' and 'appositive' to refer to the traditional distinction between two main types of relativisation. Lees and Smith below define these in terms of the formal properties of the two types in English. Lakoff explains them in functional terms.

"Relative Clause modifiers may be either 'restrictive' or 'non-restrictive', the latter type being set off from the rest of the sentence phonologically by receiving its own separate intonation contour".⁶

"There are two kinds of relative clause: restrictive, with wh directly following the noun, and appositive, with wh separated from the noun by comma or comma intonation".⁷

6. R.B. Lees (1960), Ch. 3 p. 86.

7. C.S. Smith (1964), p. 38.

"The difference in function between restrictive and non-restrictive relative clauses is well-known. As their names suggest, restrictive clauses limit the scope of the noun phrases they are associated with, while non-restrictives do not.

- (75) a. Drug manufacturers who are rich are thieves.
b. Drug manufacturers, who are rich, are thieves.

In (a), 'who are rich' is a restrictive clause; in (b), it is non-restrictive. In (a) we are not talking about all drug manufacturers, only about the rich ones. But in (b) we are discussing all drug manufacturers and are making the additional assertion that they are rich. Note that in (a) we are not asserting that all drug manufacturers are rich".⁸

A similar difference in function can be seen in the relative phrases of (47) and (48).

- (47) bat kane lamayi aḥDenəvaa
'rice' 'eating' 'children' 'are crying'

(The children who are eating rice are crying.)

- (48) bat kane mee lamayi aḥDenəvaa
'rice' 'eating' 'these' 'children' 'are crying'

(These children, who are eating rice, are crying.)

In (47) bat kane (rice eating) is restrictive, and in (48), under one interpretation, it is appositive (a restrictive interpretation is also possible, and will be similar to that given for (19)). In (47) we are not talking about all children, only about those who are eating rice. In (48) we are discussing all 'these children' and are making an additional assertion that they are crying.

The formal properties of appositive relative phrases in

8. G. Lakoff (1966), p. 36.

Sinhalese are discussed below. Appositive relativisation may apply when the shared noun phrase is a proper noun, as in (49).

- (49) allepu gedere inne padma hoñde kelle
 'adjoining' 'house' 'staying' 'Padma' 'good' 'girl'

(Padma, who stays next door, is a good girl.)

(49) may be given a restrictive interpretation as well. In this case it is interpreted 'The particular Padma who stays next door is a good girl', and padma refers to one of a group of individuals having this name.

Appositive relativisation also applies to personal pronouns, as in (50) and (51), to abstract nouns as in (52), to mass nouns as in (53), and to nouns naming 'uniques' as in (15), repeated here for convenience. The appositive relatives are underlined in each case.

- (50) ahake inne maTe karedere keranne epaa
 'aside' 'staying' 'me-to' 'bother' 'do not'

(Don't bother me, who am minding my own business.)

- (51) baDaginne inne api gaene eyaaTe gaanak nae hae
 'in hunger' 'staying' 'us' 'about' 'him-to' 'a care' NEG

(He is not at all concerned about us, who are hungry.)

- (52) hae moome igeneganne artesaastreya maTe pennanne bae hae
 'everyone' 'learning' 'Economics' 'me-to' 'to show' 'impossible'

(I can't stand Economics, which everyone reads.)

- (53) hae medaame kaalaa purudu bat nae tuve
 'everyday' 'having eaten' 'accustomed' 'rice' 'without'
 eyaaTe amaaruyi
 'him-to' 'difficult-is'

(He finds it difficult without rice, which he was accustomed to eating daily.)

- (15) hæ mēdaamə dæ kke avvə agee dænuyi
 'everyday' 'saw' 'the sun' 'of value' 'now-is'

(It is now that we appreciate the sun, which we used to see everyday.)

All such noun phrases, i.e. proper nouns, personal pronouns, abstract and mass nouns, and nouns naming 'uniques' like the sun etc. are, it will be noticed, noun phrases referring to uniquely determined objects. Unlike in the case of such noun phrases, appositive relativisation cannot apply to any noun with a definite or indefinite determiner. Sentences like (11) and (12) discussed earlier are open to restrictive interpretations only.

Appositive relativisation can apply to such nouns if, and only if, the definite and indefinite determiners are marked [+Dem] or [+K/M]. Hence in (48), where the determiner contains a [+Dem] particle mee (these), the sentence is open to both an appositive and restrictive interpretation.

It has been suggested that appositive clauses in English are derived from deep structure conjunctions.⁹ There are two reasons that suggest that appositive phrases in Sinhalese too may be derived thus.

Ross and Lakoff both note that in English, appositive clauses cannot appear after noun phrases whose determiners are 'any',

9. J.R. Ross (1967), Ch. 6 pp. 239-241, and G. Lakoff (1966), pp. 36-42.

'no' etc., and that in these cases, the corresponding conjoined sentences are also impossible. In Sinhalese there exist a set of indefinite pronouns with vat suffixes which occur in certain environments only. I have not made any detailed study of such forms, but it can be noticed that they replace the usual indefinite pronouns in negative sentences. (54)-(56) demonstrate this.

- (54) kavudə aṁDənevaa
'someone' 'is crying'

(Someone is crying.)

- (55) *kavudə aṁDanne næ hæ
'someone' 'is not crying'

- (56) kavuruvat aṁDanne næ hæ
'anyone' 'is not crying'

(No one is crying.)

Now, indefinite pronouns like kavudə (someone) appear in sentences that may be interpreted appositively. They may also appear in the corresponding conjoined structures. (57) and (58) illustrate this.

- (57) bat kanə kavudə (kenek) aṁDənevaa
'rice eating' 'someone' 'is crying'

(Someone, who is eating rice, is crying.)

- (58) kavudə bat kanəvaayi aṁDənevaayi
'someone' 'rice' 'is eating-and' 'is crying-and'

(Someone is eating rice and crying.)

However, when the corresponding vat form of an indefinite pronoun appears with a relative phrase, this phrase may only be interpreted restrictively. (59) is ungrammatical under an appositive

interpretation. In such cases, the corresponding conjoined structure (60) is also ungrammatical. This fact needs to be explained, and an analysis which derives appositive relatives from underlying conjunctions is able to do so.

- (59) *bat kanē kavuruvat aḥDanne naēhaē
'rice eating' 'anybody' 'is not crying'

(*Anyone, who is eating his rice, is not crying.)

- (60) *kavuruvat bat kanēvaayi aḥDanne naēhæyi
'anyone' 'is eating rice-and' 'is not crying-and'

(*Anyone is eating rice and not crying.)

Secondly, in Chapter 9, it is noted that conjoined sentences in Sinhalese may, among other interpretations, be given a symmetric or an asymmetric interpretation. This claims that a sentence like (61) may be understood to mean either that Padma cries and eats her rice simultaneously, or that she first cries, and then eats her rice.

- (61) padma aḥDenēvaayi bat kanēvaayi
'Padma' 'cries-and' 'rice' 'eats-and'

(Padma cries and eats her rice.)

When the sentence is understood symmetrically, an adverbial ee gamanmē (at the same time) may be inserted in the second conjunct. When it is understood asymmetrically, an adverbial issellaa (first) may be inserted in the first conjunct, and another, iiTēpassee (after that) in the second. Now, the appositive phrase in (62) may similarly be understood either symmetrically or asymmetrically.

- (62) aḥDēmē padma bat kanēvaa
'crying' 'Padma' 'rice' 'eats'

(Padma, who cries, eats her rice.)

(62) can be taken to mean something like either 'Padma, who is crying, is eating her rice too', or, 'Padma, who starts off by crying, later eats her rice'. The same adverbials that may be inserted in (61) may be inserted in (62) as well, as (63) and (64) demonstrate.

- (63) aḥDəne padma ee gamanmə bat kanəvaa
'crying' 'Padma' 'at the same time' 'rice' 'is eating'

(Padma, who is crying, is simultaneously eating her rice.)

- (64) issellaa aḥDəne padma iiTəpassee bat kanəvaa
'first' 'crying' 'Padma' 'after that' 'rice' 'eats'

(Padma, who cries first, then eats her rice.)

These adverbials cannot be used with restrictive relative phrases, as seen in (65) and (66).¹⁰

- (65) *aḥDəne laməya ee gamanmə bat kanəvaa
'crying' 'the child' 'at the same time' 'is eating rice'

(*The child who is crying is simultaneously eating his rice.)

- (66) *issellaa aḥDəne laməya iiTəpassee bat kanəvaa
'first' 'crying' 'child' 'later' 'eats rice'

(*The child who first cries later eats his rice.)

issellaa (first) is a time adverbial which when it appears in conjoined structures, is necessarily followed in subsequent conjuncts by other time adverbials like iiTəpassee (after that).¹¹

10. Relative phrases as in (65) and (66) can in fact be interpreted appositively, and this means that the constraint blocking appositive relativisation for noun phrases with definite and indefinite determiners without [+Dem] and [+K/M] features must be relaxed in such contexts.

11. issellaa in other uses however, may be used independently, as in issellaa aḥDəne laməya (the child who is first to cry).

Hence where the relative phrase itself is derived from an embedded conjoined sentence, issellaa and iiTepassee may appear in restrictive relative phrases as in (67).

- (67) issellaa bat kaalaa iiTepassee vature bivve
'first' 'rice' 'ate-and' 'after that' 'water' 'drank'
lameya aṇḌenevaa
'child' 'is crying'

(The child who first ate his rice and then drank some water is crying.)

Again, these are facts that suggest that appositive relatives must be derived from deep structure conjunctions. This data also indicates that it is in fact the first conjunct that is transformationally introduced into a noun phrase in the subsequent conjunct, and not vice versa.

Therefore, a transformational rule (68) can be set up to account for appositivisation in Sinhalese.

(68) Appositivisation

$$SD : \quad [[X - NP - X - \underline{yi}]_S - [X - NP - X - \underline{yi}]_S - S^n]_S$$

1 2 3 4 5 6 7 8 9

⇒ OPT

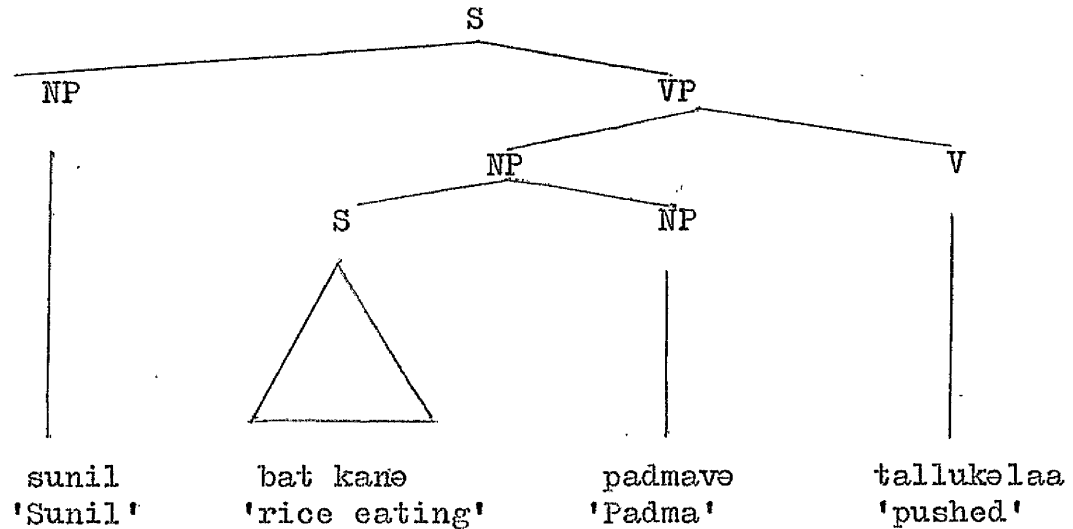
$$SC : \quad 5 \quad [\quad 1 \quad 2 \quad 3 \quad 0 \quad] + 6 \quad 7 \quad 0 \quad 9$$

Condition : a 2=6

b 2 refers to a uniquely determined object or
has a Det marked [+K/M] or/and [+Dem]

Given a deep structure (69) Appositivisation will derive
(70).

(71)



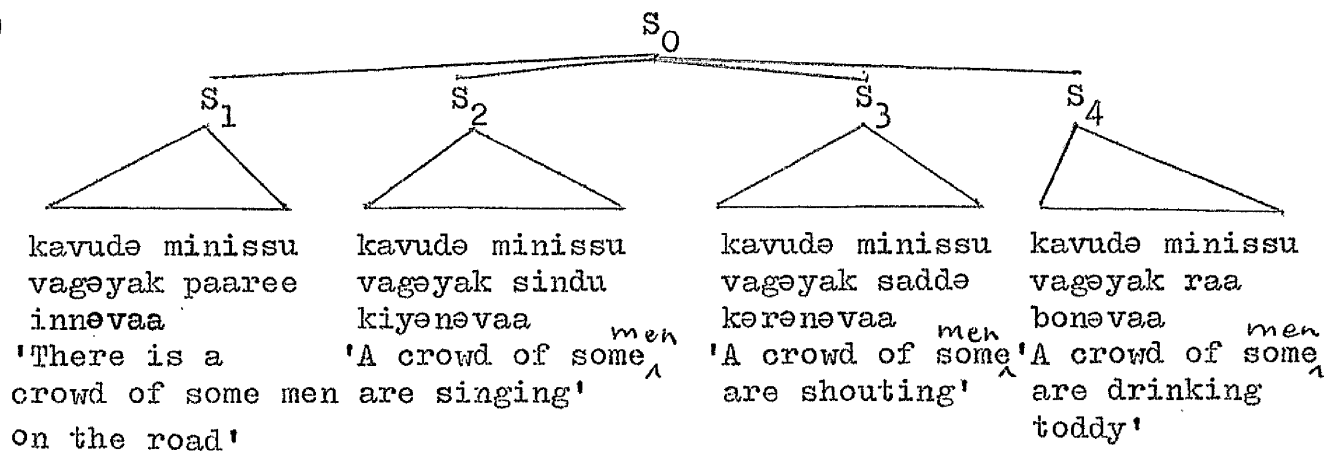
(Sunil pushed Padma, who was eating her rice.)

Where a conjoined sentence contains n conjuncts, all of which contain a common noun phrase, up to $n-1$ of the conjuncts may form **appositive** phrases modifying the shared noun phrase in the n th conjunct. Hence (72) is derived from a deep structure like (73).

- (72) sindu kiyenē sadde kerēnē raa bone kavudē
 'singing' 'noise making' 'toddy drinking' 'some'
 minissu vageyak paaree innēvāa
 'men' 'a crowd' 'on the road' 'be'

(There is a crowd of some singing, shouting, toddy-drinking men on the road.)

(73)



It has been stated that all noun phrases referring to uniquely determined objects, and noun phrases whose determiners are marked [+Dem] or [+K/M] may be appositively relativised. In the case of the former class however, certain restrictions seem to operate in some cases. (74)-(79) below, in which the noun head of the relative phrase is the personal pronoun mame (I) demonstrate this. Other noun phrases referring to uniquely determined objects, e.g. padma, may be substituted with the same results.

- (74) ?bat kanə maTə karədərə kəranne epaa
'rice eating' 'me-to' 'do not bother'

(Don't bother me, who am eating my rice.)

- (75) ?bat kəə ə və maTə nidimatayi
'rice' 'ate' 'me-to' 'sleepy-is'

(I, who have eaten my rice, am feeling sleepy.)

- (76) ?bat kaalaa inne maTə nidimatayi
'rice' 'having eaten' 'am' 'me-to' 'sleepy-is'

(I, who have eaten my rice, am feeling sleepy.)

- (77) bat kaalaa unne maTə nidimate vunaa
'rice' 'having eaten' 'was' 'me-to' 'sleepy' 'became'

(I, who had eaten my rice, became sleepy.)

- (78) bat kakaa inne maTə karədərə kəranne epaa
'rice' 'eating-eating' 'am' 'me-to' 'do not bother'

(Don't bother me, who am in the middle of eating my rice.)

- (79) bat kakaa unne maTə nidimate vunaa
'rice' 'eating-eating' 'was' 'me-to' 'sleepy' 'became'

(I, who was in the middle of eating my rice, became sleepy.)

Of this group of sentences, only (77)-(79) are completely

acceptable in my speech. All these sentences would be acceptable in formal Sinhalese, but in my dialect of Colloquial Sinhalese, (74)-(76) are questionable.¹²

I am not quite certain how these facts can be generalised. It can be noticed that (74) and (75), in which the Modifier form of an ordinary verb is the last item in the relative, are questionable. In (77), (78) and (79), which are all acceptable, the Modifier form of the Copula in/tiye intervenes between an ordinary verb and the noun head. However (76), in which this condition is met, is questionable. In (76), the Non-Past form of the Copula in/tiye, preceded by the perfective form of an ordinary verb forms the last item in the relative. A constraint seems to operate that renders questionable any appositive relative modifying the class of noun phrases in question, in which the last item is the Modifier form of an ordinary verb, or the Non-Past form of in/tiye preceded by a perfective. As it stands, this seems a strange constraint.

Now consider (80)-(82).

- (80) kaaTēvat karədəre kəranne nətuve magee paaDuvee
 'anyone-to' 'bothering' 'without' 'on my own'
 bat kane maTe karədəre kəranne epaa
 'rice eating' 'me-to' 'do not bother'

(Don't bother me, who am eating my rice on my own without bothering anyone.)

12. Other native speakers have varied in their responses to these sentences, but many have agreed that (74)-(76) are either rather 'formal', or unacceptable. One pointed out that substituting the alternative Modifier form kaapu (ate) for kaeəve (ate) in (75) made the sentence more acceptable.

- (81) udenmø bat kæ æ vø mæ nidimatayi
 'very early' 'rice' 'ate' 'me-to' 'sleepy-is'

(I, who had my rice very early, am feeling sleepy.)

- (82) ekolaha hamaree iðdan bat kaalaa inne
 'eleven thirty' 'from' 'rice' 'having eaten' 'being'
mæ nidimatayi
 'me-to' 'sleepy-is'

(I, who finished eating my rice at eleven thirty, am feeling sleepy.)

The appositive phrases in these are derived from the same sentences as in the unacceptable (74)-(76), except for the fact that these sentences are much longer because they contain additional adverbial constituents. It seems therefore, that the additional length of the relative phrase affects the acceptability of the sentences. I do not propose to examine the stress or intonation patterns of such sentences here, but it is possible that these may be significant factors in determining the acceptability of such sentences.¹³ Correspondingly, no significant generalisation can be made here regarding the constraints operating in such instances.

The questionable sentences discussed above become acceptable when a Demonstrative particle is present in the determiner of the noun head. (83) illustrates this.

- (83) bat kanø mee mæ kædø kæranø epaa
 'rice eating' 'this' 'me-to' 'do not bother'

(Don't bother "this" me, who am eating my rice.)

13. Lakoff (1968), pp. 10-11, demonstrates how stress may be a factor determining grammaticality in certain instances of pronominalisation in English.

Similarly, a proper noun with a Demonstrative particle, like oye padmaTe (to that Padma) could substitute for mee maTe (to this me). Second and third person pronouns however cannot accept Demonstrative particles, and therefore, *oye oyaaTe (to 'that' you), *ee eyaaTe (to 'that' him) etc. cannot be substituted. Again, it seems to be the insertion of some additional element that results in the acceptability of sentences like (83). For the present however, the constraints operating in this area are difficult to state.

Now, we noted earlier that sentences like (19) and its paraphrase (27), repeated here for convenience, both contained relative phrases that could be interpreted restrictively. Both (19) and (27) were interpreted as 'That child who is eating its rice is crying'.

(19) bat kane are lameya aḥDenevaa
 'rice eating' 'that' 'child' 'is crying'

(27) are bat kane lameya aḥDenevaa
 'that' 'rice eating' 'child' 'is crying'

By our analysis of appositivisation, (19) is also open to an appositive interpretation, 'That child, who is eating its rice, is crying'. However, (27) cannot be interpreted this way. The ungrammaticality of (84) and (85) illustrate this.

(84) *are bat kane lameya eegamanme aḥDenevaa
 'that' 'rice eating' 'child' 'at the same time' 'is crying'

(That child, who is eating its rice, is crying simultaneously.)

- (85) *are issellaa bat kanə laməya iiTəpassee aŋDənevaa
 'that' 'first' 'rice eating' 'child' 'later' 'cries'

(That child, who first eats rice, later cries.)

Hence, Determiner Particle Shift cannot apply in the case of appositive relatives. Now, we noted for restrictive relatives, that where the relative phrase contained a single constituent, either the Modifier form of a verb or an adjectival predicate, Determiner Particle Shift was obligatory. Some of the examples given were (35), (36), (41) and (42), repeated here for convenience.

- (35) *aŋDəne are laməya gedərə yanəvaa
 'crying' 'that' 'child' 'home' 'is going'

- (36) are aŋDəne laməya gedərə yanəvaa
 'that' 'crying' 'child' 'home' 'is going'

- (41) *poDi are laməya aŋDənevaa
 'small' 'that' 'child' 'is crying'

- (42) are poDi laməya aŋDənevaa
 'that' 'small' 'child' 'is crying'

When these surface structures are given an appositive interpretation, (41) remains ungrammatical, but (35), (36) and (42) are grammatical. Therefore, Determiner Particle Shift seems to be an optional transformation applying to restrictive relatives only, except when the relative phrase contains a single constituent. Where this constituent is an adjectival, it is obligatory for both restrictives and appositives. Where the constituent is the Modifier form of a verb, it is obligatory for restrictives, and optional for appositives.

So far, we have discussed mainly relative phrases modifying the subject NP of a sentence. (86)-(91) demonstrate that relative phrases may modify noun phrases in all positions in a sentence. The positions given are respectively object NP, Te NP, ee NP, en NP, NP + Postposition, and predicative NP positions.

- (86) sunil bat kane lameyave tallukēlaa
'Sunil' 'rice eating' 'child' 'pushed'

(Sunil pushed the child who was eating rice.)

- (87) sunil bat kane lameyate gæ huvaā
'Sunil' 'rice eating' 'child-to' 'hit'

(Sunil hit the child who was eating rice.)

- (88) sunil bat kane lameyagee yaaluvek
'Sunil' 'rice eating' 'child-of' 'a friend'

(Sunil is a friend of the child who is eating rice.)

- (89) sunil bat kane lameyagen vature illuvaā
'Sunil' 'rice eating' 'child-from' 'water' 'asked'

(Sunil asked for some water from the child who is eating rice.)

- (90) sunil bat kane lameya laŋge iŋdægattāa
'Sunil' 'rice eating' 'child' 'near' 'sat'

(Sunil sat down near the child who was eating rice.)

- (91) sunil hari nareke lameyek
'Sunil' 'very bad' 'a child'

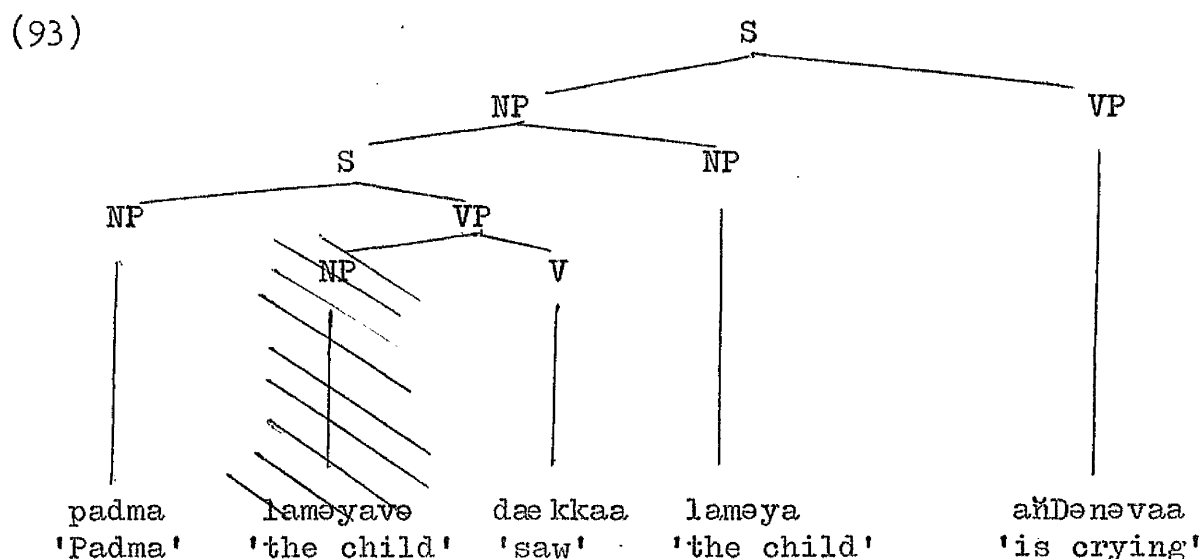
(Sunil is a very bad boy.)

Similarly, in all examples up to now, the shared noun in the embedded sentence has been in subject position. This noun too may occupy a variety of positions, though it is subject to more restrictions than its counterpart in the matrix sentence.

The deep structure of (92) is (93), in which the shared noun is object NP in the embedded sentence. Relative Phrase Formation deletes the whole NP, including the case suffix.

- (92) padma dækkə laməya aḥDenəvaa
 'Padma' 'saw' 'child' 'is crying'

(The child Padma saw is crying.)



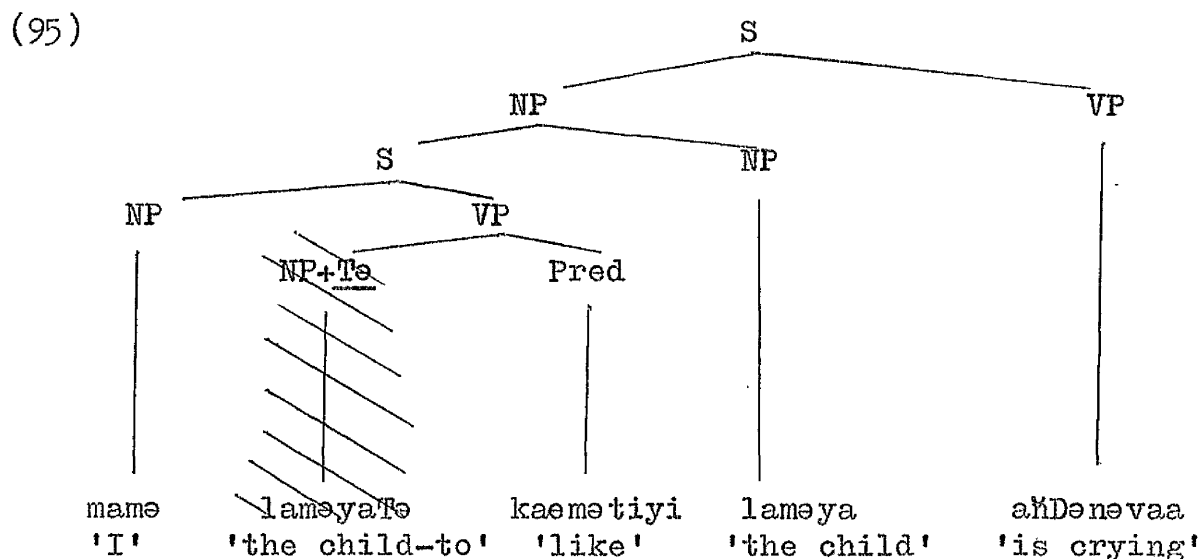
Since the accusative ve suffix is optional, (92) may be ambiguous as to whether Padma saw the child, or the child saw Padma. In my dialect in such contexts, if it is the child who saw Padma, then it is usual for padma to be marked with the ve suffix. In a relative phrase like padma dækkə pote (the book Padma saw), where the object NP of the embedded sentence is an inanimate noun pote (book), a question of ambiguity does not arise, since inanimate noun phrases cannot, in any case, be the subjects of transitive sentences.

The deep structure of (94) is (95), in which the shared

noun is a Te NP in the embedded sentence. Again Relative Phrase Formation deletes the entire noun phrase, including the Te suffix.

- (94) mame kaemeti laməya aḥDenəvaa
 'I' 'like' 'child' 'is crying'

(The child I like is crying.)



However, when the embedded sentence contains several noun phrases other than the deleted Te NP, questionable sentences like (96) are derived.

- (96) ?mame pote dunne laməya aḥDenəvaa
 'I' 'book' 'gave' 'child' 'is crying'

(The child to whom I gave the book is crying.)

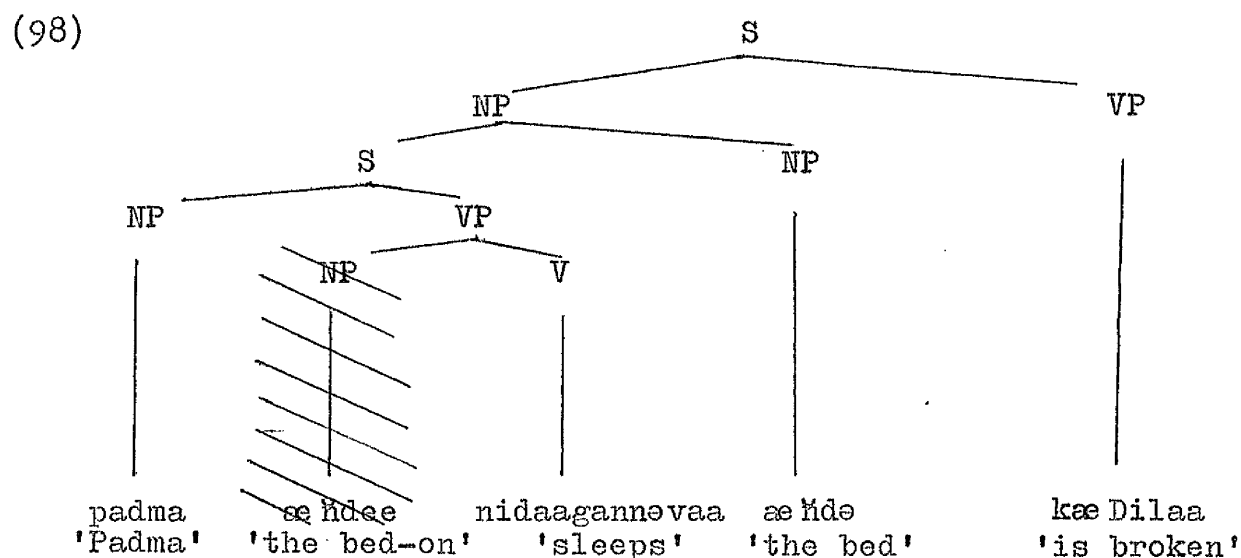
The problem seems to be connected with the difficulty of identifying the position of the deleted noun phrase. In (94), where the cooccurrence restrictions of kaemeti (like) specify that it must appear with a subject NP and a Te NP, and where there is only one

other noun phrase present in the relative phrase, identification is not difficult. In (96), where the relative phrase contains two noun phrases, identification is more complicated. Hence Relative Phrase Formation seems subject in such situations to the more general condition on all transformations, that any deleted item be uniquely recoverable.

A similar situation exists in the case of other noun phrases in the embedded sentence. (97), with deep structure (98), is grammatical, but (99), in which the relative phrase contains an additional noun phrase, is questionable.

- (97) padma nidaagannə æɦdə kəDilaa
'Padma' 'sleeps' 'bed' 'is broken'

(The bed on which Padma sleeps is broken.)

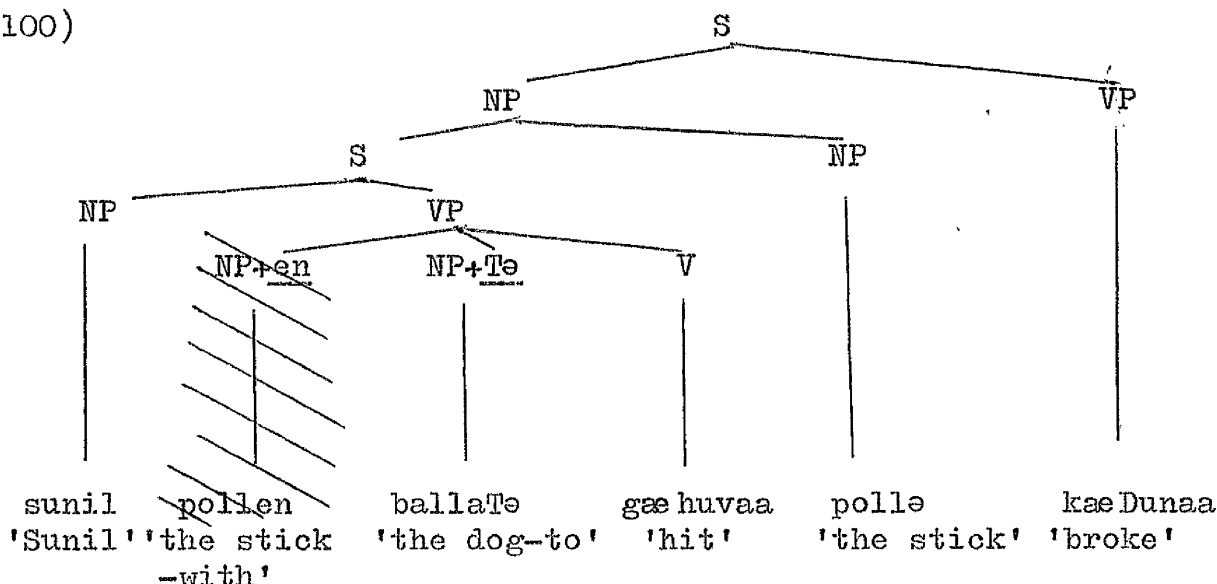


- (99) ?padma laməyave nidikələ æɦdə kəDilaa
'Padma' 'the child' 'put to sleep' 'bed' 'is broken'

(The bed on which Padma put the child to sleep is broken.)

In the case of en NPs, if the shared noun phrase is deleted in a deep structure like (100), the questionable (101) results.

(100)



(101) ?sunil ballaTə gæ huve polle kae Dunaa
 'Sunil' 'the dog-to' 'hit' 'stick' 'broke'

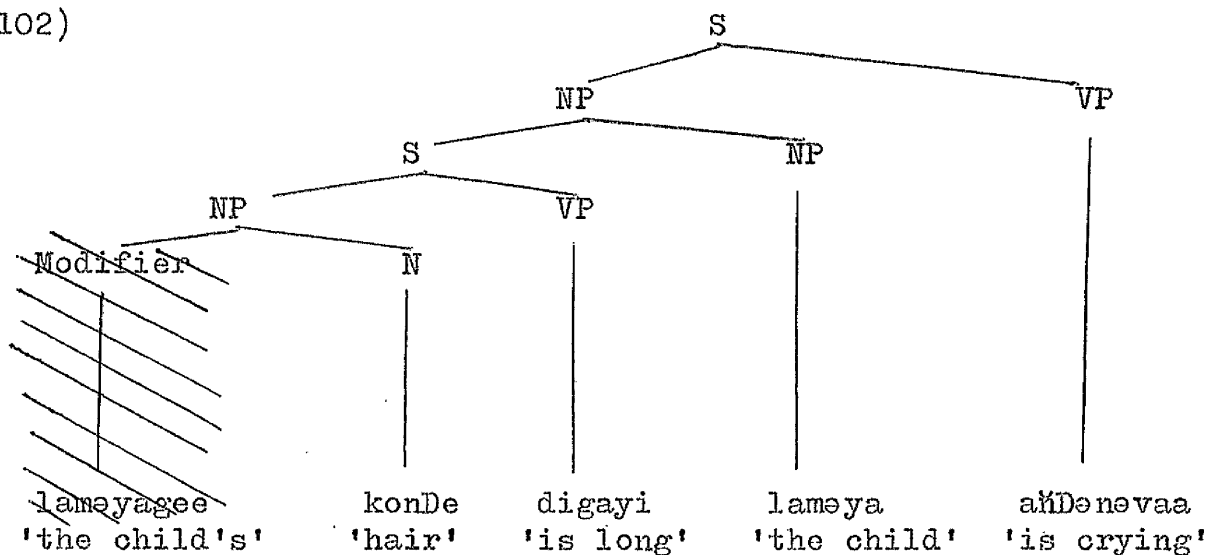
(The stick with which Sunil hit the dog broke.)

On the other hand, a number of familiar household terms in Colloquial Sinhalese are noun phrases containing relatives derived from embedded sentences in which an en NP has been deleted. paan kapene pihiye (the bread knife, literally, 'the bread cutting knife'), bat kane hæñdi (dessert spoons, literally, 'rice eating spoons'), bat bedene hæñdi (table spoons, literally, 'rice serving spoons') are examples. In these cases, the fact that a spoon is commonly used as an instrument with which rice is served or eaten, rather than say, a receptacle into which rice is served, seems to provide a means by which the position and the case suffix of the deleted noun phrase

can be identified.

Where the deleted noun phrase in the embedded sentence is a possessive ee NP, an interesting paradigm of acceptability is encountered. (104)-(111) below are all derived from deep structures similar to (102), which is the deep structure for (103).

(102)



(103) konDe digə laməya aŋDenəvaa
'hair' 'long' 'child' 'is crying'

(The child with long hair is crying.)

(104) date vaeTunə laməya aŋDenəvaa
'tooth' 'fell' 'child' 'is crying'

(The child whose tooth came out is crying.)

(105) kakulə kəDunə laməya aŋDenəvaa
'leg' 'broke' 'child' 'is crying'

(The child whose leg got broken is crying.)

(106) amma mærunə laməya aŋDenəvaa
'mother' 'died' 'child' 'is crying'

(The child whose mother died is crying.)

- (107) ?nangi mærunə laməya aḿDenəvaa
 'younger sister' 'died' 'child' 'is crying'
 (The child whose younger sister died is crying.)
- (108) ?gavumə irunə laməya aḿDenəvaa
 'frock' 'tore' 'child' 'is crying'
 (The child whose frock tore is crying.)
- (109) ??pote nætivunə laməya aḿDenəvaa
 'book' 'got lost' 'child' 'is crying'
 (The child whose book got lost is crying.)
- (110) ???pænsəlee nætivunə laməya aḿDenəvaa
 'pencil' 'got lost' 'child' 'is crying'
 (The child whose pencil got lost is crying.)
- (111) ????balla mærunə laməya aḿDenəvaa
 'dog' 'died' 'child' 'is crying'
 (The child whose dog died is crying.)

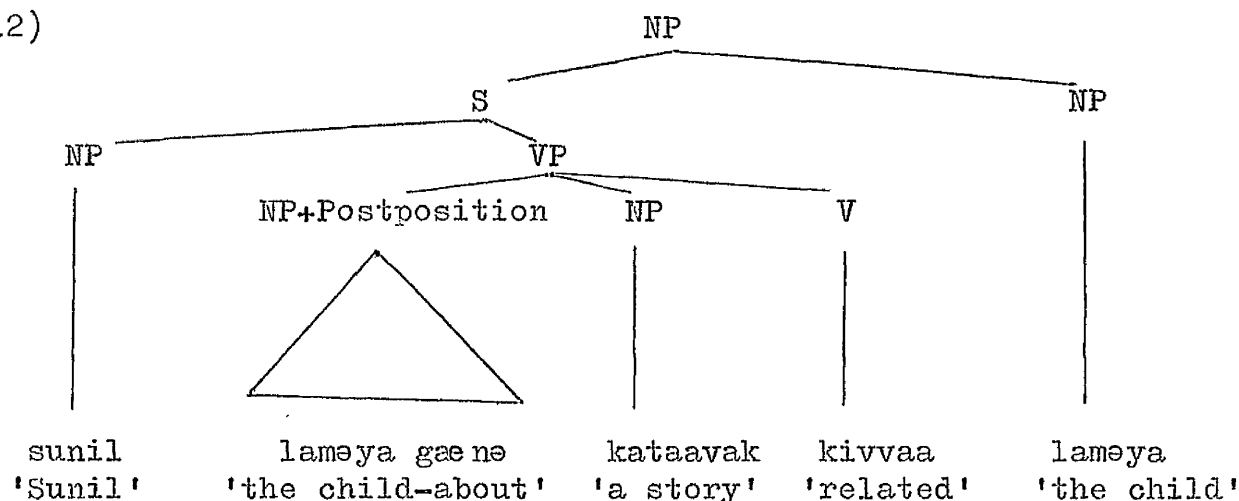
Though identical in constituent structure the subject NPs of these sentences form a hierarchy of acceptability. The hierarchy is given here on the basis of my own dialect, but I have tested these sentences and others like them with several native speakers. There was a great deal of variety in informant responses, and some speakers distinguished as few as two levels of acceptability. There was also much variation in the points at which new levels of acceptability were set up. However, all responses corroborated, by and large, the validity of the ordering of the hierarchy.

An examination of the 'possessed' noun phrase in each case suggests that the restriction operating here may be connected to the concept of alienable vs. inalienable possession in Sinhalese. In the

completely acceptable phrases, the possessed noun is a body part or a parent. At the next level it refers to a sister and a garment of the possessor. At the lowest level represented, it refers to the dog of the possessor. It could be that it is easier to identify the case suffix of the deleted noun phrase as a possessive suffix in cases where the connection between the possessor and the possessed element is felt to be closer.

Whatever the nature of the restrictions operating in such cases, relativisation in Sinhalese can be seen to operate freely when the shared noun phrase is in subject position in the embedded sentence, almost as freely when it is in object position, but subject to a number of constraints when it is in other positions. It may not operate at all when the shared noun phrase is in a postpositional phrase in the embedded sentence. Hence both (113) and (114), which might be possible outputs of (112), are ungrammatical.

(112)

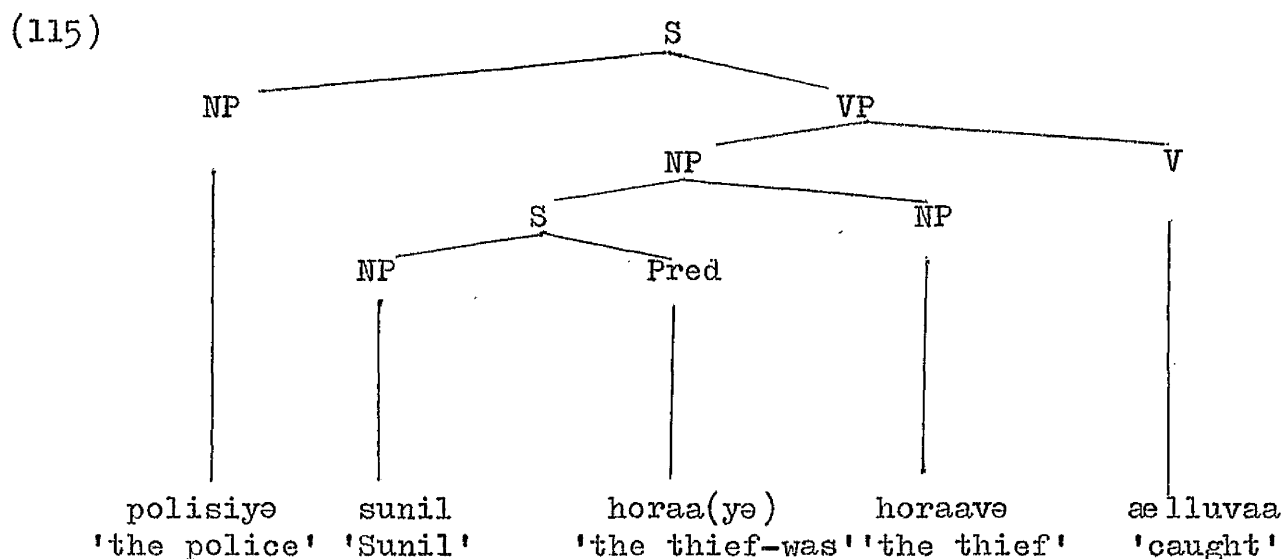


(the child about whom Sunil related a fine story)

(113) *sunil gæne kataavak kivve laməya
'Sunil' 'about' 'a story' 'related' 'child'

(114) *sunil kataavak kivve laməya
'Sunil' 'a story' 'related' 'child'

Relativisation may also not operate if the shared noun phrase is in predicate position in the embedded sentence. This blocks sentences like (116) being derived from deep structures like (115). But such a derivation is in any case prevented by the more general constraint that blocks relativisation when the predicate of the embedded sentence contains a noun phrase (see p. 110 (43)).



(116) *polisiyē sunil hōraave ælluvaā

(*The police caught the thief who Sunil was.)

Thus, relativisation processes in Sinhalese derive several types of nominal modifiers. Both restrictive and appositive relativisation operate in Sinhalese. These processes are subject to various

constraints, some of which are difficult to generalise. Relativisation may apply to all kinds of noun phrases in a matrix sentence. The position of the shared noun phrase in the embedded sentence however is subject to various restrictions.

CHAPTER 4

COMPLEMENT CONSTRUCTIONS

The term 'Complement Constructions' is used here to refer to the two types of complementation distinguished by Rosenbaum as 'Predicate Complement Constructions',¹ i.e. NP and VP complementation. Some other types of complementation referred to by him are relativisation and subordination of various types.² Certain types of such constructions in Sinhalese are discussed in Chapter 3 and Chapter 10.

The underlined portions in (1)-(6) are distinguished here as examples of NP complementation.

- (1) padma aṇḍeṇe eke pudumayi
'Padma' 'crying' 'thing' 'surprising-is'
(It is surprising that Padma is crying.)
- (2) sunil padma aṇḍeṇevaa daekkaa
'Sunil' 'Padma' 'is crying' 'saw'
(Sunil saw Padma crying.)
- (3) sunil padma aṇḍeṇe vittiyē dannevaa
'Sunil' 'Padma' 'crying' 'fact' 'knows'
(Sunil knows that Padma cries.)
- (4) sunil padma aṇḍeṇevaa(yi) kiyenevaa
'Sunil' 'Padma' 'is crying' 'says'
(Sunil says that Padma is crying.)

1. P.S. Rosenbaum (1967), Ch. 2 p. 21.

2. P.S. Rosenbaum (1967), Ch. 2 p. 21.

- (5) sunil padma aḥDenevaa(yi) kiyelaa dannevaa
 'Sunil' 'Padma' 'cries' 'that' 'knows'

(Sunil knows that Padma cries.)

- (6) sunil padma aḥDenevaa(yi) kiyene eke dannevaa
 'Sunil' 'Padma' 'cries' 'that' 'knows'

(Sunil knows that Padma cries.)

That the underlined phrases above must all be instances of NP is clear from the fact that each of them in turn constitute grammatical answers to the questions below. (9) is the appropriate question for (3), and also for (5) and (6). monevaa (what), which is the K/M question word that appears in all these questions, has a feature specification $\begin{bmatrix} +N \\ +Pro \\ -Animate \end{bmatrix}$, and grammatical answers to questions containing it must substitute a similarly marked NP for it.

- (7) monevaa pudume də
 'what' 'surprising' Q
 (What is surprising?)
- (8) sunil monevaa daekkaa də
 'Sunil' 'what' 'saw' Q
 (What did Sunil see?)
- (9) sunil monevaa dannevaa də
 'Sunil' 'what' 'knows' Q
 (What does Sunil know?)
- (10) sunil monevaa kiyenevaa də
 'Sunil' 'what' 'says' Q
 (What does Sunil say?)

The underlined phrases in (1)-(6) also seem to all contain

embedded sentences. The phrase in (1) for instance, contains a noun phrase and a verbal element, which seem to stand in subject - main verb relationship to each other. It would also be possible to substitute a phrase like (11) in (1).

- (11) sunil iiyee padmave daekkə ekə
 'Sunil' 'yesterday' 'Padma' 'saw' 'thing'

(that Sunil saw Padma yesterday)

Such a phrase contains other constituents like an object NP and an adverbial as well. The verbal element in such phrases may appear both with Non-Past and Past tense, as illustrated in (1) and (11) respectively. Hence such phrases exhibit the internal structure of a sentence, and therefore, in addition to being dominated by NP, they must contain embedded sentences.

Some of these phrases, e.g. (1), (3) and (6), also contain an additional noun, ekə (the thing), or vittiye (the fact). vittiye is frequently replaced by other nouns like bave and vage which have approximately the same meaning. Occasionally, other nouns like kataave (the story), særee (occasion), vataave (occasion) also appear in similar constructions, as in:

- (12) eyaa enə kataave mamə visvaase keranne nəhə
 'he' 'coming' 'story' 'I' 'believe' NEG

(I don't believe the story that he is coming.)

- (13) laməya aḥḍənə aḥḍənə særee eyaa duvənəvaa
 'the child' 'crying' 'crying' 'occasion' 'she' 'runs'

(Each time the child cries she goes to him.)

This suggests that a phrase structure rule like (14) must

be set up to generate such noun phrases.

- (14) NP \longrightarrow Det + (S) + N

The NP complements in (2), (4) and (5) however do not contain noun heads. Verbs and other predicative elements in Sinhalese are usually marked to take only a particular complement construction. An adjective like boru (false) may only appear with the type of complement construction in (1) or (6). Hence (15) is grammatical, but not (16).

- (15) padma aṁḍeṇe eke boru
'Padma' 'crying' 'thing' 'false-is'

(It is not so that Padma is crying.)

- (16) *padma aṁḍeṇevaa yi boru
'Padma' 'is crying' 'false-is'

Now consider (17).

- (17) sunil padma aṁḍeṇevaa yi kiyenevaa eet ee(kə) boru
'Sunil' 'Padma' 'is crying' 'says' 'but' 'it' 'false-is'

(Sunil says that Padma is crying but that is not so.)

The pronoun eeke (it) in the second conjunct of the sentence refers to the complement construction padma aṁḍeṇevaayi (that Padma is crying) in the first conjunct, and by the rules of pronominalisation must substitute for a noun phrase identical in deep structure with it. It has already been noted that a sentence like (16) is impossible and that only (15) is possible with the predicate boru (false). Consequently, (17) must be derived from an underlying structure (18), in which the underlined noun phrases are identical in deep structure.

- (18) sunil padma añDənevaa yi kiyənevaa eet
 'Sunil' 'Padma' 'is crying' 'says' 'but'
 padma añDəne ekə boru
 'Padma' 'crying' 'thing' 'false-is'

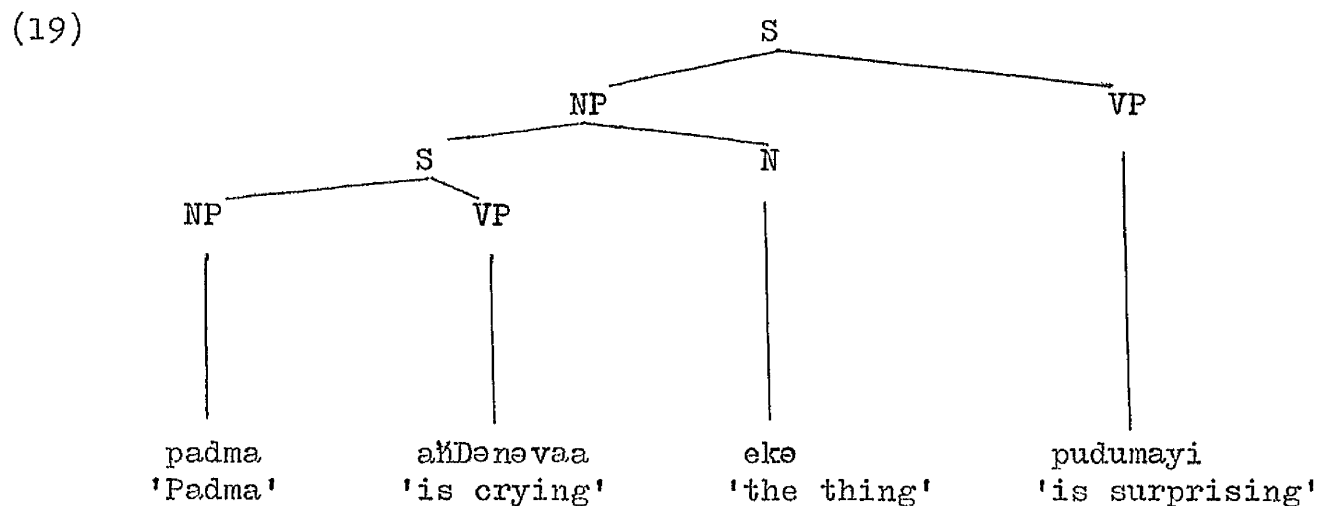
(Sunil says that Padma is crying but it is not so that Padma is crying.)

Now, it has already been claimed that the second noun phrase, which has a noun head ekə (thing) must be generated by (14). Since the first noun phrase must have an identical deep structure, it too must be generated by the same rule. Therefore, I claim that all NP complements are in general generated by this rule, and have in deep structure a noun head ekə (thing), which has a feature specification $\begin{bmatrix} +N \\ +Pro \\ +Abstract \end{bmatrix}$, or one of a handful of other nouns like vittiye (the fact) etc. discussed above.

Complement constructions like that in (1) will be distinguished here as ekə complements, and are derived from deep structures like (19). In addition to being $\begin{bmatrix} +N \\ +Pro \\ +Abstract \end{bmatrix}$, ekə has a definite determiner, and is thus distinguished from its indefinite counterpart ekak (a thing). In the following phrase markers however, this determiner is omitted for convenience.

In Chapter 3 (p. 100) a transformational rule T-Modifier was formulated, which applied given just such a structural description as (19). In all ekə complements it applies obligatorily, converting the main verb or predicate of the embedded sentence to its

Modifier form, in this case aṁDəṇə (crying), and deriving a surface structure like (1).



Such complements, and in fact all NP complements, may occur in a variety of positions. In (20)-(24) the complement occurs in object NP, Tə NP, ee NP, en NP and NP + Postposition position respectively.

- (20) sunil padma aṁDəṇə eke visvaase kəranne nāhə
 'Sunil' 'Padma' 'crying' 'thing' 'believes' NEG

(Sunil doesn't believe that Padma cries.)

- (21) sunil padma aṁDəṇə ekeTə purudu velāa
 'Sunil' 'Padma' 'crying' 'thing-to' 'has become accustomed'

(Sunil has grown accustomed to Padma crying.)

- (22) padma aṁDəṇə eke teerumə mokaddə
 'Padma' 'crying' 'thing-of' 'meaning' 'what' Q

(What is the meaning of Padma crying like this?)

- (23) padma aṁDəṇə eken maTə kərəderayi
 'Padma' 'crying' 'thing-from' 'me-to' 'trouble-is'

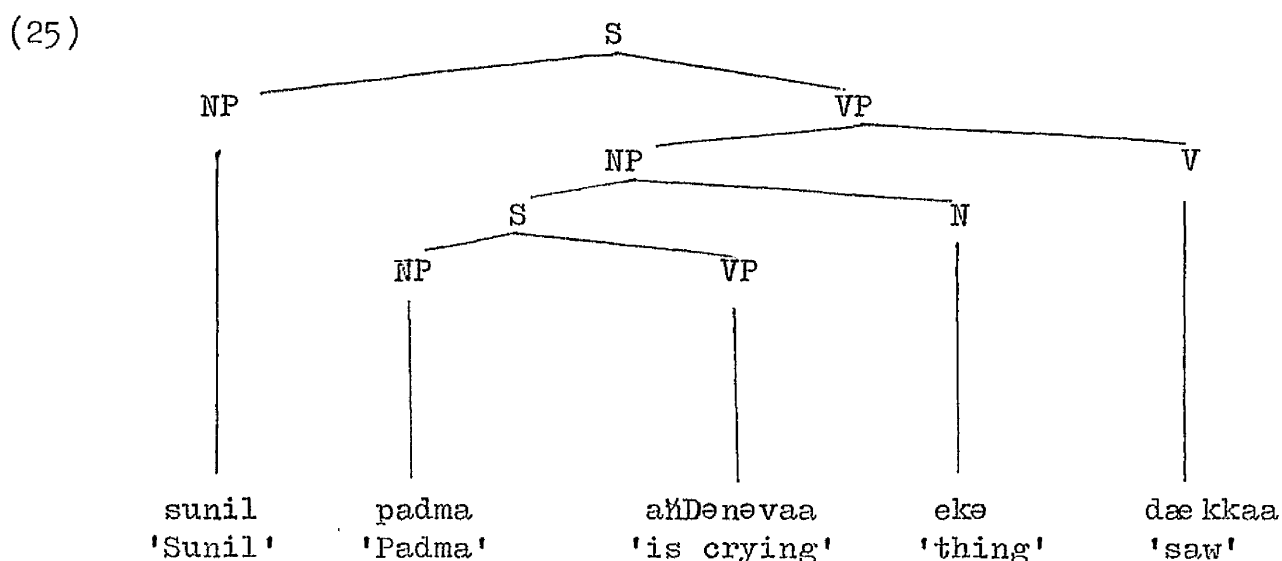
(It's a nuisance to me that Padma cries.)

- (24) sunil padma aḥḍeṇe eke gaene tarahayi
 'Sunil' 'Padma' 'crying' 'thing' 'about' 'angry-is'

(Sunil is angry about Padma crying.)

eke complements occur commonly with verbs like hariyanne næhae (won't do), allanne næhae (does not suit), purudu ve (become accustomed), matak ve (become remembered), matak kære (remind), sæ ke kære (doubt), visvaase kære (believe); predicative adjectives like aette (true), boru (false), hoḥḍe (good), nareke (bad), pudume (surprising), karədere (troublesome), kæte (ugly), purudu (accustomed), matakæ (remembered), anumaane and sæke (doubtful); and with predicative nominals like karədereyak (a trouble), læjjaavak and aperaadeyak (a shame).

Complement constructions like that in (2) will be distinguished here as vaa complements, and are derived from deep structures like (25).



The motivation for such a deep structure has already been discussed. In order to derive a surface structure like (2), a further rule of ekə Deletion is required.

(26) ekə Deletion

SD :	X	-	[S	-	<u>ekə</u>]	NP	-	X	\Rightarrow	OPT
	1			2		3				4		
SC :	1			2		0				4		

T-Modifier can now be formulated as an obligatory rule that is ordered after the optional ekə Deletion. ekə Deletion cannot apply if the embedded sentence contains a non-verbal predicate, except where the main verb of the matrix sentence is kiyə (say). This blocks sentences like (27) and (28), but correctly allows (29).

- (27) *sunil padma læ jjaayi daekkaa
'Sunil' 'Padma' 'shy-is' 'saw'

(Sunil saw that Padma was shy.)

- (28) *padma sunil horek(yə) daekkaa
'Padma' 'Sunil' 'a thief-is' 'saw'

(Padma saw that Sunil was a thief.)

- (29) sunil padma læ jjaayi kiyənevaa
'Sunil' 'Padma' 'shy-is' 'says'

(Sunil says Padma is shy.)

vaa complements occur commonly with verb roots like daki (see), balaagənə in (be watching), ahagənə in (be listening to), daene (feel), pee (see), purudu ve (become accustomed); and with predicative adjectives like væDi (more or too much), madi (too

little), aDu (less), purudu (accustomed), mateke (remembered), anumaane and sæke (doubtful).

(30) illustrates another common type of complement construction which occurs with verb roots like aha (ask), bale (examine), vimese and prasne kere (question).

(30) sunil padma añDenevaa de ahanevaa
 'Sunil' 'Padma' 'is crying' Q 'is asking'

(Sunil is asking whether Padma is crying.)

The distinguishing feature of such constructions is that the embedded sentence appears with the question particle de, and may in addition, contain K/M words. Hence the phrases kavuru añDenevaade (who is crying), padma kotene añDenevaade (where Padma is crying), with question words kavuru (who) and kotene (where) may be substituted in (30).

One way of analysing such constructions would be to postulate that question sentences may be embedded in complement constructions. In this case, eke Deletion will operate as in (25) and surface structures like (30) will be derived. Since there is no Modifier form of a 'V + Q' form, eke Deletion will apply obligatorily in such cases. This seems to be a satisfactory explanation, especially as it is in the cases of the complement constructions in (2), (4) and (5), in which T-Modifier does not apply, that parallel constructions with de exist. (30), and also (31) and (32) which are synonymous with it, illustrate this.

- (31) sunil padma aṁḍenēvaa dæ (yi) ahanēvaa
 'Sunil' 'Padma' 'is crying' Q 'is asking'

(Sunil is asking whether Padma is crying.)

- (32) sunil padma aṁḍenēvaa dæ kiyēlaa ahanēvaa
 'Sunil' 'Padma' 'is crying' Q 'is asking'

(Sunil is asking whether Padma is crying.)

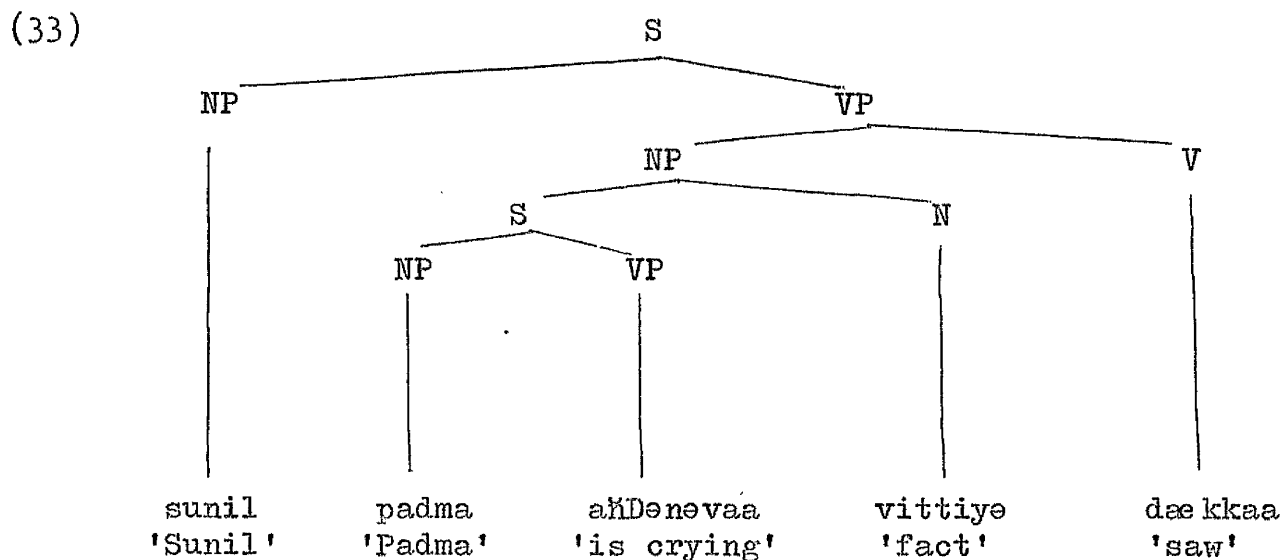
Another way of analysing such constructions would be to postulate a special complementiser dæ which is transformationally attached to the embedded sentence when the predicate of the matrix sentence belongs to the class of verbs ahanēvaa (ask), vimeṣenēvaa (question) etc. This would lead to an argument similar to one put forward by Robin Lakoff for imperatives in Latin,³ by which the particle dæ in questions in Sinhalese could be shown to demonstrate the presence of an abstract verb of the ahanēvaa (ask) class in the underlying structure of questions.

I assume the former analysis here. Consequently, no new rule of dæ Complementiser Placement is needed, but it is necessary to permit question sentences to appear as embedded sentences in complement constructions.

Complement constructions like that in (3) will be distinguished here as vittiye complements, and are derived from deep structures like (33). As noted earlier, a few other nouns like bave and vage can replace vittiye (fact) as noun head. The structural description of T-Modifier is met in (33), and hence this will apply,

3. R. Lakoff (1968), Ch. 5.

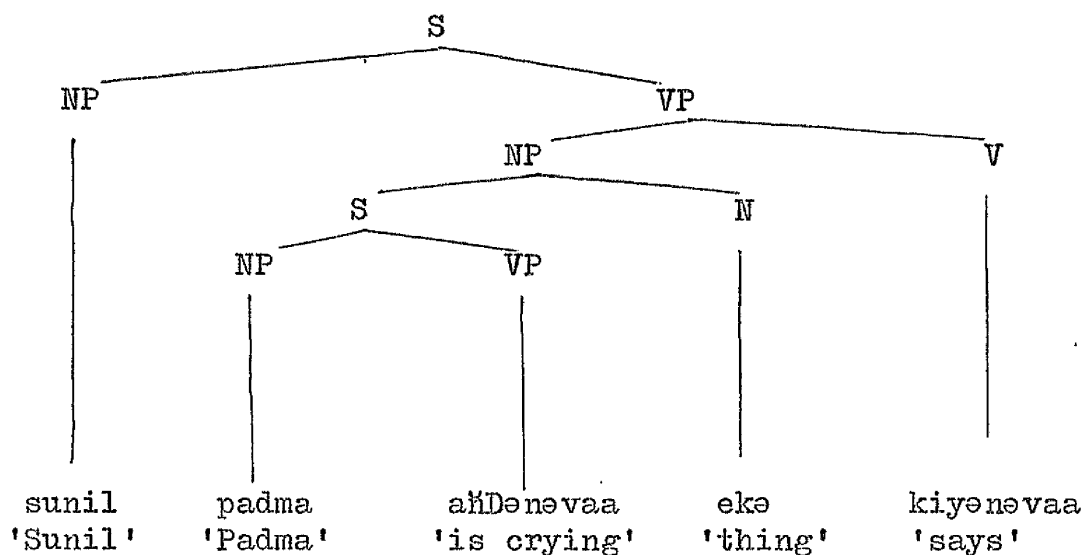
converting añDənevaa (cry) to its Modifier form añDəne (crying), and deriving a surface structure (3).



vittiye complements occur commonly with verb roots like aaranci ve (become rumoured), prəsiddə ve (become famous), kiyə (say), penne (show), danne (inform), matak kərə (remind), teerum kərə (make clear), prəsiddə kərə (make famous), dæ ne (feel), pee (see), daki (see), dan (know), hitə (think); and with predicative adjectives like aaranci (rumoured), prəsiddə (famous), and matekə (remembered).

Complement constructions like that in (4) will be distinguished as yi complements, and are derived from deep structures like (34). A transformational rule like (35) is needed to handle such constructions.

(34)

(35) Complementiser Placement

SD : X - [S - ekə]_{NP} - X ⇒ OBL

 1 2 3 4

SC : 1 2+(yi) 3 4

Condition : 2-3 is object NP of kiye (say)

(35) attaches a complementiser (yi) to aħDenēvāa (is crying). ekə Deletion, which must be obligatory in such contexts, will now apply, and surface structure (4) is derived.

The condition on (35) specifies (yi) as a special complementising morpheme used only with kiye (say). That this complement construction does not occur with any other predicates is demonstrated by (36) and (37).⁴

4. In fact, (31) shows that it does occur after question sentences with verbs of the aha (ask) class. This however, is the only other example of its occurrence, and I will not account for it in this study.

- (36) *sunil padma aṁDenəvaa yi dannevaa
 'Sunil' 'Padma' 'is crying' 'knows'

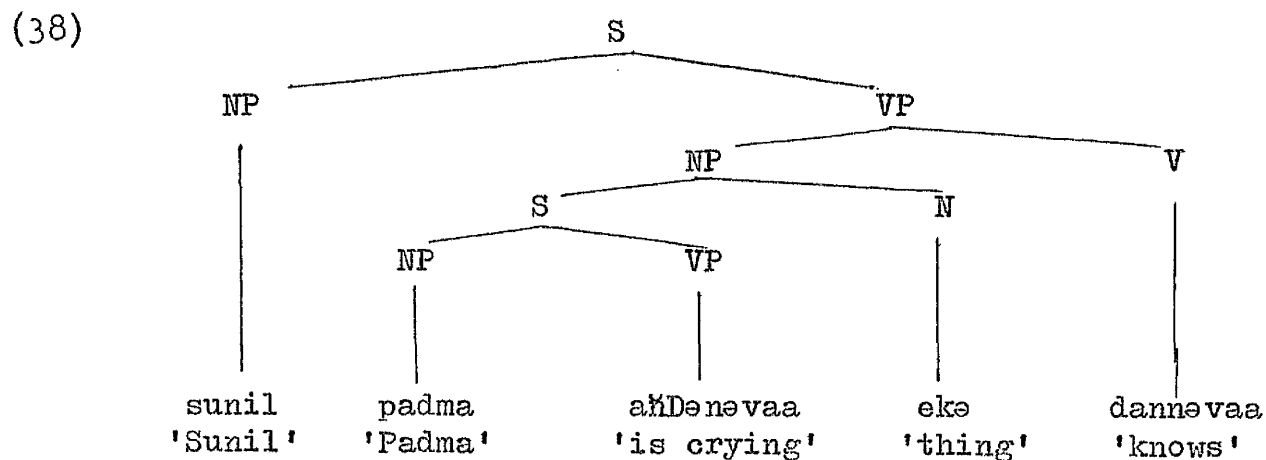
(Sunil knows that Padma is crying.)

- (37) *padma sunil horek ye hitənevaa
 'Padma' 'Sunil' 'a thief' 'thinks'

(Padma thinks Sunil is a thief.)

The verb root kiye (say) is distinguished from other verb roots in Sinhalese by some idiosyncratic properties. I differentiate kiye (say) from kiye (order, say to do, tell). The latter occurs with a special form of complementiser which will be discussed later and also appears with other verbs of ordering like anə kərə (order) etc. As shown above, the former appears with a special complementiser of its own.

Complement constructions like those in (5) and (6) will be distinguished as kiyəlaa and kiyəne eke complements respectively. The analysis of such constructions presents a problem. A possible analysis is one in which (yi) kiyəlaa and (yi) kiyəne eke are introduced as complementisers into a deep structure like (38).



However, such an analysis lacks explanatory power for several reasons. Firstly, kiyene eke consists of the pronominal head eke (thing) of the other complement constructions, and the Modifier form of the verb kiye (say). Secondly, both kiyelaa and kiyene eke are identical to derived forms of the verb root kiye (say), the former being the perfective form of this root. Thirdly, yi, which was seen to be a complementising particle peculiar to kiye (say), is an optional element in both these phrases.

Now, there exists in Sinhalese a general rule by which the subject NP of a sentence which is unspecified other than for the feature [+Animate] may be deleted. (39) and (40) are grammatical sentences, and are interpreted as indicated below, or more literally, as 'At Vesak time, people erect pandals' and 'Some people are cutting trees'.

- (39) vesak kaaleTe toran baḥḍinevaa
'Vesak' 'time-at' 'pandals' 'erect'

(At Vesak time, pandals (decorated arches) are erected.)

- (40) gas kapenevaa
'trees' 'are cutting'

(Trees are being cut.)

In general, such deletions seem more natural when an adverbial like vesak kaaleTe (at Vesak time) in (39) is present, and when the main verb of the sentence is Non-Past in tense. I have not investigated these conditions closely, but for the present a rule of Unspecified NP Deletion can be formulated very approximately to look

(Padma is said to cry). On Cycle 3, T-Modifier applies as usual deriving (6). Alternatively, a new complementiser process would need to be set up, applying after ekə Deletion and converting the main verb of the embedded sentence to its perfective form kiyəlaa (having said).

However, this analysis runs into even more problems. In (5) and (6) kiyəlaa and kiyəne ekə are semantically empty, as is indicated by the interpretations assigned to them. A deep structure like (42) on the other hand, generates a sentence identical in form to (6) but having an interpretation 'Sunil knows that Padma is said to cry'. No sentence like (6) can have this interpretation.

Again, in a deep structure like (42) it is possible to substitute kiyə + Past (said) for kiyə + Non-Past (says), thus deriving:

(43) sunil padma aḥDenevaayi kivve ekə dannevaa
 'Sunil' 'Padma' 'cries' 'said' 'thing' 'knows'

(Sunil knows that Padma was said to cry.)

No such tense variation is possible in the complement constructions in (5) and (6) where kiyəlaa and kiyəne ekə are semantically empty. The fact that these are semantically empty items suggests that they may be transformationally introduced. Claiming this involves positing (38) as deep structure for both (5) and (6), and then setting up a second form of Complementiser Placement. This rule would look something like (44), where kavude and kiyənevaa are empty items.

(44) Complementiser Placement

$$\begin{array}{lcl}
 \text{SD :} & \text{X} & - \left[\text{S} - \underline{\text{ekə}} \right]_{\text{NP}} - \text{X} \implies \text{OPT} \\
 & 1 & \quad \quad 2 \quad \quad 3 \quad \quad \quad 4 \\
 \text{SC :} & 1 & \left[\underline{\text{kavudə}} - 2 + \underline{\text{ekə}} - \underline{\text{kiyənevaa}} \right]_{\text{S}} 3 \ 4
 \end{array}$$

Again, a new complementiser process applying after ekə-Deletion and converting kiyənevaa to its perfective form would be additionally needed to account for (5).

A transformation like (44) seems counter-intuitive, but there seems no other way of accounting for the facts. An alternative would be to set up two verbs kiyə, one of which would be semantically empty and incapable of tense variation, and allow either verb to appear in deep structures like (42). This however seems even more counter-intuitive than the former solution. Hence for the present I suggest the former analysis for kiyəlaa and kiyəne ekə complements, and set (44) up as an addition to the Complementiser Placement rule. Since the earlier rule (35) must apply obligatorily to the output of (44), (44) must be ordered before it. Hence in the list of transformational rules given in the Appendix, (44) is referred to as Complementiser Placement a, and is ordered before (35), which is referred to as Complementiser Placement b (see Appendix, Part II, (6) and (7)).

Both kiyəlaa and kiyəne ekə occur commonly with verb roots like matak ve (become remembered), səkə kərə (doubt), visvaasə kərə (believe), aaranci ve (become rumoured), prəsiddə ve (become famous),

penne (show), danne (inform), matak kərə (remind), teerum kərə (explain), prəsiddə kərə (make famous), dan (know), pee (see), dæ ne (feel); and with a predicative adjective like matake (remembered).

However there are some verbs which may occur with kiyelaa but not kiyene eke. daki (see), hite (think), balaaporottu ve (expect) and kiye (say) itself, are some of these. Consequently, (45) is a possible sentence, but not (46).

- (45) sunil padma aḥḍenəvaa yi kiyelaa kiyenəvaa
'Sunil' 'Padma' 'cries' 'says'
- (46) *sunil padma aḥḍenəvaa yi kiyene eke kiyenəvaa
'Sunil' 'Padma' 'cries' 'says'

(Sunil says that Padma cries.)

Six main types of NP complements have been discussed above. There also exists another very common type of complement construction in Sinhalese. This is illustrated in (47)-(57), and will be distinguished as the infinitive complement construction.

- (47) mame yanne hitaagattaa
'I' 'to go' 'decided'

(I decided to go.)

- (48) api yanne tiindukəlaa
'we' 'to go' 'decided'

(We decided to go.)

- (49) sunil puṭu viyanne dannevaa
'Sunil' 'chairs' 'to weave' 'knows'

(Sunil knows (how) to weave chairs.)

- (50) *mame padmaTə yanne kivvaa*
 'I' 'Padma-to' 'to go' 'told'
 (I told Padma to go.)
- (51) *padma yanne kəmətiyi*
 'Padma' 'to go' 'fond-is'
 (Padma likes to go.)
- (52) *padma yanne ekeŋgə vunaa*
 'Padma' 'to go' 'agreed'
 (Padma agreed to go.)
- (53) *padma yanne ləææsti vunaa*
 'Padma' 'to go' 'prepared'
 (Padma got ready to go.)
- (54) *mame padmaTə yanne avəsərə illuvaa*
 'I' 'Padma-for' 'to go' 'permission' 'asked'
 (I got permission for Padma to go.)
- (55) *mame padmaTə yanne aŋDəgəhuva*
 'I' 'Padma-to' 'to go' 'called'
 (I called Padma to go.)
- (56) *padma yanne paŋtangattaa*
 'Padma' 'to go' 'began'
 (Padma started to go.)
- (57) *padma yanne vəæəyam kərənevaa*
 'Padma' 'to go' 'is trying'
 (Padma is trying to go.)

Earlier we distinguished the complement constructions in (1)-(6) as NP complements because they formed grammatical answers to questions (7)-(10), which contained the K/M question word monevaa (what). Applying the same test here we find that the underlined

portions in (47)-(49) form grammatical answers to (58)-(60), and can thus be analysed as NP complements.

- (58) *mamə* *monəvaa* *hitaagattaa də*
 'I' 'what' 'decided' Q

(What did I decide on?)

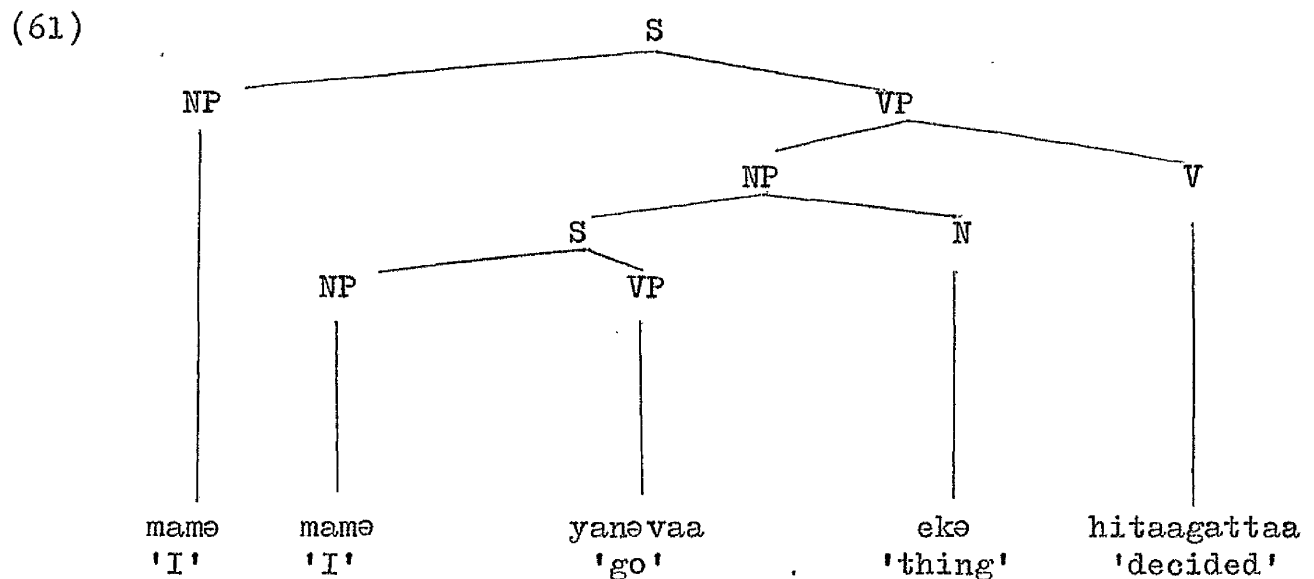
- (59) *api* *monəvaa* *tiindukəlaa də*
 'we' 'what' 'decided' Q

(What did we decide on?)

- (60) *sunil* *monəvaa* *dannevaa də*
 'Sunil' 'what' 'knows' Q

(What does Sunil know?)

In (47) and (48), the complement contains only a verbal element, and in (49), a verbal element and an object NP. In all three no subject NP is present, but the subject NP is understood to be identical with the subject of the main sentence. Therefore (47), for example, should have a deep structure like (61).



A rule of Equi-NP Deletion can now be set up which obligatorily deletes the subject NP of a complement when it is identical with another noun phrase in the matrix sentence.⁵ The relevant noun phrase in the matrix sentence can be defined for Sinhalese as well, in terms of Rosenbaum's Principle of Minimal Distance.⁶ This principle specifies that NP_j may be erased by NP_i if and only if there is a S_α such that (1) NP_j is dominated by S_α (2) NP_i neither dominates nor is dominated by S_α (3) for all NP_k neither dominating nor dominated by S_α , the distance between NP_j and NP_k is greater than the distance between NP_j and NP_i where distance between two nodes is defined in terms of the number of branches in the path connecting them. This rule can be formalised to look something like (62).

-
5. In the majority of cases Equi-NP Deletion appears to be obligatory. Some sentences like those below, in which Pronominalisation applies instead of Equi-NP Deletion, seem to be counterexamples. I have not examined such cases in detail, but it is possible that further conditions may need to be imposed upon the rule as formulated in (62) to account for these.

a padma aḥḍeṇe eke eyaaṭe hoḥḍe nāe hāe
 'Padma' 'crying' 'thing' 'her-to' 'good' NEG

(It is not good for Padma to cry.)

b padma tamaa vibaagen aṣemat vune have dannevaa
 'Padma' 'self' 'the exam-from' 'failed' 'fact' 'knows'

(Padma knows that she has failed the exam.)

c padma tamaa vibaagen aṣemat vunaayi kiyēnevaa
 'Padma' 'self' 'the exam-from' 'failed' 'says'

(Padma says she has failed the exam.)

6. See Rosenbaum (1967), Ch. 1 p. 6, also Rosenbaum (1970).

(62) Equi-NP Deletion

SD : X - [NP - X]_S - X \Rightarrow OBL

 1 2

SC : 0 2

Condition : 1 is identical with the nearest NP in the S
 being processed which does not dominate 1

(61) meets the structural description of (62) since the only NP in the sentence being processed which does not dominate the subject NP of the embedded sentence is one identical with it, mame (I). Hence mame may be deleted in the embedded sentence. In later examples, it will be seen that the Minimal Distance Principle makes the correct predictions for Sinhalese when there is more than one noun phrase in the matrix sentence.

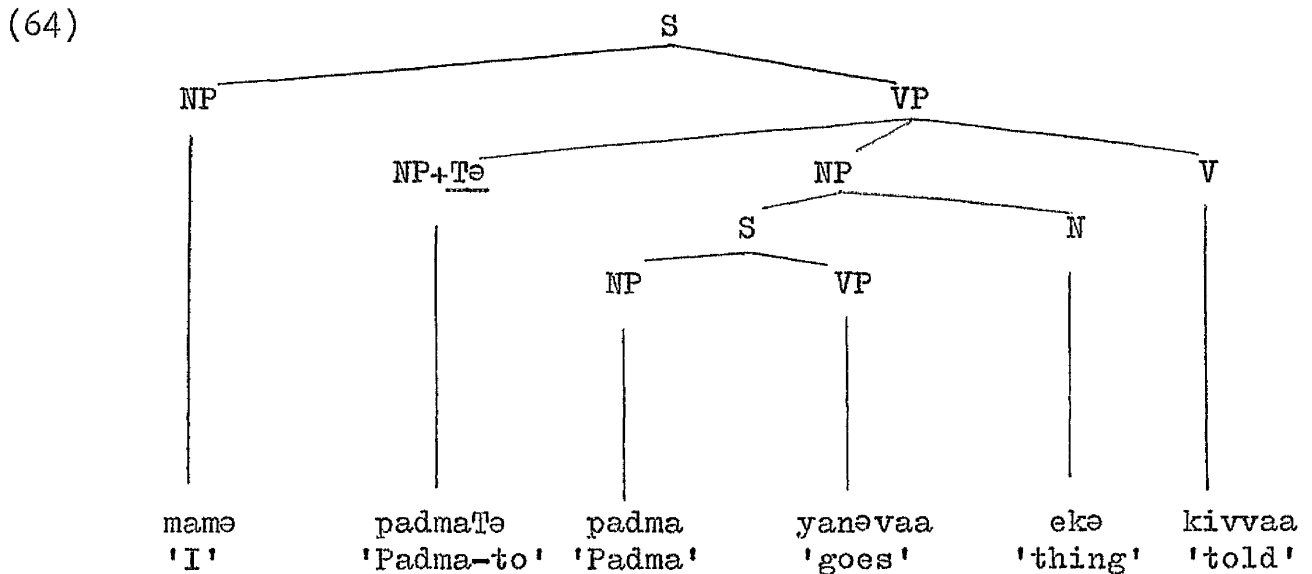
ekə Deletion must now apply to (61), and after this a further rule which converts the main verb of the embedded sentence yanəvāa (go) to its infinitive form yanne (to go) will need to operate. ekə Deletion must in general, be constrained to apply obligatorily when Equi-NP Deletion has removed the subject NP of a complement sentence. What form the Infinitive rule should take will be examined after a discussion of all the complement types in (47)-(57). (48) and (49) can be derived from deep structures similar to (61), by the same processes.

The monevāa (what) test can also be successfully applied to (50), the underlined portion in it constituting a grammatical answer to (63).

- (63) mame padmaTə monəvaa kivvaade
 'I' 'Padma-to' 'what' 'told' Q

(What did I ask Padma to do?)

Therefore yanne (to go) in (50) too must be a NP complement. Again this complement comprises a single verbal element, but its subject is uniquely understood to be the noun phrase padma. (64) suggests itself as a probable deep structure.



Here, padma is the subject of the embedded sentence. The sentence being processed which does not dominate it contains two noun phrases, the subject NP mame (I), and the Tə NP padmaTə (to Padma). The distance between the subject NP of the embedded sentence and mame is five branches, and that between it and padmaTə is four. Since the latter is the nearest relevant noun phrase, and is identical with it, padma must be erased by Equi-NP Deletion. This is an instance in which the Minimal Distance Principle distinguishes correctly between two relevant noun phrases in the matrix sentence.

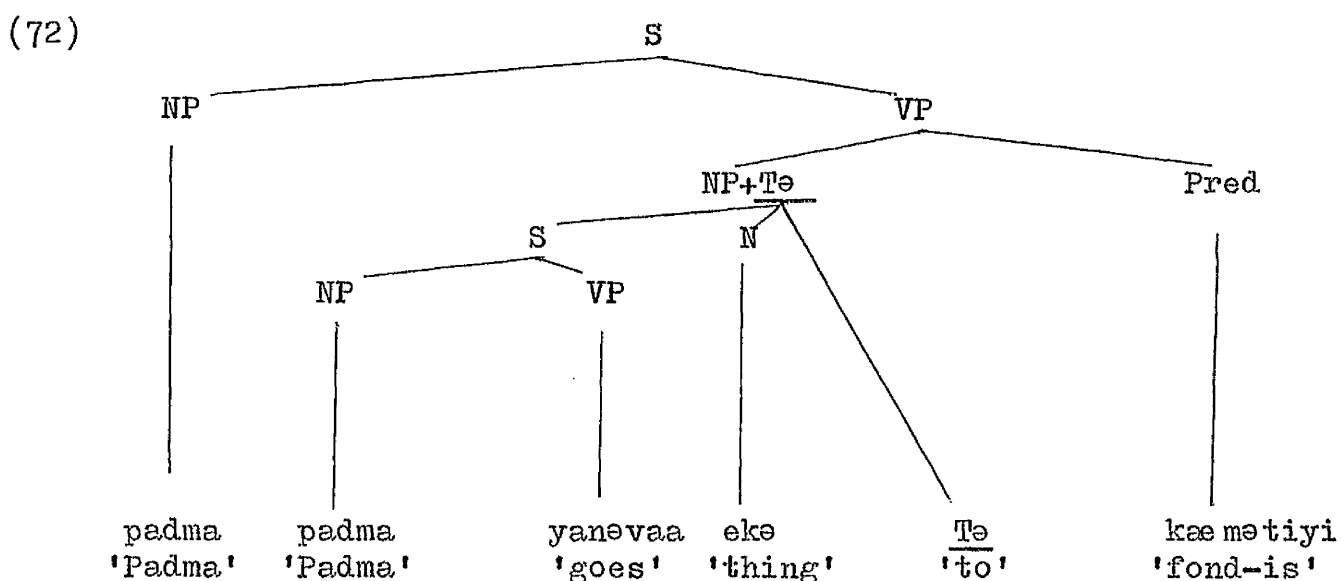
After Equi-NP Deletion applies, ekə Deletion must apply to (64). Subsequently the Infinitive rule must apply, thus deriving a surface structure like (50). The verb root kiyə (tell) in this sentence is that referred to on page 148, and which together with other verbs of ordering in Sinhalese, regularly appears with infinitive complement constructions.

Returning now to sentences (51)-(57), and applying the monevaa (what) test to them, we find that the underlined portions in them do not constitute grammatical answers to (65)-(71) respectively. In fact, except for (70), the questions themselves are ungrammatical.

- (65) *padma monevaa kəmeti də
'Padma' 'what' 'fond' Q
- (66) *padma monevaa ekəŋgə vunaa də
'Padma' 'what' 'agreed' Q
- (67) *padma monevaa ləəəsti vunaa də
'Padma' 'what' 'prepared' Q
- (68) *mame padmaTə monevaa avəsərə illuvaa də
'I' 'Padma-for' 'what' 'permission' 'asked' Q
- (69) *mame padmaTə monevaa aŋDe gae huvaa də
'I' 'Padma-to' 'what' 'called' Q
- (70) padma monevaa paTangattaa də
'Padma' 'what' 'began' Q
- (71) *padma monevaa vəəəyam kərenevaa də
'Padma' 'what' 'is trying' Q

Now, although (65)-(69) are ungrammatical, they cease to be so when monevaa (what) is replaced by a Tə NP monevaaTə (to what). In addition, the complements in (51)-(55) then constitute grammatical

answers to them. This suggests that these are in fact NP complements, but not subject or object complements, but instead complements embedded in a Te NP. In this case, the deep structure of (51), for example, would look something like (72). Again, the complement contains a single verbal element, but its subject is uniquely understood to be padma.



Now, if the subject NP of the embedded sentence were mame (I) rather than padma, either (73) or (74) could be derived by the rules already discussed.

(73) padma mame yanəvaaTe kəmətiyi
'Padma' 'I' 'go-to' 'fond-is'

(74) padma mame yanə ekeTe kəmətiyi
'Padma' 'I' 'going' 'thing-to' 'fond-is'

(Padma likes me to go.)

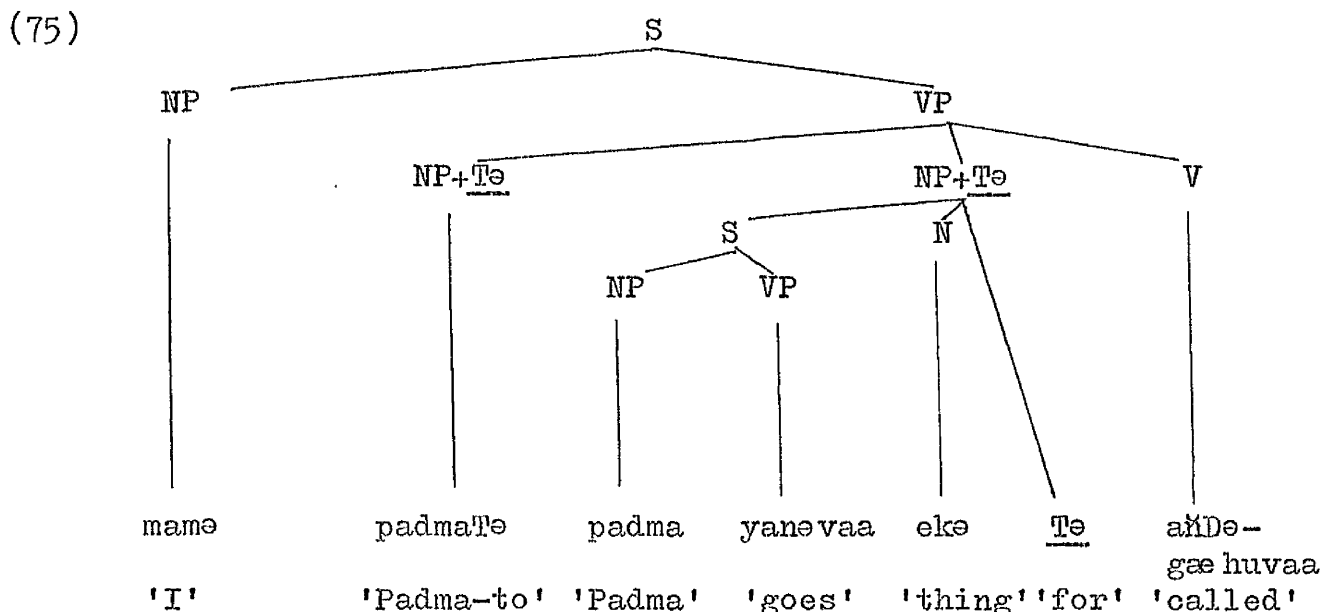
In (73), the optional eke Deletion has applied. In (74),

since ekə Deletion has not applied, T-Modifier applies obligatorily. Now, given a deep structure like (72), two sentences corresponding to (73) and (74) can be derived, in which the subject of the embedded sentence is not deleted, but appears with a reflexive or emphatic particle mə as padmamə (Padma herself). Alternatively this may be replaced by the pronominal form tamaamə (she herself). Both sentences would mean 'Padma likes to go herself'.

However, (72) meets the structural description of the obligatory Equi-NP Deletion. To account for the facts above it is necessary to stipulate that Equi-NP Deletion applies after some process of emphatic reflexivisation. Where the emphatic reflexive particle mə is not attached to padma Equi-NP Deletion applies obligatorily to (72). Again ekə Deletion must apply, and then the Infinitive rule. In this case it appears that the Infinitive rule applies only when Equi-NP Deletion has occurred. For sentences like (73) and (74), and the parallel sentences with padmamə (Padma herself), in all of which the subject NP of the complement is present in surface structure, the usual rules discussed for the NP complements in (1)-(6) apply.

The deep structures for (52)-(55) will be similar to (72), and the surface structures can be derived by the same processes outlined above. Again, the deep structures of (52) and (53) can generate other surface structures without infinitive complements, if the subject NP of the complement sentence is not identical with the nearest noun phrase in the matrix sentence, or contains the emphatic

reflexive particle mə. The deep structures of (54) and (55) contain two noun phrases in the matrix sentence, and the subject of the complement is understood to be padma. The deep structure of (55) for example, will therefore be (75).



Although the matrix sentence contains two Tə NPs, the semantic values of these differ. By the Minimal Distance Principle the nearest relevant noun phrase to the subject of the embedded sentence is the identical Tə NP. Equi-NP Deletion therefore applies. Subsequently, ekə Deletion and the Infinitive rule must apply. A similar situation exists for (54).

Hence, so far, all the complements considered in the group (47)-(57) have been amenable to analysis as NP complements. To deal with them, two new rules, Equi-NP Deletion, and the Infinitive rule, are required. Up to now, it appears to be the case that the Infinitive

rule applies only to complements in which the subject NP has been deleted by Equi-NP Deletion. This is made quite clear when sentences like (51), and (73) and (74) are compared, and it is seen that both sets are derived from similar deep structures; that where Equi-NP Deletion applies, the Infinitive rule also applies; and that where Equi-NP Deletion does not apply, the usual processes operate.

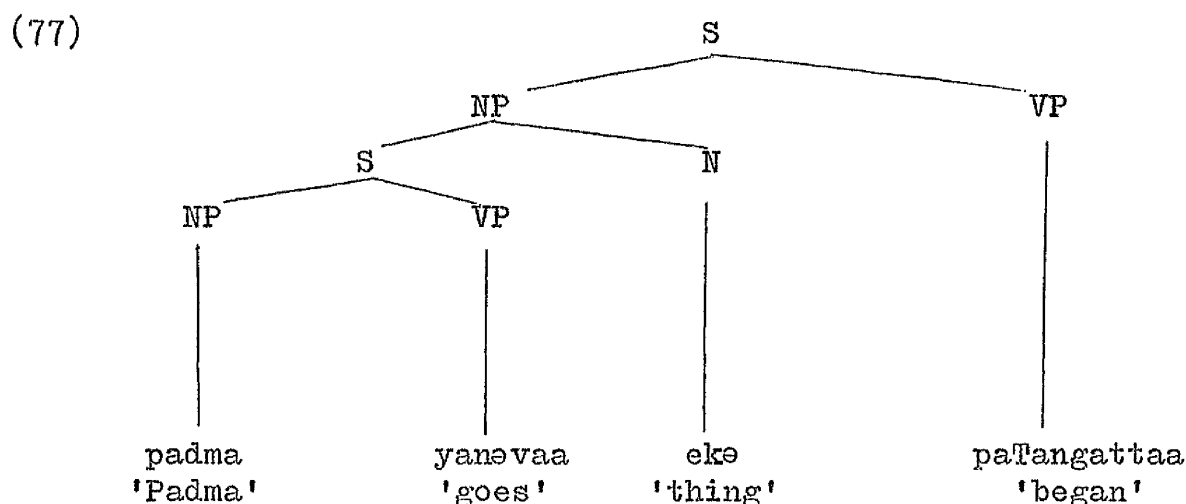
Returning to (56) and (57), we find that the complement constructions in them do not constitute grammatical answers to (70) and (71), or to any other possible questions in which question word noun phrases appear. Does this mean that these constructions must be distinguished as VP complements? This would mean that in addition to (14), another phrase structure rule like (76) is needed to account for complement constructions in Sinhalese.

$$(76) \quad VP \quad \longrightarrow \quad \left\{ \begin{array}{l} (Adv) + (NP) + (S) + V \\ (Adv) + (S) + Pred \end{array} \right\}$$

Sentences like (56) deserve further examination. The predicate of the main sentence here is paTangattaa (began). It has been noted for English that there are two verbs 'begin', an intransitive verb which appears with abstract subjects, and another (transitive or intransitive) which appears with animate subjects and complement sentences (NP or VP complements).⁷ Can it be suggested for Sinhalese

7. See D.M. Perlmutter (1970). G. Lakoff (1966), pp.20-21, refers to a suggestion by Rosenbaum for an intransitive analysis of sentences like 'John began to run'.

that sentences like (56) have a deep structure (77)?



Firstly, there exist sentences like (78), which can only be assigned deep structures like (77), since vahinəvaa (It is raining) is a subjectless sentence (see Ch. 2 p. 72).

- (78) vahinne paṭāṅattāa
 'to rain' 'began'

(It began to rain.)

Secondly, the usual rules may operate on a deep structure like (77) to generate a sentence like (79). (80) is a more natural example of the same type.

- (79) padma yanə eke paṭāṅattāa
 'Padma' 'going' 'thing' 'began'

(The process of Padma departing started.)

- (80) mame paaḍam kəraṇṇə haḍəṇə koṭəmə paare haḍəṇə
 'I' 'to study' 'try' 'when' 'the road' 'repairing'
 eke paṭāṅattāa
 'thing' 'began'

(They started repairing the road just as I sat down to study.)

These two facts suggest that a deep structure (77) is possible. Further, in (79) and (80), the underlined portions appear to be subject NP complements, because they constitute grammatical answers to (81).

- (81) monəvaa paTangatttaa də
 'what' 'began' Q

(What began?)

The complement in (56) however is not a grammatical answer to either (70) or (81). In addition, notice that it can appear in sentences like (82) in which Conjunction Reduction has applied to a subject NP padma (see Ch. 9 for a discussion of Conjunction Reduction).

- (82) padma yanne paTangattaayi æ̃Duvaayi
 'Padma' 'to go' 'began' 'and' 'cried' 'and'

(Padma started to go and cried.)

This suggests that padma, and not a sentence, as in (77), is the subject of (56).

A plausible alternative analysis exists. Earlier we noted that the Infinitive rule applied when the subject NP of a complement sentence was removed (by Equi-NP Deletion, in the cases discussed). In (56) the Infinitive rule has applied, and padma is understood to be the subject of yanne (to go). If padma is removed from the complement sentence of (77), a regular basis can be established on which the Infinitive rule applies.

Transformational literature refers to an optional rule of Pronoun Replacement (also called It-Replacement, It-Substitution or

Raising), that can apply to deep structures like (77).⁸ Several problems have been noted in the formulation of such a rule. Lakoff (1966) discusses Rosenbaum's formulation, and examines some of the difficulties connected with the rule.⁹ He suggests that the theory of transformational grammar be expanded to allow the rule to have not one, but two simultaneous structural descriptions, and allow the structural change to refer to both structural descriptions. The relevant rule for Sinhalese might look something like (83). (83) covers only the first part of the process discussed by Lakoff, and must probably be followed by a process which attaches the remaining portion of the complement sentence to the node VP, as a sister constituent of V. The data seems to suggest this, but I will not discuss the rule in detail here, and will instead assume for the present that (83) is followed by such a process.

(83) eke Replacement

SD : X - [[NP - VP]_S - ekə]_{NP} - X
 1 2 3 4 5

⇒ OPT

SC : 1 0 3 2 5

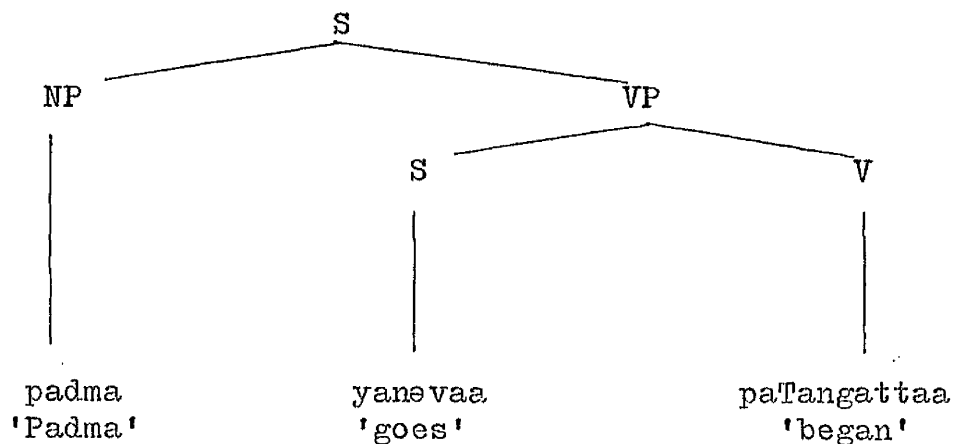
If a rule like this applied to (77), a derived structure

8. Rosenbaum (1967), Ch. 1 p. 7, formulates a rule of Pronoun Replacement:

9. G. Lakoff (1966), pp. 17-27.

like (84) would result.

(84)



The subject NP padma of the embedded sentence would replace the pronoun ekə (thing) as the head noun of the noun phrase. The remaining portion of the complement sentence would then be attached to the node VP as a sister constituent of V. The result would be (84). Since the complement sentence now appears without a subject, the Infinitive rule could apply to it, converting the main verb yanēvaa (goes) to yanne (to go). Such a derived structure would explain why Conjunction Reduction can apply in (82), and also why the 'complement' in (56) is not a grammatical answer to either (70) or (81).

If such an analysis of (56) is valid, then no new rule like (76) is needed to generate it. At the same time a rule of Pronoun or ekə Replacement must be formulated. The Infinitive rule must also be stated. There does exist a type of subjectless complement to which the Infinitive rule does not apply. This type is illustrated by a sentence like (85) in which the complement is sentence (40) (discussed

earlier), to which Unspecified NP Deletion has applied.

- (85) *mamə* *gas* *kapənevaa* *dæ kkaa*
 'I' 'trees' 'are cutting' 'saw'

(I saw trees being cut.)

For the present, I will formulate the Infinitive rule as applying obligatorily when Equi-NP Deletion or *ekə* Replacement has removed the subject NP of the embedded sentence. There is a possibility however, that the conditions on it may be more general.

- (86) Infinitive

$$\begin{array}{lcl} \text{SD :} & X & - \left[\begin{array}{cc} X & - \quad V_{\text{finite}} \end{array} \right]_S - X \Rightarrow \text{OBL} \\ & 1 & 2 \\ \text{SC :} & 1 & \left[\begin{array}{c} 2_{\text{infinitive}} \end{array} \right] \end{array}$$

Condition : Equi-NP Deletion or *ekə* Replacement has removed the subject NP of 1-2

Finally, the complement in (57) remains to be classified. It seems that a phrase structure rule like (76) must be added to the grammar to account for it. This also means that the Infinitive rule must be generalised to operate on VP complements to which Equi-NP Deletion has applied.

R. Lakoff discusses some of the VP complements discussed by Rosenbaum,¹⁰ in terms of the theory of rule government and the exception mechanism set up in G. Lakoff (1970). She suggests that

10. R. Lakoff (1968), Ch. 2 pp. 60-66.

the VP complements that are said to occur with verbs like 'endeavour' in English can be analysed as NP complements if such verbs are marked in the lexicon as having to meet the structural description of It-Deletion, that is if they are verbs that must obligatorily be followed by 'It-S'.

Is it possible to extend such an argument to the Sinhalese verb root vææyam kərə (try) in (57)? If vææyam kərə is marked in the lexicon as having to meet the structural description of ekə-Deletion, it must be preceded by 'S-ekə'. Consequently, the appropriate question for sentences containing this verb would be something like (87) and not (71).

(87) padma monevaa kəranne vææyam kərenevaa də
 'Padma' 'what' 'to do' 'is trying' Q

(What is Padma trying to do?)

(87) is a grammatical question, and the complement in (57) is a grammatical answer to it. This suggests that this analysis is a possibility. Alternatively, a phrase structure rule like (76) must be added to the grammar, and the Infinitive rule generalised to apply to VP complements.

(47)-(57) illustrate some of the main types of infinitive complements in Sinhalese. Verb roots like hitə, kalpenaa kərə (think to do) appear frequently in sentences like (47); verb roots like anə kərə, niyəmə kərə (order), matak kərə (remind) in sentences like (50); predicative adjectives like aasaa (fond), lææjjaa (shy),

baye (frightened), hore (unwilling) in sentences like (51); verb roots like kaemeti ve, aasaa ve (agree to or show a liking to) in sentences like (52); verb roots like ille (ask), laeæsti kere (make preparations for) in sentences like (54); and verb roots like kataa kere (call) in sentences like (55).

Verb roots like gan and ve (take to) appear in one of their respective meanings in sentences like (56). Similarly, verb roots like bale, utsaahē kere, hade, all meaning 'try', and mahansi ve, mahansi gan (take pains to) all appear in constructions like (57).

Hence, seven principal types of complement constructions can be distinguished in Sinhalese, those illustrated in (1)-(6), and in the set of sentences (47)-(57).¹¹ Those in (1)-(6) can all be analysed as NP complements. Most of the complements in (47)-(57) are also amenable to such an analysis. Those in (56) and (57) present problems of analysis, and no conclusion is drawn here as to whether they must be analysed as NP or VP complements. One of the rules required for handling infinitive complements is the Infinitive rule. This rule is tentatively formulated in (86). A phrase structure

11. The particle lu in Sinhalese also acts as a complementising particle in constructions like the following, but I do not discuss such constructions here.

padma aṁḍenevāa lu
'Padma' 'is crying'

(Apparently, Padma is crying or It seems, it is said that Padma is crying.)

rule like (14) must be added to the grammar to account for NP complements, and if it is necessary to generate VP complements, then a rule like (76) as well. Such rules both allow for recursion. (88) is a sentence where (14) has applied recursively, and it contains three ekə complements. In (89), (14) has again applied recursively, but the three complements it contains are of different types, a kiyelaa, vittiye, and ekə complement respectively.

- (88) padma aḥDəne ekə sunil dækkə ekə mame
 'Padma' 'crying' 'thing' 'Sunil' 'saw' 'thing' 'I'
 danne ekə hoḥdayi
 'knowing' 'thing' 'good-is'

(It is a good thing that I know that Sunil saw that Padma cries.)

- (89) padma aḥDənevaayi kiyelaa sunil dækkə vittiye mame
 'Padma' 'cries' 'Sunil' 'saw' 'fact' 'I'
 danne ekə hoḥdayi
 'knowing' 'thing' 'good-is'

(It is a good thing that I know that Sunil saw that Padma cries.)

CHAPTER 5

MODAL CONSTRUCTIONS

There are three principal modal adjectives in Sinhalese, æti, puluvan and oonee (oone, oonææ for some speakers), and these express respectively a sense of probability, possibility, and necessity. In some dialects, æhæki replaces puluvan, or occurs interchangeably with it. All the examples below however, contain puluvan.

In addition to special properties idiosyncratic to modals, all three modal adjectives exhibit some of the properties common to the usual class of adjectives in Sinhalese. In (1), predicate position is occupied by læjjaa (shy), a member of the usual class of adjectives. In (2), (3) and (4), it is occupied in turn by each of the modal adjectives.

- (1) laməya læjjaa yi
 'the child' 'shy-is'

(The child is shy.)

- (2) liyumak æti ¹
 'a letter' 'probable-is'

(There will probably be a letter.)

1. æti may also mean 'sufficient', and under this interpretation, (2) means 'One letter is sufficient'. This æti belongs to the usual class of adjectives, and shares its properties.

- (3) vaeDee puluvan (i)
'the job' 'possible-is'

(The job is one that can be done.)

- (4) minihek oonee
'a man' 'necessary-is'

(A man is needed.)

In (5), the adjective laejjaa (shy) appears in prenominal modifier position. The derivation of such adjectival and other nominal modifiers is discussed in Chapter 3. In (7) and (8), the modal adjectives puluvan (possible) and oonee (necessary) appear in this position. (6) indicates that aeti (probable), unlike the other modal adjectives, cannot appear in this position.

- (5) laejjaa laməya
'shy' 'the child'

(the shy child)

- (6) *aeti liyume
'probable' 'the letter'

(the letter that there probably will be)

- (7) puluvan vaeDee
'possible' 'the job'

(the job that is possible to do)

- (8) oonee miniha
'necessary' 'the man'

(the man who is needed)

However, the modal adjectives differ in significant ways from the usual class of adjectives. Where one of the usual class is predicate of the matrix sentence, subject complements are generally

ekə or vaa complements. (9) and (10) illustrate this.

- (9) padma aṁDəne ekə pudumayi
'Padma' 'crying' 'thing' 'surprising-is'

(It is surprising that Padma is crying.)

- (10) padma aṁDənevaa maṭe matekayi
'Padma' 'is crying' 'me-to' 'remembered-is'

(I remember Padma crying.)

(11)-(14) illustrate typical constructions in which the modal adjectives appear. It will be argued later that the underlined portions in each are derived from subject complements. Unlike with the usual class of adjectives, these complements are infinitive complements, except in (11). In (11), the main verb of the embedded sentence is understood to be Non-Past, and a vaa complement occurs. In (12), where an infinitive complement appears, the main verb of the embedded sentence is understood to be Past. (To reflect this, aṁDanne, which is glossed elsewhere as 'to cry', is glossed here as 'to have cried'.) This alternation occurs only with æti (probable).

- (11) padma aṁDənevaa æti
'Padma' 'is crying' 'probable-is'

(Padma is probably crying.)

- (12) padma aṁDanne æti
'Padma' 'to have cried' 'probable-is'

(Padma probably cried.)

- (13) padma aṁDanne puluvaṇ (i)
'Padma' 'to cry' 'possible-is'

(It is possible that Padma will cry.)

- (14) padma yanne oonee
'Padma' 'to go' 'necessary-is'

(Padma must go.)

It has been assumed that the underlined portions in (11)-(14) are derived from subject complements. However, in (14), for example, padma yanne does not constitute a grammatical answer to the question in (15), where monevaa (what) appears in subject position.

- (15) monevaa oonee də
'what' 'necessary' Q

(What is needed?)

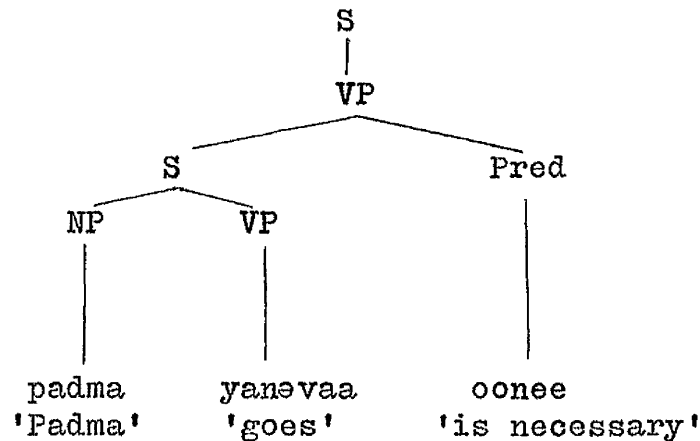
On this basis, it seems doubtful that padma yanne is a subject complement. The ungrammaticality of the question in (16) suggests that it cannot be a Te NP complement either. (17) and (18), in which monevaa (what) appears in object and Te NP position respectively, can be used to test whether yanne (to go) in (14) is an object or Te NP complement. The ungrammaticality of these suggests that these too are not possible analyses.

- (16) *monevaaTe oonee də
'what-to' 'necessary' Q
- (17) *padma monevaa oonee də
'Padma' 'what' 'necessary' Q
- (18) *padma monevaaTe oonee də
'Padma' 'what-to' 'necessary' Q

Hence, the analysis of the complement in (14) presents a problem. The same holds true for (11)-(13). Can these be analysed as VP complements to be generated by a phrase structure rule like that suggested in Chapter 4 (76)? This would mean that a sentence like

(14) would have a deep structure like (19). This is not an attractive solution as it would mean reformulating the phrase structure rules to allow for subjectless sentences.

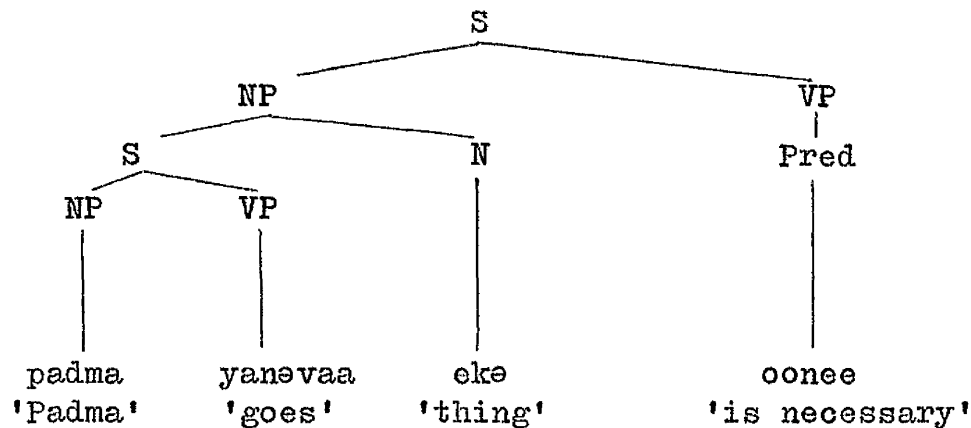
(19)



It is not possible to suggest, as in Chapter 4 for vææyam kere (try) in (57), that modal adjectives must be marked in the lexicon to meet the structural description of ekē Deletion, for (2)-(4) provide evidence to the contrary.

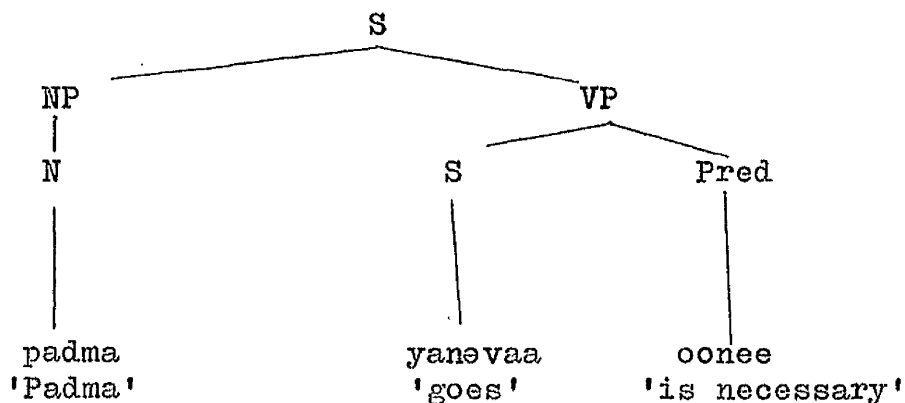
What is possible is an analysis like that suggested in Chapter 4 for paTangan (begin) in (56). Under such an analysis, (14) has a deep structure (20).

(20)



ekə Replacement now applies, deriving an intermediate phrase marker something like (21).

(21)



Since the subject NP of the embedded sentence has been removed by ekə Replacement the conditions for the Infinitive rule are met, and it applies to (21), converting yanəvaa (goes) to its infinitive form yannə (to go), then deriving a surface structure like (14). Similar deep structures and derivations can be postulated for (12) and (13). For (11), a special restriction is necessary, which blocks the Infinitive rule when a complement with a Non-Past main verb occurs with æti (probable).

This means that despite the evidence of (15), padma yanəvaa is analysed as a subject complement. The derived structure in (21) explains why (15) is not a relevant question.

The fact that Conjunction Reduction (see Ch. 9) can derive (23) from (22), and (25) from (24), illustrates that padma must be subject NP in sentences like (11)-(14), and yannə (to go), akDanne (to cry) etc. must be part of the verb phrase.

- (22) padma yanne oonee eet padma adimadi korenevaa
 'Padma' 'to go' 'is necessary' 'but' 'Padma' 'is trying to
 back out'

(Padma must go but she is trying to back out of it.)

- (23) padma yanne oonee eet adimadi korenevaa
 'Padma' 'to go' 'is necessary' 'but' 'is trying to back out'

(Padma must go but is trying to back out of it.)

- (24) padma aŋDanne æti eet padma daen
 'Padma' 'to have cried' 'is probable' 'but' 'Padma' 'now'
 bat kanevaa
 'is eating rice'

(Padma may have cried, but she is now eating her rice.)

- (25) padma aŋDanne æti eet daen bat kanevaa
 'Padma' 'to have cried' 'is probable' 'but' 'now' 'is eating
 rice'

(Padma may have cried, but is now eating her rice.)

Since (17) and (18) demonstrate that yanne (to go) in (14), for example, cannot be either an object complement or a Te NP complement, and since (23) demonstrates that it must be part of the verb phrase, the deep structure and derivational process suggested seem to be the most appropriate.

æti (probable) differs from the other modal adjectives in several ways. In (6), it was noted that it could not appear in pre-nominal position. (11) demonstrates that where it appears with a complement with a /Non-Past main verb, a different complement construction is selected. Although (11) is grammatical, (26), in which the complement has a Past tense main verb, is not. (12) is the grammatical 'Past' sentence corresponding to (11).

- (26) *padma æṁDuvaa æti
'Padma' 'cried' 'is probable'

(Padma probably cried.)

Also, as illustrated in (27) and (28), æti (probable) can occur with complement sentences in which the predicate contains an adjective or adverb. In these cases, the predicate appears in the Incomplete form. æti may not however appear with complements with nominal predicates, as in (29).

- (27) padma læjjaa æti
'Padma' 'shy' 'probable-is'

(Padma is probably shy.)

- (28) padma atəne æti
'Padma' 'there' 'probable-is'

(Padma is probably over there.)

- (29) *sunil horek æti
'Sunil' 'a thief' 'probable-is'

(Sunil is probably a thief.)

Where the complement sentence with æti (probable) is a negative sentence, a ve suffix is affixed to the negative particle, as in (30).

- (30) padma aṁDanne / aṁDanne nætuve æti
'Padma' 'is / was crying' NEG 'probable-is'

(It is likely that Padma isn't crying / didn't cry.)

puluvan (possible) and oonee (necessary) may, on the other hand, appear in prenominal position, and occur only with infinitive complements. As (31)-(34) illustrate, they cannot occur with complements in which the predicate is non-verbal or negative.

- (31) *padma laejjaa puluvan / oonee
 'Padma' 'shy' 'possible' 'necessary' 'is'

(It is possible that Padma is shy. / Padma must be shy.)

- (32) *padma atənə puluvan / oonee
 'Padma' 'there' 'possible' 'necessary' 'is'

(It is possible that Padma will be over there. / Padma must be over there.)

- (33) *sunil horek puluvan / oonee
 'Sunil' 'a thief' 'possible' 'necessary' 'is'

(It is possible that Sunil is a thief. / Sunil must be a thief.)

- (34) *padma { aḵDanne } næ tuve puluvan / oonee
 { aḵDanne }
 'Padma' 'cries' NEG 'possible' 'necessary' 'is'

(It is possible that Padma won't cry. / It is necessary that Padma shouldn't cry.)

The facts in (31)-(34) can be explained by the fact that there is no infinitive form of non-verbal predicates or negatives. Notice that the Infinitive rule is formulated to apply to verbs. The examples with æti (probable) contradict this generalisation, but I can find no explanation at present for the idiosyncratic behaviour of æti.

It was noted earlier that both the usual class of adjectives and the modal adjectives could take subject complements. In the case of normal adjectives, no restrictions are placed on the Te NPs that may optionally appear in sentences with subject complements. In the case of æti (probable), no Te NPs may appear in such sentences. Any Te NPs that appear in surface structure belong in deep structure to

the embedded, and not the matrix sentence. In the case of puluvaṇ (possible) and oonee (necessary), the only Te NP that may cooccur with a subject complement is one identical to the subject NP of the embedded sentence. (35) and (37) are ungrammatical, but (36) and (38) are not.

- (35) *sunilTe padma aḥDanne puluvaṇ (i)
'Sunil-to' 'Padma' 'to cry' 'is possible'

(*Sunil is able for Padma to cry.)

- (36) padmaTe aḥDanne puluvaṇ (i)
'Padma-to' 'to cry' 'is possible'

(Padma is able to cry.)

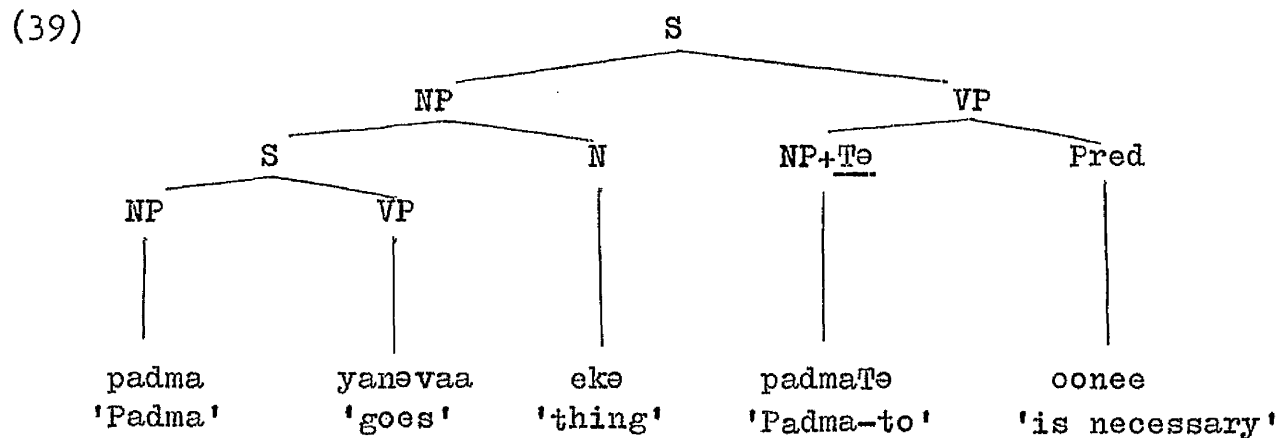
- (37) *sunilTe padma yanne oonee
'Sunil-to' 'Padma' 'to go' 'is necessary'

(Sunil wants Padma to go.)

- (38) padmaTe yanne oonee
'Padma-to' 'to go' 'is necessary'

(Padma wants to go.)

The subject NP of the complement sentence does not in fact appear in the surface structures (36) and (38). The deep structure of (38), for example, is something like (39).



(39) meets the structural description of Equi-NP Deletion, and hence the subject NP of the embedded sentence, padma, is obligatorily deleted. After ekə Deletion deletes the noun head of the complement construction, the Infinitive rule obligatorily converts yanevaa (goes) to its infinitive form yannə (to go). The surface structure thus derived is (38). A similar process occurs in the case of (36).

Modal sentences like (40)-(45), which contain the infinitive form venne (to be, become) of the ve Copula, present a problem of analysis.

- (40) padma aḥDenəvaa venne æti
'Padma' 'is crying' 'to be' 'is probable'

(It is probable that Padma is crying.)

- (41) padma æḥDuvaa venne æti
'Padma' 'cried' 'to be' 'is probable'

(It is probable that Padma cried.)

- (42) padma aḥDenəvaa venne puluvan
'Padma' 'is crying' 'to be' 'is possible'

(It is possible that Padma is crying.)

- (43) padma æḥDuvaa venne puluvan
'Padma' 'cried' 'to be' 'is possible'

(It is possible that Padma cried.)

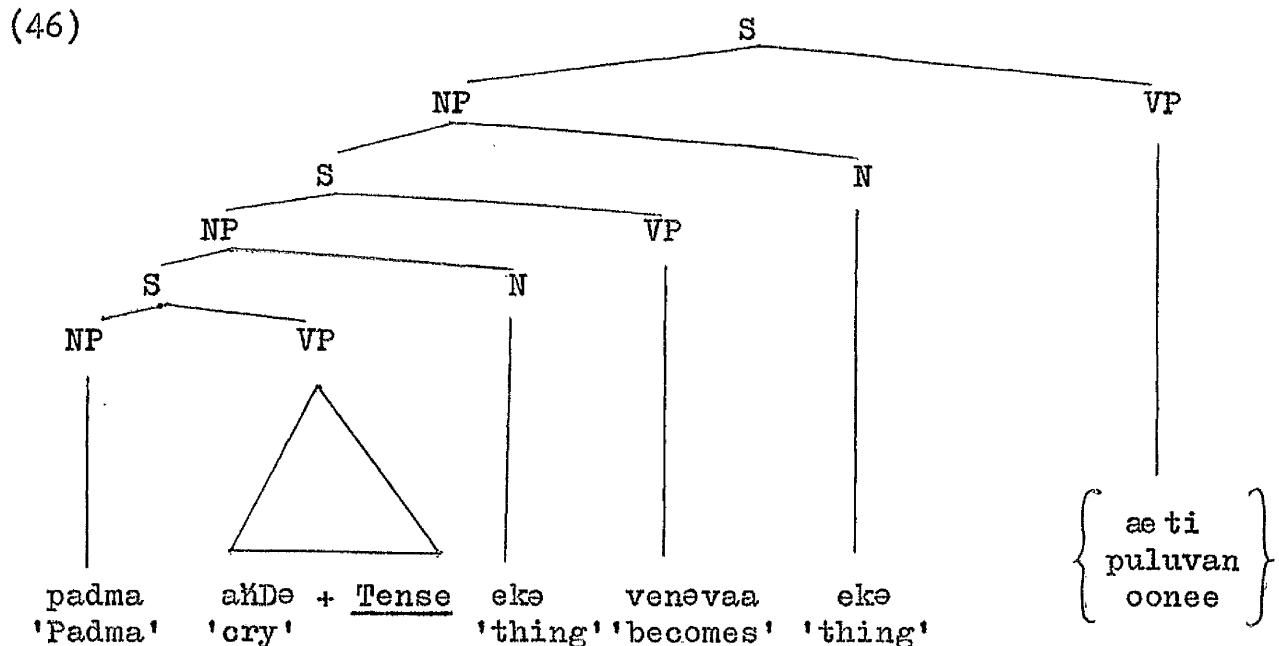
- (44) padma aḥDenəvaa venne oonee
'Padma' 'is crying' 'to be' 'is necessary'

(It must be that Padma is crying.)

- (45) padma aeḥḍuvaa venne oonee
 'Padma' 'cried' 'to be' 'is necessary'

(It must be that Padma cried.)

At first sight, it might appear as if such sentences could be derived quite simply from an underlying structure like (46).



However, several problems arise from such an analysis. First, the behaviour of æti (probable) in other complex sentences would lead us to expect venne æti sentences to be derived from underlying occurrences of 'vunaa (became) + æti'. Correspondingly, it could be expected that a form venevaa æti might be derived from an underlying occurrence of 'venevaa (becomes) + æti'. Instead, (47) is ungrammatical.

- (47) *padma aeḥḍenevaa venevaa æti
 'Padma' 'is crying' 'becomes' 'is probable'

(?It is probably happening that Padma is crying.)

Secondly, the ve Copula may occur as the sole constituent of a verb phrase with abstract nouns like væDee (the thing), æksidənt (accidents) etc., but may not occur with sentential subject NPs. The higher embedded sentence in (46) is, as (48) indicates, ungrammatical as an independent sentence.

- (48) *padma aMDənevaa venəvaa
 'Padma' 'is crying' 'becomes'
 (*Padma crying happens.)

Hence, postulating an underlying structure like (46) would mean that the phrase structure rules would have to be reformulated to allow such sentences to be generated if, and only if, they are embedded in the subject NP of sentences with modal predicates.

Thirdly, it can be noticed that the presence of venne (to be) in (42)-(45) allows for interpretations in which Padma's crying occurs in present or past time. (13) and (14) on the other hand, carry only a sense of futurity. Similarly (40) and (41) allow for interpretations in which Padma's crying occurs in present or past time. In (11) on the other hand, the Non-Past form aMDənevaa (is crying, will cry etc.) may as usual, be ambiguous between present and future time. Hence (11) may be interpreted as either 'Padma is probably crying' or 'Padma will probably cry'. For (40) however, only the former interpretation is possible.

These facts seem to indicate that venne (to be) in sentences like (40)-(45) may be a transformationally inserted element, which allows for tense variation in the complement sentence. I am not sure

at present however, how these facts can be adequately formalised.

Thus, modal adjectives in Sinhalese exhibit some of the properties of the usual class of adjectives, but also differ from these in significant ways. Notably, they appear in sentences with subject complements to which ekə Replacement applies. Infinitive complements are then derived by the usual rules outlined in Chapter 4. In the case of puluvan (possible) and oonee (necessary), such complements usually carry a sense of futurity. In the case of æti (probable), infinitive subject complements usually carry a sense of pastness. Where the main verb of the complement sentence is Non-Past, the Infinitive rule is blocked, and a vaa complement is derived. Such complements carry as usual, a sense of non-pastness. In general, æti (probable) behaves somewhat differently to the other two modal adjectives. Sentences with the others are constrained to contain only Tə NPs that are identical to the subject NP of the embedded sentence. Sentences with æti may not contain Tə NPs at all. As discussed above, there is also a set of sentences with modal adjectives in which the infinitive form of the ve Copula appears.

Modal constructions like (36) and (38) have negative counterparts like (49) and (50). bæhæ (impossible) is a negative modal adjective corresponding to puluvan (possible), while oonee næhæ (necessary NEG) is, predictably, the negative counterpart of oonee (necessary).

- (49) padmaTə aʔDanne bæ hæ
'Padma-to' 'to cry' 'impossible-is'

(Padma is not able to cry.)

- (50) padmaTə yanne oonee næ hæ
'Padma-to' 'to go' 'necessary' NEG

(Padma doesn't want to go.)

By the usual rule of Neg Placement it might also be expected that (11)-(14) would have negative counterparts like (51)-(54). Of such sentences however, only (54) is grammatical.

- (51) *padma aʔDənevaa ætte næ hæ
'Padma' 'is crying' 'probable' NEG

(It is not probable that Padma is crying.)

- (52) *padma aʔDanne ætte næ hæ
'Padma' 'to have cried' 'probable' NEG

(It is not probable that Padma cried.)

- (53) *padma aʔDanne bæ hæ
'Padma' 'to cry' 'impossible-is'

(It is not possible that Padma will cry.)

- (54) padma yanne oonee næ hæ
'Padma' 'to go' 'necessary' NEG

(Padma need not go.)

Corresponding to (13) and (14) however, there also exist grammatical negative sentences like (55) and (56), in which nominal predicates related to the modal adjectives puluvan (possible) and oonee (necessary) are used.

- (55) padma aʔDanne puluvankamak næ hæ
'Padma' 'to cry' 'a possibility' NEG

(There is no possibility of Padma crying.)

- (56) padma yannə ooneekamak næhæ
 'Padma' 'to go' 'a necessity' NEG

(There is no necessity for Padma to go.)

In the case of (11) and (12) no corresponding negative sentences occur. The only similar negative sentence indicating probability is (57), in which a subject complement with a pronominal head ekak (a thing) occurs. Such a sentence however carries a sense of futurity, rather than pastness or presentness, as in (11) and (12).²

- (57) padma aŋDəne ekak næhæ
 'Padma' 'crying' 'a thing' NEG

(It is not likely that Padma will cry.)

Hence negative modal constructions display several irregularities. Again, æti (probable) is distinguished from the other two modal adjectives, by having no possible negative counterpart.

2. Negative sentences like (57) exhibit several interesting properties, but will not be discussed here, as they are not relevant to a study of the modal adjectives.

CHAPTER 6

INVOLITIVE SENTENCES

Verb roots in Sinhalese appear in two distinct classes of finite inflected forms. Some verb roots are defective, and appear in only one of these forms, but all forms that do occur can be fitted into one of the two classes below. The table given in (1) illustrates what the Non-Past forms of these two classes look like for a selection of verb roots.

(1)

Verb Root		Class 1	Class 2
añDe	(cry)	añDenēvāa	æñDenēvāa
babēle	(shine)	babēlenēvāa	bæbēlenēvāa
ane	(knead)	anenēvāa	ænenēvāa
ani	(prick)	aninēvāa	ænenēvāa
dañgēle	(wriggle)	dañgēlenēvāa	
ævidi	(walk)	ævidinēvāa	ævidenēvāa
gote	(knit)	gotenēvāa	getenēvāa
pere	(strain)	perenēvāa	perenēvāa
ure	(suck)	urenēvāa	irenēvāa
ire	(tear)	irenēvāa	irenēvāa
pupe	(bloom)		pipenēvāa
vidi	(pierce)	vidinēvāa	videnēvāa

Verb roots are in general represented here as that part of

Class 1 forms that remains when the nəvaa suffix is removed. The term 'verb root' is used as an abstraction that refers to the common properties of a set of inflected verb forms, and hence the representations of verb roots given in (1) do not necessarily represent forms that actually occur in the language. For instance, in the case of verbs which have no Class 1 form, verb roots are set up in such a way that the corresponding Class 2 form can be predicted from it in a regular way. pupe (bloom) in (1) is such a verb root. daŋgele (wiggle) on the other hand, is a verb root which has no corresponding Class 2 form.

Class 1 and Class 2 verb forms are phonologically and semantically distinct, but nevertheless, certain consistent phonological and semantic relationships exist between them. The Non-Past forms of both classes, as represented in (1), consist of a suffix nəvaa and a stem.

A three-term difference, close, mid and open, can be set up for vowels in Sinhalese. These vowels may also be distinguished approximately as front, central or back.¹ (2) is an approximate tabulation of the vowel sounds in these terms.

1. For a detailed description of the vowel system in Sinhalese see M.W.S. de Silva (1957), vol. 1, Ch. 3 pp. 41-43.

(2)

	Front	Central	Back
Close	i		u
Mid	e	ə	o
Open	æ		a

In Class 1 forms, the stem may contain vowel sounds of every category. ane, babele, ævidi, gote, pere, ure, ire illustrate this. The stem-final vowel may be either mid central, or close front as ane and ani illustrate. In the corresponding Class 2 forms, the stem-final vowel is always mid front, as in æne, ævide, gete, pere, ire etc. Back vowels in the stem are related to their counterparts in Class 1 stems by a process of fronting, while all other vowels remain constant. Thus, Class 1 stems ure and ire have close front and close back vowels respectively. The corresponding Class 2 stem ire has a close front vowel in both cases.²

Hence, given a Class 1 form, it is always possible to predict the corresponding Class 2 form. ^{but see pupa in table 10.} The converse is not true. Class 2 stem æne may have a corresponding Class 1 stem ane (knead) or

2. This is a much-simplified account of the phonological relationship between Non-Past Class 1 and Class 2 forms. See M.W.S. de Silva (1957), vol. 1, especially Ch. 6 pp. 208-211, for an examination of the phonology of all Class 1 and Class 2 forms, referred to there as 'Active' and 'Passive'.

ani (prick). Similarly the Class 2 stem ire has two corresponding Class 1 forms, ire (tear) and ure (suck). That it does not have a third, iri, is accidental rather than predictable.

Similar systematic relationships can be noted between the past forms, and in fact all other forms, of these verb classes.

The semantic relationship between some Class 1 and Class 2 forms is similar to that pointed out by Fillmore as existing between the English verbs 'die' and 'kill'.³ McCawley suggests that 'kill' is derived from an underlying instance of 'cause to die' or 'cause to become not alive', where 'die' itself is semantically complex.⁴ The verbs in the Sinhalese equivalents of the English sentences 'Mary died' and 'John killed Mary' are phonologically, as well as semantically, related.

The relationship between other pairs of Class 1 and Class 2 forms resembles that between the two occurrences of 'open' in 'The door opened' and 'John opened the door'. Fillmore considers such uses of 'open' in terms of Case Grammar.⁵ Lakoff postulates a causative transformation that relates such sentence types.⁶

3. C.J. Fillmore (1968b), p. 377.

4. J.D. McCawley (1968), p. 73.

5. C.J. Fillmore (1966), pp. 363-365.

6. G. Lakoff (1970), Ch. 5 pp. 41-43.

The relationship between other pairs cannot be demonstrated as simply in English, and can at best be given somewhat inadequately as that existing between the underlined portions in sentences like 'Padma cried' and 'Padma couldn't help crying, or, burst out crying', and other pairs like 'Padma laughs volitively' and 'Padma laughs involitively'.

In all these cases, Class 1 and Class 2 forms seem to be differentiated by an element of volition.

The a sentences in (3)-(6) below are those in which Class 1 forms typically appear. They include both transitive and intransitive sentences. The b, c and d sentences in (3)-(6) are those in which Class 2 forms typically appear. These are all intransitive sentences. Some of them contain Tə NPs, and some contain a NP + Postposition.⁷ (3) and (4) contain Non-Past forms, but (5) and (6) introduce Past forms.

-
7. atin phrases like those which appear in (5d) and (6d) are also sometimes used to convey a sense of agency rather than instrumentality, as is conveyed in these sentences. sunil atin carries this sense of agency in a sentence like:

sunil atin hari væ Də kerenəvaa
'Sunil-by' 'fine things' 'doing happens'

(Fine things are done by Sunil.)

Class 2 forms are used in such sentences to convey a sense of 'passiveness' rather than 'involution'. The relationship of such 'passives' to either sentences with Class 1 forms, or other sentences with Class 2 forms, is not examined here.

- (3) a laməya aŋDenəvaa
 'the child' 'cries'

(The child cries volitively.)

- b laməyaTə æŋDenəvaa
 'the child-to' 'crying happens'

(The child cries involitively.)

- (4) a padma naTənəvaa
 'Padma' 'dances'

(Padma dances volitively.)

- b padmaTə nəTənəvaa
 'Padma-to' 'dancing happens'

(Padma dances involitively.)

- c padma(və) nəTənəvaa
 'Padma'ACC 'dancing happens'

(Padma's body sways involitively.)

- (5) a sunil gaha kəpuvaa
 'Sunil' 'the tree' 'cut'

(Sunil cut the tree.)

- b gaha kəpunaa
 'the tree' 'cutting happened'

(The tree got cut.)

- c gaha lanuvəTə kəpunaa
 'the tree' 'the rope-to' 'cutting happened'

(The tree got cut by the rope.)

- d gaha sunil atin kəpunaa
 'the tree' 'Sunil's hand-by' 'cutting happened'

(The tree got cut down accidentally by Sunil.)

- (6) a sunil padmave tallukēlaa
 'Sunil' 'Padma'ACC 'pushed'

(Sunil pushed Padma.)

- b padma(vē) talluvunaa
 'Padma'ACC 'pushing happened'

(Padma got pushed.)

- c padma(vē) huleṅgeṭē talluvunaa
 'Padma'ACC 'the wind-to' 'pushing happened'

(Padma got pushed by the wind.)

- d padma(vē) sunil atin talluvunaa
 'Padma'ACC 'Sunil's hand-by' 'pushing happened'

(Padma got accidentally pushed by Sunil.)

Is it possible to set up sentences with both Class 1 and Class 2 forms as simple sentences generated by the phrase structure rules in Chapter 2? Sentences like the a sentences in (3)-(6) are discussed in Chapter 2, and it is shown that the phrase structure rules formulated there are capable of generating them. If the b, c, and d sentences are also to be regarded as simple sentences, then these phrase structure rules must account for them as well. This raises problems.

Firstly, sentences like (3b) and (4b) contain no subject NP in surface structure. If they are classed as simple sentences, the phrase structure rules must be reformulated to generate subjectless sentences as well. (3b) and (4b) both contain only one noun phrase in surface structure, and this is a Tē NP. That this cannot be regarded as a subject NP is clear from the evidence below.

In Chapter 3, we noted that relativisation operates freely when the noun head of a noun phrase is identical with the subject NP of a sentence embedded in it; almost as freely when the identity is with the object NP; but subject to various restrictions when the identity is with any other noun phrase. When a sentence like (3b) is embedded in a noun phrase laməya (the child), relativisation cannot apply. This is seen in the ungrammaticality of (7).

- (7) *æ ɲDene laməya
 'crying happening' 'the child'

(the child to whom crying happens)

Hence, it is clear that laməyaTə (to the child) in (3b) cannot be analysed as subject NP, but is, as the Tə suffix indicates, a Tə NP within the verb phrase.

In (8), (3b) is the second conjunct of a conjoined sentence in which the subject NP of the first conjunct is laməya (the child). If laməyaTe (to the child) were the subject NP of (3b), then it might be expected that Conjunction Reduction could apply to (8) to derive a sentence like (9). The ungrammaticality of (9) shows that this is not possible.

- (8) laməya bat kanəvaa yi laməyaTə æ ʔDenəvaa yi
 'the child' 'rice' 'is eating' 'and' 'the child-to' 'crying' 'and'
 happens'
(The child is eating his rice, and he is crying involitively.)
- (9) *laməya bat kanəvaa yi æ ʔDenəvaa yi
 'the child' 'rice' 'is eating' 'and' 'crying happens' 'and'

Secondly, the only noun phrase in a sentence like (6b), *padma(və)* appears with an optional accusative suffix. If this noun

ve suffix of padmave in (10) cannot remain after Conjunction

Reduction. However, when Conjunction Reduction applies to a sentence like (15) in which both subject NPs occur with the optional suffix, it may be retained as in (16).

- (14) *padmave aḥDenevaa yi talluvunaa yi
'Padma' ACC 'is crying' 'and' 'pushing happened' 'and'

- (15) padma (ve) talluvunaa yi padma (ve) kaameree ayineṭe
'Padma' ACC 'pushing' 'and' 'Padma' ACC 'to the corner of
happened' the room'

yævunaa yi
'sending happened' 'and'

(Padma got pushed and she was flung to the corner of the room.)

- (16) padma (ve) talluvunaa yi kaameree ayineṭe yævunaa yi
'Padma' ACC 'got pushed' 'and' 'to the corner of' 'sending' 'and'
the room' happened'

(Padma got pushed and flung to the corner of the room.)

Since padma(ve) in sentences like (6b) are to be analysed as subject NPs, a question arises as to whether ve must be claimed to be an optional nominative suffix as well. (17) indicates that it cannot be a nominative suffix in sentences with Class 1 main verbs.

- (17) *padma ve aḥDenevaa
'Padma' ACC 'cries'

Thirdly, analysing sentences with both Class 1 and Class 2 forms as simple sentences ignores the consistent and systematic phonological and semantic relationships between the two sets of verb forms.

In Chapter 2 (p. 95), it was noted that monevaa kereṇevaade (is doing what) could be used to question all verb phrases with

activity verbs. Correspondingly, monēvaa venēvaade (what is happening) can be used to question all verb phrases with Class 2 verbs. Hence the b and c sentences in (4), for example, constitute grammatical answers to (18).

- (18) padmaTə monēvaa venēvaa də
 'Padma-to' 'what' 'is happening' Q

(What is happening to Padma?)

Further, adverbial elements like ooneevaaTə (deliberately) cannot appear in sentences with Class 2 verbs. (19) illustrates this. There are also no Class 2 imperative forms. (20) illustrates this.

- (19) *padmaTə ooneevaaTə æ̃Denēvaa
 'Padma-to' 'deliberately' 'crying happens'

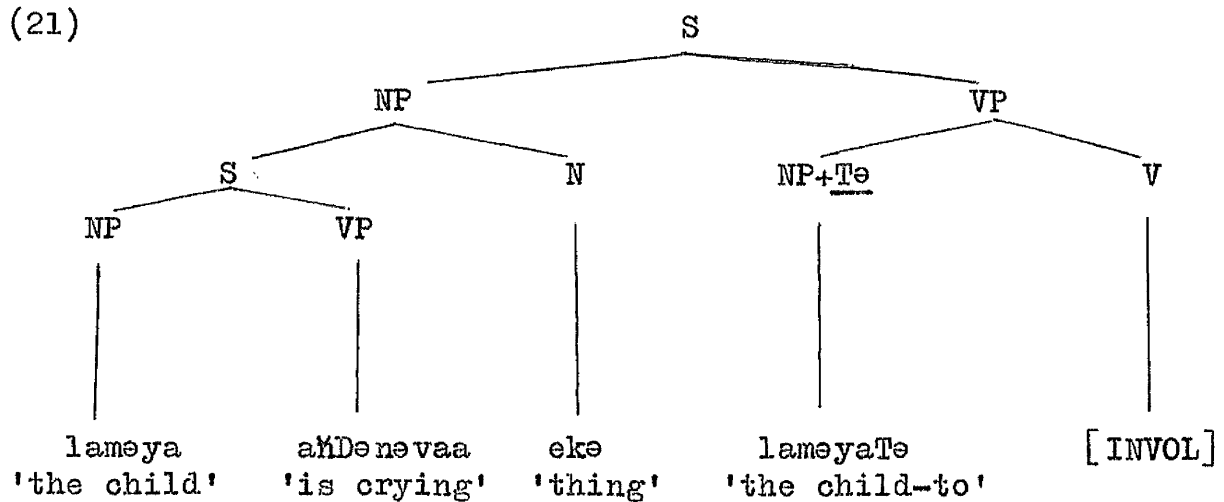
(*Padma cries involitively deliberately.)

- (20) *æ̃Denne
 'crying happen'

(*Cry involitively.)

These facts suggest that some common feature, 'involitive' say, is present in all Class 2 forms. In the following discussion I use the term 'involitive' to refer to all Class 2 verbs, and the term 'volitive' to refer to all Class 1 forms.

If an abstract verb [INVOL] is set up, it is possible to postulate complex underlying structures for all involitive sentences, in which volitive sentences are embedded as subject complements. In this case, the deep structure of (3b) will be something like (21).



The structural description of Equi-NP Deletion is met in (21), and hence the subject NP of the embedded sentence, laməya (the child), is obligatorily deleted. Ordinarily, ekə Deletion would now apply obligatorily, and then the Infinitive rule would apply obligatorily to aMDenevaa (cries). Where the main verb of the matrix sentence is an abstract verb however, a rule of 'Verb Raising' must apply to raise the main verb of the embedded sentence into the abstract main verb of the matrix sentence. Rules of this type are discussed by G. Lakoff as 'Inchoative' and 'Causative', by McCawley as 'Predicate Raising' and by R. Lakoff as 'Plugging-in'. R.P.T. Jayawardana refers to a similar rule of 'Verb Raising' for Sinhalese.⁸ For the present purpose, the rule can be stated as follows.

8. G. Lakoff (1970), Ch. 5 pp. 33-43; J.D. McCawley (1968), pp. 71-80; R. Lakoff (1968); and R.P.T. Jayawardana (1971), Ch. 7.

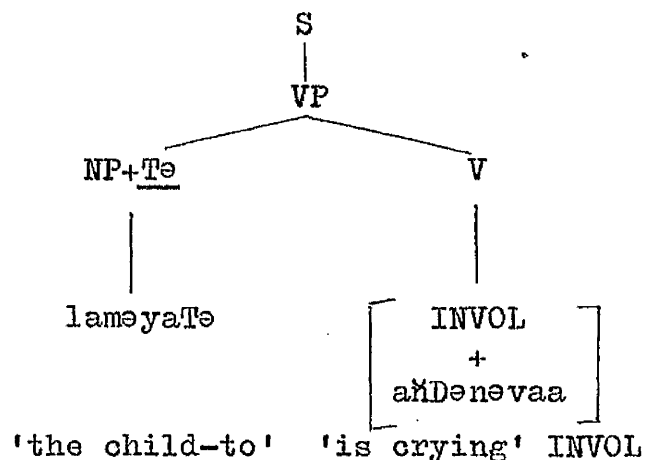
(22) Verb Raising

$$SD : [X - [[X - V]_S - \underline{ekə}]_{NP} - X - \left[\begin{array}{c} V \\ +Pro \end{array} \right]]_S \Rightarrow OBL$$

	1	2	3	4	5	6
SC :	1	2	0	4	5	6+3

This rule will now apply to (21) to raise aḡDenevaa (cries) into the abstract verb [INVOL]. Since ekə (thing) does not occur as part of the subject NP in involitive sentences, ekə Deletion must be constrained to apply obligatorily when the main verb of the matrix sentence is an abstract verb. The subject NP of (21) will now be reduced to zero, and the derived phrase marker will look something like (23).

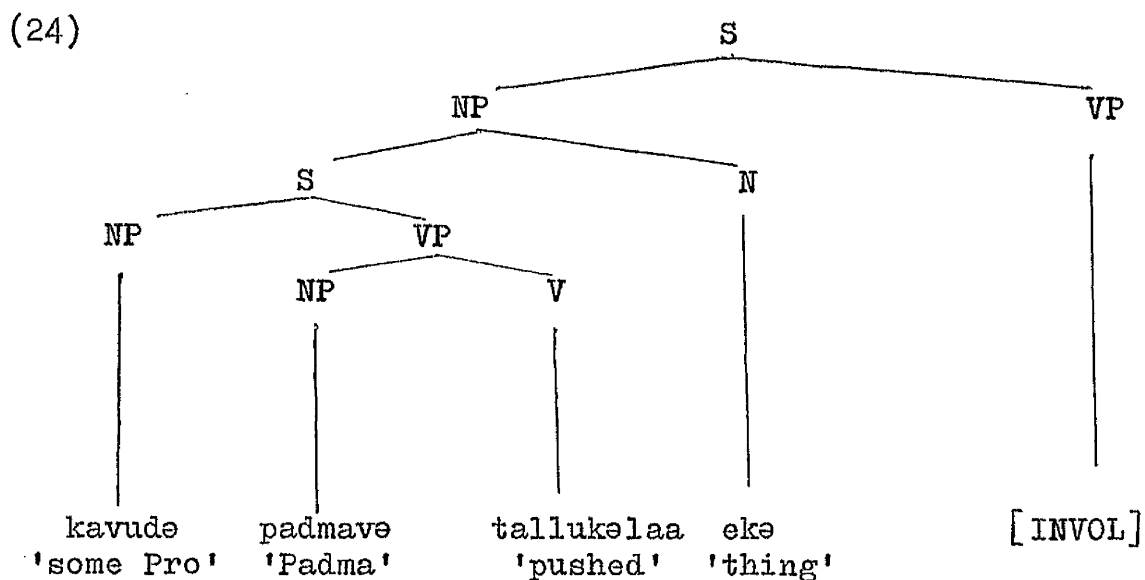
(23)



Given an input 'INVOL+aḡDenevaa', the phonological component will derive the involitive form æḡDenevaa (crying happens). In subsequent diagrams, involitive forms will be given, for convenience, instead of a more accurate representation of the main verb as in (23).

A derived phrase marker like (23) accounts for the lack of a subject NP in surface structures like (3b) and (4b).

Given an abstract verb [INVOL], it can be suggested that the deep structure of a sentence like (6b) is (24). A similar deep structure can be postulated for (5b).

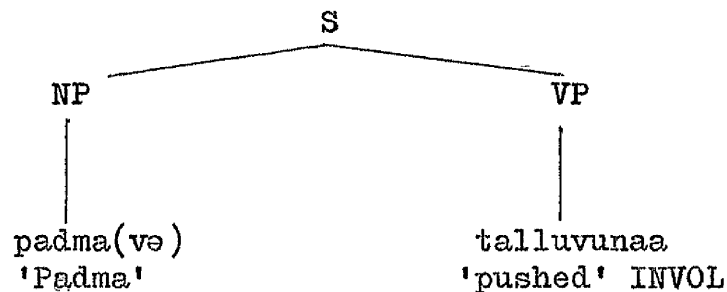


Verb Raising now incorporates the main verb of the embedded sentence, tallukelaa (pushed), into the abstract main verb of the matrix sentence. After phonological rules apply, the involitive form talluvunaa (got pushed) is derived. By the constraint placed on eke-Deletion, this rule now applies obligatorily. In Chapter 4, an optional rule of Unspecified NP Deletion was formulated. The embedded sentence in (24) meets the structural description of this rule, and hence the unspecified subject NP may be deleted. For such cases however, Unspecified NP Deletion needs to apply obligatorily.

This leaves the object NP of the embedded sentence,

padmave, as the sole constituent of the subject NP in (24). Since Case Marking has already applied on the first cycle in (24), this noun phrase is already marked with the accusative suffix ve. General pruning conventions of the sort postulated by Ross now delete the S - node of the embedded sentence,⁹ yielding a derived phrase marker like (25), in which padmave occurs as subject NP. Such pruning conventions are, by Ross's definition, not considered a part of the ordered rules of the grammar, but rather as conditions upon the well-formedness of trees, which are stated once in a linguistic theory.

(25)



Since padmave is now in subject NP position, it should be marked with the nominative suffix \emptyset when Case Marking applies on the second cycle. However, the presence of an optional ve suffix in sentences like (6b) seems to indicate that this does not always happen. It seems rather that the accusative suffix is not obligatorily deleted except in some environments, e.g. where Conjunction Reduction applies to (10) to derive (11). Such a derivation offers some explanation for the presence of an optional accusative suffix in the subject NP of sentences like (6b).

9. J.R. Ross (1966); and also (1967), Ch. 3.

kavudē (some Pro) in (24) is a noun phrase unspecified other than for the feature [+Animate], and refers to some unknown, unspecified or imaginary force responsible for the action. In general, only animate noun phrases occur as subjects of transitive sentences in Sinhalese. Transitive sentences occasionally occur with semantically inanimate subjects, as in (26). In such cases, there usually exists a corresponding sentence like (27) in which the noun phrase in question appears as an instrumental adverbial.

- (26) gaNvaturē kuḥburu paalukēlaa
 'the floods' 'the fields' 'devastated'

(The floods devastated the fields.)

- (27) gaNvaturēte kuḥburu paaluvunaa
 'the floods-to' 'the fields' 'devastating happened'

(The fields got devastated by the floods.)

Such pairs generally occur with nouns like avvē (the sun), væsse (the rain) etc. which designate elemental forces, and in sentences like (26), such nouns can be considered to contain a grammatical feature [+Animate]. Similarly, kavudē, or more accurately,

$$\left[\begin{array}{l} +N \\ +Pro \\ +Animate \end{array} \right]$$
 refers to some unspecified force which is marked [+Animate]

In some cases, an analysis like (24) necessitates claiming the existence of unusual sentences. In the case of a sentence like (28) for example, it is claimed that a sentence like (29) is embedded in its deep structure. Earlier we noted that pipenevaa (blooms) had no volitive counterpart. But it is, in fact, possible to envisage

unusual, but grammatical sentences like (30). Hence, the fact that some unusual sentences will be embedded in deep structures like (24) does not necessarily mean that these sentences cannot be generated by the existing rules, or that they are ungrammatical.

- (28) male pipenēvaa
 'the flower' 'blooming happens'

(The flower blooms.)

- (29) kavudə male ?puppēnēvaa, popiyēnēvaa
 'some Pro' 'the flower' 'blooms'

(Some Pro makes the flower bloom.)

- (30) vidyaagḥeyaa male ?puppēnēvaa, popiyēnēvaa
 'the scientist' 'the flower' 'blooms'

(The scientist makes the flower bloom.)

Sentences like (6c) and (6d), and also (5c) and (5d) can be derived from deep structures similar to (24) which, in addition, contain optional adverbial elements like huleḥgeTe (for the wind) and sunil atin (by Sunil's hand) in the matrix sentence.

Sentences like (4c) present a problem for an analysis of the type suggested. Though the subject NP padma(və) appears with an optional accusative suffix, the main verb næTēnēvaa (dances involuntarily) has no corresponding transitive volitive form, but rather an intransitive volitive form naTēnēvaa (dances). In such a case, a sentence like (31) would not only be unusual, but also ungrammatical.

- (31) *kavudə padmavə naTēnēvaa
 'some Pro' 'Padma' 'dances'

However, only a few other motion verbs, if any, may occur

in such constructions. ævidenevaa (walk involitively), næ giTenevaa (rise involitively) are some examples. As in (4c), the sentences in which these appear seem to carry a sense of a person's body being affected by the relevant motion. Since there are very few such examples I will not alter the analysis suggested here in order to account for them.

In addition to imposing special constraints on ekə Deletion, and Unspecified NP Deletion, the analysis of involitive sentences suggested above involves postulating an abstract verb [INVOL]. The concept of abstract verbs has been introduced into transformational grammar by several linguists.

G. Lakoff postulates two pro-verbs 'Inchoative' and 'Causative' for English on the basis of the semantic relationships existing between the verbs in pairs of sentences like 'The sauce is thick' and 'The sauce thickened' on the one hand, and pairs like 'The sauce thickened' and 'John thickened the sauce' on the other.¹⁰

Robin Lakoff sets up abstract verbs on a somewhat different basis.¹¹ She sets up 'meaning-classes' of verbs, where a 'meaning-class' is defined as 'a set of semantic markers that can function in syntactic rules', and is a class which may contain an unlimited

10. G. Lakoff (1970), Ch. 5.

11. R. Lakoff (1968), Ch. 5.

number of real verbs, but only one abstract verb. On this basis, she sets up abstract verbs of ordering etc. for Latin and English. Such verbs are later deleted by a special abstract verb deletion rule.

Kiparsky and Staal postulate an abstract causative verb for Sanskrit, and justify assigning complex underlying structures to causative sentences in Sanskrit on the grounds that it enables the explanation of a range of other grammatical facts. They claim:

- a "A system such as Panini's, in which sentences are not derived transformationally, is therefore unable to treat reflexivisation as a single process".
- b ". . . the transformational derivation of causatives from simple sentences functioning as objects of a verb of causation also enables us to explain the case forms in which noun phrases of the causative construction can appear".¹²

J.R. Ross (1970a) presents syntactic arguments to suggest that in underlying structure declarative sentences are object complements of an abstract verb containing the features [+ communication, + linguistic, + declarative].

In the case of involitive sentences in Sinhalese, the consistent and systematic phonological and semantic relationships that exist between volitive and involitive forms seem to provide some justification for postulating an abstract verb [INVOL]. This verb will be specified with a feature [+ Involitive], which among other things, prevents it occurring with adverbials like ooneevaaTe (deliberately),

12. P. Kiparsky and J.F. Staal (1969), p. 102.

or in imperatives. It must also be questioned by a special form, monēvaa venēvaade (what is happening).

A special rule of Abstract Verb Deletion is not needed for elements like [INVOL]. Instead, a rule of Verb Raising incorporates the main verb of the complement sentence into it. Involitive verb forms are then derived by the application of phonological rules to instances of [INVOL] plus a volitive form. This accords with the fact noted earlier, that given a volitive form of any verb in Sinhalese, its involitive counterpart may be uniquely determined.

Postulating an entity [INVOL] also explains why sentences like (3b) and (4b) are subjectless in surface structure, without necessitating the reformulation of the phrase structure rules to generate subjectless sentences as well. It also provides an explanation for the presence of an optional accusative ve suffix in the subject NP of sentences like (6b).

CHAPTER 7

CAUSATIVE SENTENCES

Chapter 6 dealt with two distinct classes of finite verbs in Sinhalese, volitive and involitive verbs. Volitive verbs themselves include two distinct sets of finite forms. In Chapter 6 only one of these sets, Class 1 verbs, were discussed. These Class 1 forms contrast both phonologically and semantically in a consistent way with another set of volitive forms which are distinguished in the table in (1) as 'Causative' verbs.

(1)

Verb Root		Class 1	Causative
aṁDe	(cry)	aṁDeṇevaa	aṁDeveṇevaa
naTe	(dance)	naTeṇevaa	naTeveṇevaa
tallu kərə	(push)	tallu kəreṇevaa	tallu kəreveṇevaa
kape	(cut)	kapenevaa	kappenevaa

Though Class 1 and Causative verbs are phonologically and semantically distinct, nevertheless, as with volitive and involitive verbs, systematic phonological and semantic relationships exist between them. The table in (1) represents the Non-Past Class 1 and Causative forms of certain verb roots. In general, causative stems are formed by affixing a ve suffix to the verb root. In certain

environments, the phonological component effects other changes, deriving for instance, a causative stem kappe from a verb root kape.¹ Such differences however are predictable, and are not strictly relevant to this study.

Semantically, the two sets of verb forms are distinguished by a feature of causation.

The a sentences in (2)-(5) below are those in which Class 1 forms typically appear. They include both transitive and intransitive sentences. The b and c sentences are those in which causative forms typically appear. These are all transitive sentences. Some of them contain a NP + Postposition, sunilTe kiyelaa, glossed here as 'by Sunil'. In my dialect a similar agentive adverbial, sunil lavvaa (also 'by Sunil'), may substitute for this in the types of sentences illustrated below.

- (2) a padma aḿDeṇevaa
 'Padma' 'cries'

(Padma cries.)

- b mame padmave aḿDeṇevaa
 'I' 'Padma' 'cry' CAUSE

(I make Padma cry.)

- c mame sunilTe kiyelaa padmave aḿDeṇevaa
 'I' 'by Sunil' 'Padma' 'cries' CAUSE

(I get Sunil to make Padma cry.)

1. This is an oversimplified account of the processes involved. For a more detailed discussion of the phonology of causative forms see M.W.S. de Silva (1957), especially vol. 1, Ch. 1 pp. 8-11, and Ch. 5 pp. 138-141.

- (3) a padma naTəneṇvaa
'Padma' 'dances'

(Padma dances.)

- b mame padmave naTəveṇvaa
'I' 'Padma' 'dances' CAUSE

(I make Padma dance.)

- c mame sunilTə kiyəlaa padmave naTəveṇvaa
'I' 'by Sunil' 'Padma' 'dances' CAUSE

(I get Sunil to make Padma dance.)

- (4) a mame gaha kapəṇvaa
'I' 'the tree' 'am cutting'

(I am cutting the tree.)

- b mame sunilTə kiyəlaa gaha kappəṇvaa
'I' 'by Sunil' 'the tree' 'cut' CAUSE

(I am getting Sunil to cut the tree.)

- (5) a mame padmave tallu kəṇəṇvaa
'I' 'Padma' 'push'

(I push Padma.)

- b mame sunilTə kiyəlaa padmave tallu kəṇəṇvaa
'I' 'by Sunil' 'Padma' 'push' CAUSE

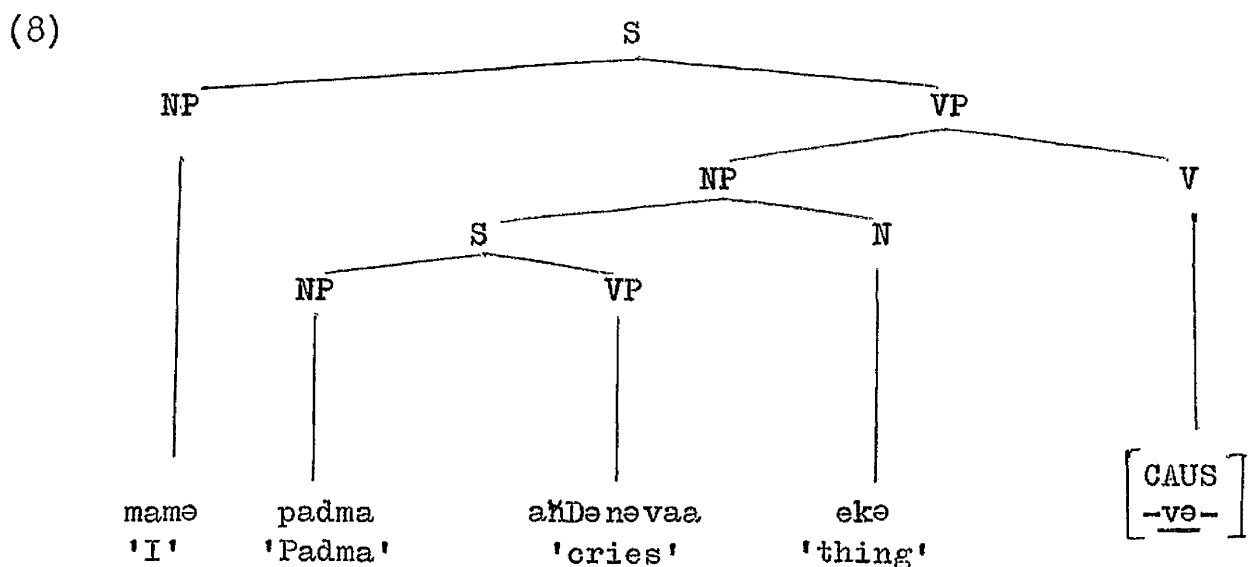
(I get Sunil to push Padma.)

Although all the b and c sentences in (2)-(5) are transitive, b and c in (2) and (3) demonstrate that causative counterparts of intransitive sentences with Class 1 verbs may appear with or without an agentive adverbial. In (4) and (5) however, the causative counterparts must obligatorily contain an agentive adverbial. (6) and (7) below are ungrammatical, except under an interpretation in which I get an unspecified someone to cut the tree, or push Padma.

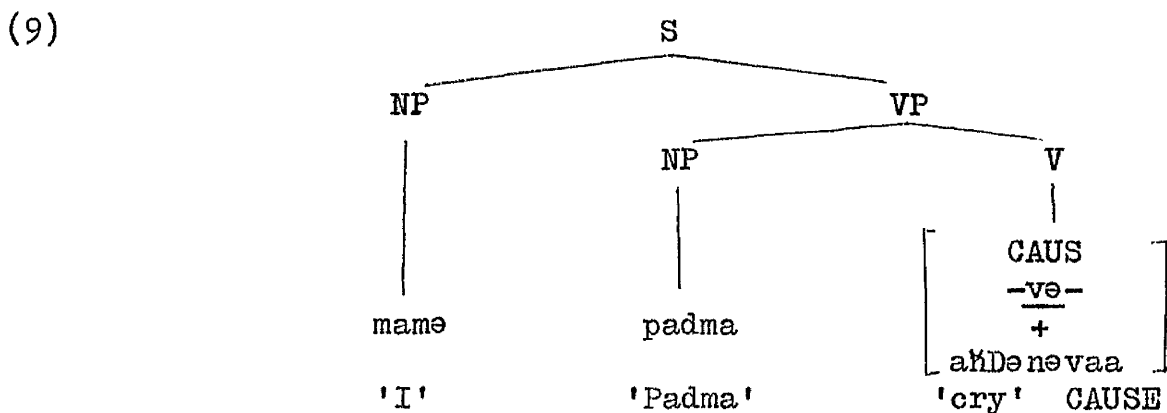
- (6) *mame gaha kappenevaa
 'I' 'the tree' 'cut' CAUSE
- (7) *mame padmave tallu kerevenevaa
 'I' 'Padma' 'push' CAUSE

As noted earlier, the phrase structure rules formulated are capable of generating sentences like the a sentences in (2)-(5). If the b and c sentences are also considered simple sentences generated by the phrase structure component, there is no explanation for why all causative verbs must appear in transitive sentences, but only some must occur with an obligatory agentive adverbial. Such an analysis also ignores the phonological and semantic relationships between Class 1 and causative verbs.

Can the causative b and c sentences be derived from complex underlying structures? If an abstract verb $\left[\begin{smallmatrix} \text{CAUS} \\ -\text{ve}- \end{smallmatrix} \right]$ is postulated, it is possible to set up a deep structure like (8) for (2b), in which a sentence with a Class 1 form appears as object complement of the abstract verb.



(8) meets the structural description of Verb Raising, and hence this rule will apply to it, raising aMDenevaa (cries) into the abstract main verb of the matrix sentence, $\left[\begin{array}{c} \text{CAUS} \\ \text{-ve-} \end{array} \right]$. In Chapter 6 ekə Deletion was constrained to apply obligatorily when the main verb of the matrix sentence was an abstract verb. Such a constraint is needed because ekə (the thing) does not appear as part of the subject NP in involitive sentences, or as part of the object NP in causative sentences. Given this constraint, ekə Deletion now applies to (8) to delete the noun head of the object complement. padma is then left as the sole constituent dominated by the object NP node in (8). The general pruning conventions referred to in Chapter 6 now apply to delete the S - node dominating padma, and leave it under the immediate domination of the object NP node of the matrix sentence. (9) is the resulting derived structure.

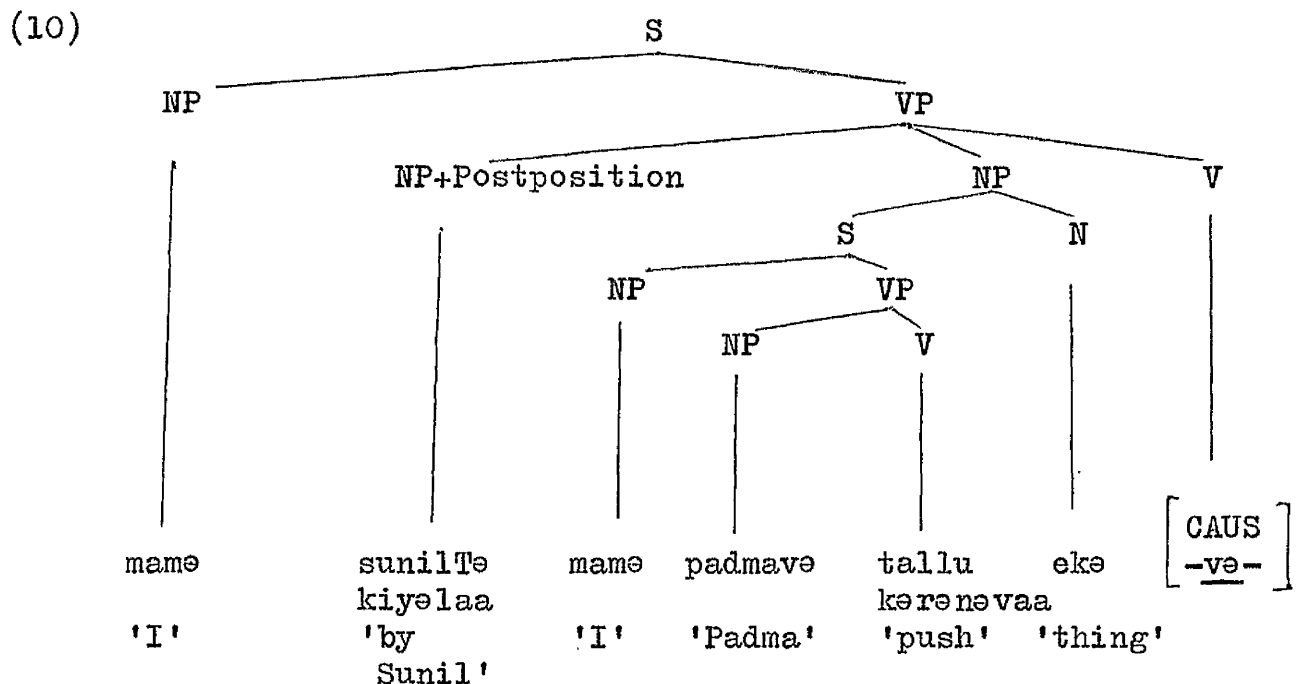


On the second cycle, Case Marking will apply as usual to mark the animate object NP padma in (9) with the accusative suffix ve. Phonological rules will subsequently spell out $\left[\begin{array}{c} \text{CAUS} \\ \text{-ve-} \\ + \\ \text{aMDenevaa} \end{array} \right]$

as añDevenevaa (cause to cry). In future examples, causative forms like the latter will, for convenience, be given directly in derived phrase markers. (2b) is the resulting surface structure.

Sentences like (2c) seem to be derived from similar deep structures in which the matrix sentence contains a NP + Postposition sunilTe kiyelaa (by Sunil). Similar derivations can also be suggested for (3b) and (3c).

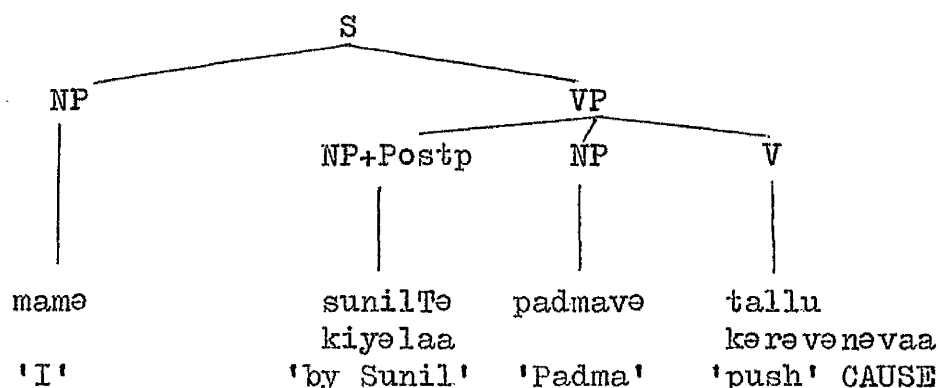
With an abstract causative verb, it is also possible to set up a deep structure like (10) for (5b).



It will be noticed that the subject NP of the embedded sentence is given as mame (I) rather than sunil. In order to derive a surface structure like (5b), the following transformational rules must apply to (10): Equi-NP Deletion, Verb Raising, and eke Deletion.

The subject NP of the embedded sentence must be such that it can be deleted by Equi-NP Deletion. Verb Raising will then raise tallu-kərenevaa (push) into the abstract causative verb; ekə Deletion will delete the pronominal head of the object complement; and padmave will be left as the sole constituent dominated by the object NP node of the main sentence. After tree pruning, a derived structure like (11) will result. Since padmave is now object NP of the derived phrase marker, Case Marking will apply vacuously to leave it in this same form.

(11)



Given an underlying structure like (10), the nearest noun phrase to the subject NP of the embedded sentence in the sentence being processed, which is not dominated by it, appears to be sunil in the NP + Postposition sunilTə kiyəlaa (by Sunil). Hence it might seem that if the structural description of Equi-NP Deletion is to be met, the subject NP in the embedded sentence must be sunil and not mame (I). However, the agentive adverbial sunilTə kiyəlaa (by Sunil) has some strange properties. kiyəlaa usually appears as the perfective form of the verb root kiye (say, tell). sunilTə has the same form as

a Tə NP. The whole phrase can, in some other context, mean 'having told Sunil'.

It has already been noted that a similar agentive adverbial sunil lavvaa may replace sunilTə kiyəlaa in all the sentences given above. What is more significant is that there are a number of such 'agentive adverbials' that may appear in the appropriate causative sentences. (12)-(15) are examples.

- (12) mame sunilvə daalaa gaha kappənevaa
 'I' 'Sunil' 'having put' 'the tree' 'cut' CAUSE

(Having put Sunil on to the job, I am getting the tree cut.)

- (13) mame visidenekvə yodəvelaa vā Dee kəpənevaa
 'I' 'twenty people' 'having employed' 'the job' 'do' CAUSE

(Having employed twenty people, I am getting the job done.)

- (14) padma saapuvəTə diilaa gavumə massənevaa
 'Padma' 'the shop-to' 'having given' 'the frock' 'sew' CAUSE

(Padma is getting the frock tailored by the shop.)

- (15) mame padmaTə baarediilaa kəvun hæ devvaa
 'I' 'Padma-to' 'having entrusted' 'kavun' 'make' CAUSE

(I got kavun (sweetmeats) made by Padma.)

The underlined phrases are all agentive adverbials of the same type as sunilTə kiyəlaa (by Sunil). They all contain perfective verb forms, daalaa (having put), yodəvelaa (having employed), diilaa (having given), and baarediilaa (having entrusted). They also contain noun phrases. In some cases, these noun phrases appear with the accusative suffix və, and in others with the Tə suffix that appears in sunilTə kiyəlaa. The fact that both the accusative suffix and Tə

appear with such noun phrases seems to indicate that these are regular case affixes. The variety of perfective forms that appear indicates that these and kiyelaa are not postpositions, but real perfective forms. Hence the agentive adverbials in deep structures like (10) must be treated as adverbials containing perfective verb forms, rather than as examples of NP + Postposition.

In addition, sentences like (16) demonstrate that recursion is possible within such adverbials.

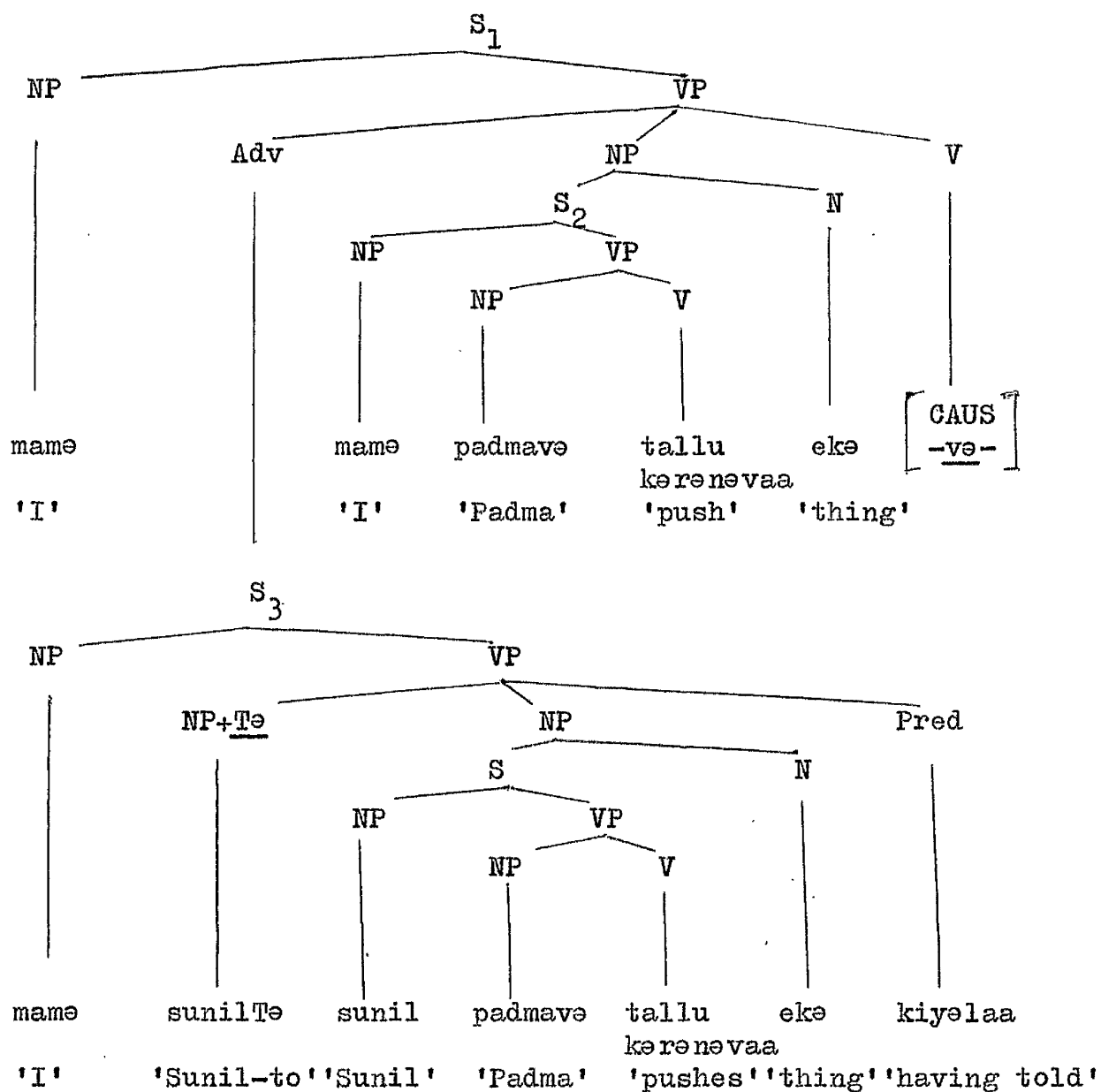
- (16) mame sunilTə kiyelaa laməyaTə kiyelaa
 'I' 'Sunil-to' 'having told' 'the child-to' 'having told'
 malliTə kiyelaa padmavə tallukərevenəvaa
 'Malli-to' 'having told' 'Padma' 'push' CAUSE

(I get Padma pushed by asking Sunil to tell the child to tell Malli (younger brother) to do it.)

The possibility of recursion suggests that such adverbials must contain embedded sentences.

In Chapter 10, I discuss both perfective verb forms and agentive adverbials like the above in some detail, and suggest that the underlying structure of (10) might in fact, look something like (17). In this case, the nearest noun phrase in S_1 to the subject NP of S_2 is no longer sunil but mame (I). Thus (17) will meet the structural description of Equi-NP Deletion only when the subject NP of S_2 is mame (I). The discussion in Chapter 10 also reveals that the deep structures of sentences like (2c), which contain agentive adverbials, are more complex than appears at first sight.

(17)



The subject of the embedded sentence in (8) is not identical with the subject of the matrix sentence. Consequently the corresponding surface structure (2b) indicates that I cause the action, but am not the doer of the action. This notion of indirect causation seems central to causative verbs. In an underlying structure like (10), the subject NPs of the embedded and matrix sentences are identical. Consequently, unless an agentive adverbial with a different noun

phrase is present in the matrix sentence, the sentence will indicate that I cause the action and am also the doer of the action. This seems to provide an explanation for why causative sentences like (4b) and (5b) must contain obligatory agentive adverbials, while such constituents are optional in the b and c sentences of (2) and (3).

Thus, postulating that causative sentences are derived from complex underlying structures requires setting up an abstract causative verb. Apart from this, no rules other than those which are independently motivated are /required to derive causative constructions from the complex underlying structures suggested. Such an analysis takes note of consistent phonological and semantic relationships between Class 1 and causative verbs. It provides an explanation for why agentive adverbials must appear obligatorily in some causative sentences, but only optionally in others. It also explains certain properties of sentences like (18).

- (18) sunil malliTe kiyelaa padmave tallukerevenevaa eet
 'Sunil' 'by Malli' 'Padma' 'push' CAUSE 'but'
 eyaame kavadaavat eheme keranne naehae
 'he himself' 'ever' 'it' 'does' NEG

(Sunil gets Malli (younger brother) to push Padma, but he never does so himself.)

In both Chapter 2 (p. 95) and Chapter 6 (pp. 197-198) it was noted that monevaa kerevevaade (is doing what) was a form used to question verb phrases with activity verbs, and that monevaa venevaade (what is happening) was the corresponding form used to question verb phrases with involitive verbs. Similarly, eeke kerenevaa (do it) and eheme kerenevaa (do so) occur frequently as pro-forms for

verb phrases with activity verbs. The corresponding forms for verb phrases with involitive verbs are eeke venevaa (it happens) and eheme venevaa (it happens thus). In (20) eheme keranne (do so - Incomplete) substitutes for the repeated verb phrase in (19).

- (19) sunil padmave tallukerevenvaa eet mame padmave
 'Sunil' 'Padma' 'pushes' 'but' 'I' 'Padma'
 tallukeranne næ hæ
 'push' NEG

(Sunil pushes Padma, but I don't push her.)

- (20) sunil padmave tallukerevenvaa eet mame eheme keranne næ hæ
 'Sunil' 'Padma' 'pushes' 'but' 'I' 'do so' NEG

(Sunil pushes Padma, but I don't do so.)

Now, (18) contains an instance of the pro-form eheme keranne (do so -Incomplete). The only other verb phrase present in surface structure is padmave tallukerevenvaa (get Padma pushed). If the pro-form refers to this verb phrase, then (18) must be derived from an underlying structure like (21).

- (21) *sunil malliTe kiyelaa padmave tallukerevenvaa eet
 'Sunil' 'by Malli' 'Padma' 'push' CAUSE 'but'
 eyaame kavadaavat padmave tallukerevanne næ hæ
 'he himself' 'ever' 'Padma' 'push' CAUSE NEG

(*Sunil gets Padma pushed by Malli (younger brother) but he himself never gets Padma pushed.)

However (21) is ungrammatical, as is predictable from the fact that sentences like (7) are ungrammatical, except under a different reading. (18) is instead understood to be derived from a sentence like (22). In this case, the verb phrase padmave tallukeranne (pushes Padma - Incomplete) must be repeated elsewhere in

(22) if eheme kēranne (do so - Incomplete) is to be permitted to replace it in (18).

(22) sunil malliṭe kiyēlaa padmave tallukēreṇevāa eet
 'Sunil' 'by Malli' 'Padma' 'push' CAUSE 'but'
 eyaame kavēdaavat padmave tallukēranne nē hae
 'he himself' 'ever' 'Padma' 'pushes' NEG

(Sunil gets Malli (younger brother) to push Padma, but he never pushes Padma himself.)

If causative sentences are analysed as being derived from complex underlying structures, then the first conjunct in (22) will have an underlying structure like (10). The embedded sentence in this underlying structure has a verb phrase padmave tallukēreṇevāa (pushes Padma). In this case padmave tallu kēre (push Padma) occurs in both conjuncts, and hence the pro-form eheme kēre (do so) may replace it in the second conjunct in (22). Thus, postulating complex underlying structures for causative sentences provides an explanation for the presence of the pro-form eheme kēre (do so) in (18).

In the discussion of involitive sentences and causative sentences, I have shown that deriving such constructions from complex underlying structures takes note of systematic phonological and semantic relationships between different pairs of verb forms in Sinhalese. I have also claimed that such analyses provide some explanation of facts in the grammar that would otherwise have been difficult to account for. On these grounds, I have set up two abstract verbs [INVOL] and $\left[\begin{array}{c} \text{CAUS} \\ \text{-ve-} \end{array} \right]$, which appear as main verbs in involitive and

causative sentences respectively. I have also set up a special transformational rule of Verb Raising, and imposed additional conditions on the rule of eke Deletion, and Unspecified NP Deletion. Throughout the discussion in both Chapter 6 and Chapter 7, Class 1 forms have been considered as base forms.

Lakoff suggests that English sentences like 'John thickened the sauce' be derived from a complex underlying structure containing a causative pro-verb, and an object complement with an embedded sentence 'The sauce thickened'.² Extending such an analysis to Sinhalese would involve claiming that sentences with Class 1 forms are derived from underlying structures with an abstract causative verb and embedded sentences with involitive verbs.

Is it possible to set up involitive verbs as base forms, and postulate that Class 1 forms and causative forms are derived from them, in that order, by two consecutive processes of Causativisation? This would suggest that (23)-(25) form a hierarchy with respect to Causativisation.

- (23) padma(və) tallu venəvaa
'Padma' 'pushing happens'

(Padma gets pushed.)

- (24) sunil padmave tallukerənevaa
'Sunil' 'Padma' 'pushes'

(Sunil pushes Padma.)

2. G. Lakoff (1970), Ch. 5 p. 43.

- (25) mame sunilTə kiyəlaa padmave tallukəreɐnəvaa
 'I' 'by Sunil' 'Padma' 'push' CAUSE

(I get Sunil to push Padma.)

There are several reasons why such a claim cannot be made for Sinhalese. Firstly, it has been noted that given any Class 1 verb in Sinhalese, it is possible to determine uniquely the corresponding involitive and causative forms. It was also seen that it is not possible, given an involitive form, to determine uniquely the corresponding Class 1 form. Hence suggesting that involitive forms are base forms would involve serious consequences for the phonological component.

Secondly, Chapter 6 outlined some problems that arise if involitive sentences are to be treated as simple sentences. These problems remain if involitive forms are to be considered base forms.

Thirdly, consider the semantic difference between sentences like (26) and (27).

- (26) padma aɪDənəvaa
 'Padma' 'is crying'

(Padma is crying.)

- (27) padmaTə æɪDənəvaa
 'Padma-to' 'crying happens'

(Padma can't help crying, cries involitively.)

In Chapter 6 such sentences were discussed in detail, and it was pointed out that a feature of volition differentiated the pair. It is not clear how the difference between such pairs can be accounted for by a feature of causation.

Fourthly, even if sentences like (23) and (24) are said to be differentiated by a feature of causation, this feature must be rather different to the one which characterises the indirect causation which was said to be central to causative verbs in Sinhalese. In (24), even if Sunil can be said to 'cause' Padma to be pushed, he is also the doer of the action. It was noted that a very different situation exists in the case of sentences like (25) and other sentences which have been defined as causatives in this chapter.

It is also worth noting that Class 1 forms were shown to include both transitive and intransitive forms. On the other hand, involitive verbs are all intransitive, and causative verbs are all transitive. Postulating that Class 1 forms are base forms takes note of the transitive-intransitive distinction in the language.

Hence, there seems reason to claim that Class 1 forms are base forms which appear in simple sentences generated by the phrase structure rules. Chapter 2 discusses the derivation of such simple sentences, and demonstrates that the phrase structure rules formulated there are capable of generating them. I have now postulated two abstract verbs, and suggested that involitive and causative constructions in Sinhalese are derived from complex underlying structures in which these appear as main verbs. An additional rule of Verb Raising is required for such derivations. It is also necessary to constrain ekə Deletion and Unspecified NP Deletion to apply obligatorily in complement constructions when the main verb of the matrix sentence is an abstract verb.

CHAPTER 8

PSEUDO-CLEFT SENTENCES AND EMPHATIC ASSERTION AND NEGATION

Any sentence in Sinhalese may have corresponding to it a parallel sentence of emphatic assertion or negation. (1) is a simple sentence of the type discussed in Chapter 2. (2) is an emphatic assertion corresponding to it. Similarly, (3) emphatically negates it.

- (1) padma aṁDənevaa
'Padma' 'is crying'

(Padma is crying.)

- (2) padma aṁDənevaa tamayi
'Padma' 'is crying' EMPH

(It is definitely the case that Padma is crying.)

- (3) padma aṁDənevaa nevee
'Padma' 'is crying' NEG

(It is not the case that Padma is crying.)

(3), in which the negative particle nevee occurs, can be compared with (4).

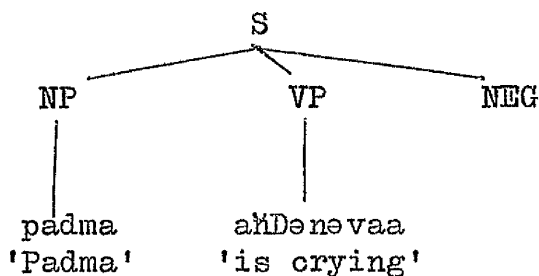
- (4) padma aṁDanne næ hæ
'Padma' 'is crying' NEG

(Padma is not crying.)

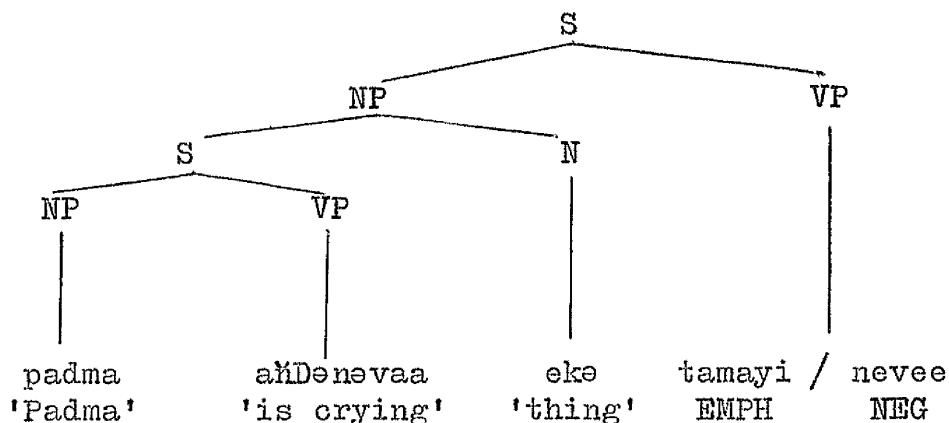
By the formulation of Neg Placement given in Chapter 2 (p. 91 (139)), (4) is the regular negative sentence corresponding to (1). In (4) the main verb appears in its Incomplete form as aṁDanne, and the negative particle næ hæ, which occurs with main verbs and

non-nominal predicates, is present. In (3) the main verb añDənevaa is in its finite form, and nevee, the negative particle which appears with nominal predicates, is present. In addition, (3) and (4) are semantically distinct, as the free translations indicate. This suggests that (3) is not derived by the usual rule of Neg Placement from a deep structure in which a sentence like (1) occurs with the element 'Neg', but is instead a negative sentence parallel to a sentence like (2). Since (5) cannot be considered a possible deep structure for (3), (6) suggests itself as the underlying structure of both (2) and (3).

(5)



(6)



In (6), the negative particle nevee occurs as the sole constituent of the verb phrase. In Chapter 2 we noted that nevee occurs

only with nominal predicates, and that næ hæ occurs in all other cases. The negative counterpart of (7), in which siitələ (cold) is analysed as subject NP, is (8), and not (9).

- (7) siitələ yi
'cold' 'is'

(It is cold.)

- (8) siitələ næ hæ
'cold' NEG

(It is not cold.)

- (9) *siitələ nevee
'cold' NEG

Hence the usual rules seem to predict that næ hæ and not nevee should occur in (6).

Now consider the grammatical pair of sentences (10) and (11). In these the emphatic particle tamayi, and nevee appear as predicates. A corresponding sentence like (12) exists in which næ hæ occurs. This sentence however is understood as the negative counterpart of (13) rather than (10), and can be derived quite regularly by Neg Placement.

- (10) eekə tamayi
'it' EMPH

(It is so.)

- (11) eekə nevee
'it' NEG

(It is not so.)

- (12) eekə næ hæ
'it' NEG

(It is not there.)

- (13) eekə tiyenəvaa
'it' 'is'

(It is there.)

The grammaticality of (10) and (11) indicate that tamayi and nevee may appear in predicate position when the subject NP is $\left[\begin{smallmatrix} +\text{Pro} \\ +\text{Abstract} \end{smallmatrix} \right]$. In this case the appearance of nevee in (6) is regular and (6) may therefore be posited as the deep structure of (2) and (3).

Now although (9) is ungrammatical, (14) and (15) are not.

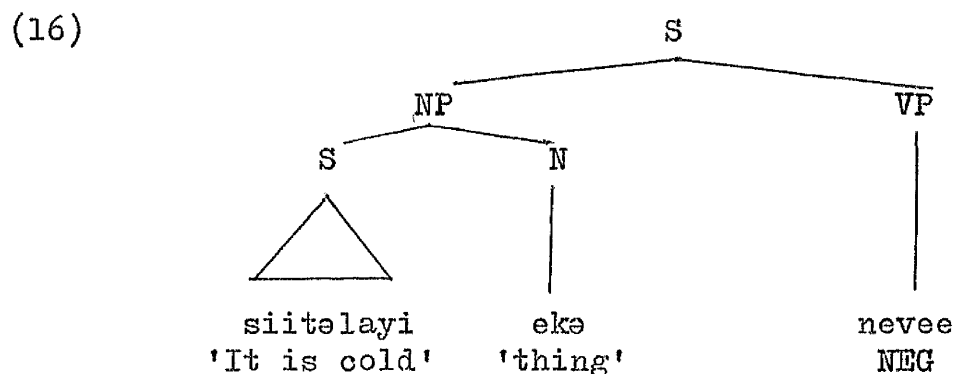
- (14) siitələ yi nevee
'cold' 'is' NEG

(It is not the case that it is cold.)

- (15) siitələ naəhəe nevee
'cold' NEG NEG

(It is not the case that it is not cold.)

If deep structures like (6) are set up for sentences of emphatic assertion and negation, then just these surface structures can be derived by the usual rules. (16) would be the underlying structure of (14).



eekə Deletion would need to apply obligatorily to complex configurations in which tamayi and nevee occur as predicates. A

surface structure like (14) can be then derived. The process of derivation is therefore the same as that of any vaa complement.

As (15) illustrates, negative sentences may occur as the embedded sentence in such deep structures. However where the embedded sentence itself contains the negative particle nevee, the resulting surface structures are somewhat awkward, as in (17).¹

(17) ?sunil horek nevee nevee
'Sunil' 'a thief' NEG NEG

(It is not the case that Sunil is not a thief.)

In Chapter 2 (p. 88 (124)) a case was noted in which a sentence generated by the rules was ungrammatical. (17) can be derived by the usual rules, but is awkward. In both (17), and the case in Chapter 2, two identical items are juxtaposed. In (17) this item is nevee. If, as is suggested in Chapter 2, there exists some rule pertaining to performance in Sinhalese that blocks such cases, the awkwardness of (17) as opposed to the acceptability of (15) can be explained.

Sentences like (18) and (19), in which emphatic tamayi and nevee both appear, are possible when they are used as echo statements, to deny or assert emphatically another emphatic statement that has just been made. However, recursive embedding in such emphatic

1. In my dialect (17) is decidedly awkward. The assessment of other native speakers varies from 'ungrammatical' to 'rather awkward'. To one speaker the sentence was acceptable when the second nevee was read with heavy stress.

constructions is not permissible to any further degree. (20) and (21) demonstrate that recursive embedding is not possible at all where the predicates of the embedded and matrix sentences are both either tamayi or nevee.²

- (18) padma aMDenevaa tamayi nevee
'Padma' 'is crying' EMPH NEG

(It's not 'Padma is definitely crying'.)

- (19) padma aMDenevaa nevee tamayi
'Padma' 'is crying' NEG EMPH

(It definitely is 'It's not so that Padma is crying'.)

- (20) *padma aMDenevaa tamayi tamayi
'Padma is crying' EMPH EMPH

- (21) *padma aMDenevaa nevee nevee
'Padma is crying' NEG NEG

Now, corresponding to any sentence in Sinhalese there also exists a set of parallel 'Pseudo-Cleft' sentences. (23)-(25) are the pseudo-cleft sentences corresponding to (22).

- (22) padma kaameree bat kaneevaa
'Padma' 'the room-in' 'rice' 'is eating'

(Padma is eating her rice in the room.)

- (23) kaameree bat kanne padma yi
'the room-in' 'rice' 'is eating' 'Padma-is'

(It is Padma who is eating her rice in the room.)

2. Again, one speaker I consulted felt that (20) and (21) too were acceptable when the second tamayi or nevee was read with heavy stress.

- (24) padma kaameree kane bat (uyi)
'Padma' 'the room-in' 'is eating' 'rice-is'

(It is rice that Padma is eating in the room.)

- (25) padma bat kane kaameree (yi)
'Padma' 'rice' 'is eating' 'the room-in-is'

(It is in the room that Padma eats her rice.)

Though Sinhalese sentences of this type are referred to here as pseudo-clefts, the properties they exhibit are not identical to those of either pseudo-cleft or cleft sentences in English.³ However the term is used on the basis of certain similarities between the relevant English and Sinhalese sentence types. Akmajian, in his discussion of the similarities between these two types of sentences in English, uses the term 'focus' to refer to a constituent in both which bears the heaviest stress, and is clearly being focussed upon, or being made prominent. This constituent appears in both types of sentences in immediately post-copular position. In (23)-(25), padma, bat (rice), and kaameree (in the room) respectively are in a sense constituents which are being focussed upon, and they appear in predicate position with the yi Copula. Akmajian also refers to 'the clause' in such sentences, using the term to refer to the initial reduced relative clauses in pseudo-cleft sentences, and the clause immediately following the focus in cleft sentences. In (23)-(25), the underlined portions act in some sense as units. The fact that

3. See Akmajian (1970) for a discussion of the properties of pseudo-cleft and cleft sentences in English.

- (29) padma bat kanne yi nidaaganne yi mee kaameree (yi)
 'Padma' 'rice' 'eats' 'and' 'sleeps' 'and' 'this room-in-is'

(It is in this room that Padma eats her rice and sleeps.)

Sentences like (23) and (24) are rather similar in meaning to (30) and (31) respectively.

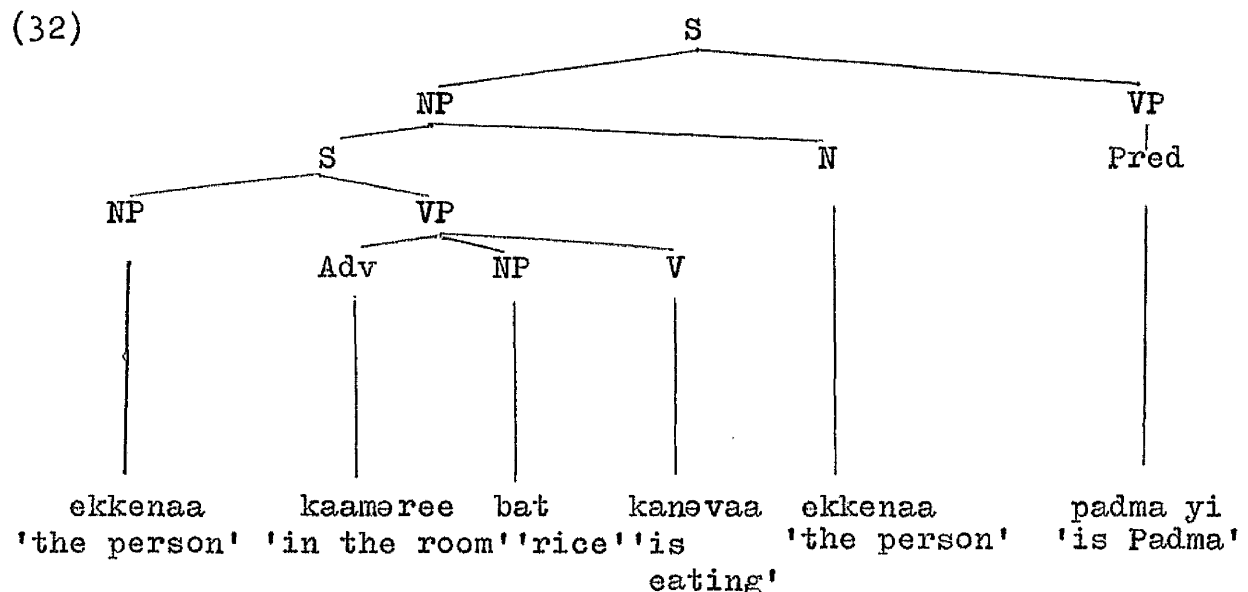
- (30) kaameree bat kanē ekkenaa padma yi
 'the room-in' 'rice' 'eating' 'the person' 'Padma-is'

(The person who is eating her rice in the room is Padma.)

- (31) padma kaameree kanē dee bat (uyi)
 'Padma' 'the room-in' 'eating' 'the thing' 'rice-is'

(The thing that Padma is eating in the room is her rice.)

A sentence like (30) is derived by the usual processes of relativisation from a deep structure like (32).



The similarity in meaning might suggest that (23) too is derived from a similar underlying structure. However, the sentence

parallel to (25) which contains a relative phrase is (33). Unlike the pairs (23) and (30), and (24) and (31), (25) and (33) differ somewhat in meaning. (33) has the meaning that a certain place is located in the room, not that Padma is located in a certain place. Akmajian notes similar facts in the case of the English sentences 'It was in the garden that I found John' and 'The place where I found John was in the garden'.⁴

(33) padma bat kanə taenə kaaməree (yi)
 'Padma' 'rice' 'eating' 'the place' 'the room-in-is'

(The place where Padma eats her rice is in the room.)

When more data is considered, more problems arise in assigning complex underlying structures like (32) to pseudo-cleft sentences in Sinhalese.

The b sentences in (34)-(36) are pseudo-clefts corresponding to the simple a sentences. The c and d sentences correspond to the b sentences, and contain relative phrases.

(34) a padma sunilvə dækkə
 'Padma' 'Sunil' 'saw'

(Padma saw Sunil.)

b padma dække sunilvə (yi)
 'Padma' 'saw' 'Sunil'ACC'is

(It is Sunil who Padma saw.)

c padma dække ekkenaa sunil
 'Padma' 'saw' 'the person' 'Sunil-is'

(The person who Padma saw is Sunil.)

4. Akmajian (1970), pp. 161 and 162.

- d *padma daekke ekkenaa sunilve
'Padma' 'saw' 'the person' 'Sunil' ACC 'is'
- (35) a padma tarahaTe aMDenevaa
'Padma' 'anger-for' 'is crying'
(Padma is crying out of anger.)
- b padma aMDanne tarahaTe (yi)
'Padma' 'is crying' 'anger-for-is'
(It is out of anger that Padma is crying.)
- c *padma aMDene kaarenee taraha (yi)
'Padma' 'crying' 'reason' 'anger-is'
(?The reason for which Padma is crying is anger.)
- d *padma aMDene kaarenee tarahaTe (yi)
'Padma' 'crying' 'reason' 'anger-for-is'
(?The reason for which Padma is crying is out of anger.)
- (36) a padma atin bat kanevaa
'Padma' 'hand-with' 'rice' 'eats'
(Padma eats her rice with her fingers.)
- b padma bat kanne atin (uyi)
'Padma' 'rice' 'eats' 'hand-with-is'
(It is with her fingers that Padma eats her rice.)
- c *padma bat kanē eke ate (yi)
'Padma' 'rice' 'eating' 'thing' 'hand-is'
(*The thing with which Padma eats her rice is her fingers.)
- d *padma bat kanē eke atin
'Padma' 'rice' 'eating' 'thing' 'fingers-with'
(*The thing with which Padma eats her rice is with her fingers.)

In (34b), the noun phrase in focus position is marked with the accusative suffix ve. The Number and Case Agreement rule in

Chapter 2 (p. 60 (35)) specified that nominal predicates be marked nominative. Hence, though sunilve appears with the yi Copula in predicate position, it does not behave like a nominal predicate. On the other hand sunil in (34c) is clearly a nominal predicate, and d demonstrates that it cannot occur in such constructions with the accusative ve suffix. Hence (34) b and c clearly differ in underlying structure. Similar facts are true for (35) and (36). There are no grammatical sentences with relative phrases corresponding to (35b) and (36b), in which a Te NP and an en NP respectively appear in predicate position. The ungrammaticality of (35c) and (36c) can be explained by the constraints operating on relativisation when the shared noun phrase in the embedded sentence is not subject or object NP. The fact that the pseudo-cleft sentences corresponding to these are grammatical shows that the b and c sentences cannot share a similar underlying structure.

It was also noted in Chapter 2 that predicate position allows only either nominative noun phrases, or adjectives, or certain manner adverbials and adverbials of time and location. The b sentences in (34)-(36) illustrate that a variety of other types of noun phrases appear in focus position in the pseudo-cleft sentences. Therefore, unless the phrase structure rules are reformulated, it is difficult to consider the focus in these sentences as the predicate, or the remaining part of the sentence as the subject NP.

Pseudo-cleft sentences not only allow constituents other than those that usually appear in predicate position to appear in

focus position, they also disallow adjectives, which usually appear as predicates, to appear as focus. Thus there is no grammatical pseudo-cleft sentence (38) corresponding to (37).

- (37) padma poDi lamøyekvø dæ kkaa
 'Padma' 'small' 'a child' 'saw'

(Padma saw a small child.)

- (38) *padma lamøyekvø dæ kke poDiyi
 'Padma' 'a child' 'saw' 'small-is'

(*It is small that Padma saw a child.)

Hence, pseudo-cleft sentences are distinguished by the following features. Any major constituent of a sentence other than the main verb or predicate appears in focus position with the yi Copula, where 'major constituent' refers to any constituent immediately dominated by the S or the VP node. This position therefore accommodates some constituents that do not usually appear in predicate position, but disallows adjectives, which usually appear in predicate position. The remaining part of a pseudo-cleft sentence behaves as a unit, and exhibits the internal structure of a sentence, except for the fact that the main verb or predicate appears in its Incomplete form, e.g. kanne (is eating-Incomplete) in (23), and some constituent present in a sentence is missing in it, e.g. the subject NP in (23), the object NP in (24) etc. The constituent that appears in focus position in such sentences is of the same category as this missing constituent. In (23), a subject NP is missing in the underlined portion, and a NP marked with the nominative case suffix appears in

focus position. The clause of the pseudo-cleft sentence also differs in structure quite obviously from a relative phrase.

These facts suggest that such sentences are not derived from complex underlying structures, but rather from simple sentences by some kind of extraction transformation like (39).

(39) Pseudo-Cleft

$$\begin{array}{lcl}
 \text{SD :} & [\text{X} - \text{Y} - \text{X} - \left\{ \begin{array}{c} \text{V} \\ \text{Pred} \end{array} \right\}]_S & \Rightarrow \text{OPT} \\
 & \begin{array}{cccc} 1 & 2 & 3 & 4 \end{array} & \\
 \text{SC :} & 1 & 0 & 3 \quad \left[4_{\text{Incomplete}} \right] \quad 2+\underline{\text{yi}}
 \end{array}$$

Condition : Y is a major constituent

A transformation of this sort will affect the meaning of a sentence in some way. It does not affect the truth-value of a sentence, nor the grammatical relations represented in deep structure, but it does affect both the focus and presuppositions of the sentence. In Chapter 1 (p. 19), I refer to a proposed revision of Standard Theory by Chomsky. Chomsky (1969) discusses a class of cases in which it appears necessary to postulate rules of semantic interpretation that make use of information not represented in deep structure, and suggests this modified Standard Theory to accommodate these facts. In pseudo-cleft sentences in Sinhalese, the surface structures resulting from a transformation like (39), and not the relevant deep structures determine the focus of the sentence. Thus such sentences are examples that cannot be handled by Standard Theory, and necessitate

a modified theory of the sort proposed in Chomsky (1969).

The Pseudo-Cleft transformation may apply to negative sentences. In (40), it may derive the b and c sentences from the simple sentence in a. It may also apply to question sentences. In this case, the question particle də, and not the yi Copula, is attached to the constituent which is moved into focus position. The b sentence in (41) is derived thus from the a sentence.

(40) a padma bat kanne næhæ
 'Padma' 'rice' 'is eating' NEG

(Padma is not eating her rice.)

b bat kanne nætte padmayi
 'rice' 'is eating' NEG 'Padma-is'

(It is Padma who is not eating her rice.)

c padma kanne nætte bat (uyi)
 'Padma' 'is eating' NEG 'rice-is'

(It is her rice that Padma is not eating.)

(41) a kavuru bat kanəvāa də
 'who' 'rice' 'is eating' Q

(Who is eating rice?)

b bat kanne kavu(ru) də
 'rice' 'is eating' 'who' Q

(Who is it who is eating rice?)

Emphatic Assertion as discussed earlier may also apply to pseudo-cleft sentences. Hence, corresponding to the pseudo-cleft sentence in (23), there is an emphatic sentence like (42). (43) however is a regular negative sentence in which nevee appears with

a nominal predicate.

- (42) kaaməree bat kanne padma tamayi
'in the room' 'rice' 'is eating' 'Padma' EMPH

(It is definitely Padma who is eating her rice in the room.)

- (43) kaaməree bat kanne padma nevee
'in the room' 'rice' 'is eating' 'Padma' NEG

(It is not Padma who is eating her rice in the room.)

In general, the negative particle nevee appears in all negative pseudo-cleft sentences. (44)-(46) illustrate this. This raises difficulties since adverbial predicates like kaaməree (in the room) usually occur with the negative particle næ hæ and not nevee. Again, this indicates that constituents in focus position in pseudo-cleft sentences behave differently to those in predicate position in simple sentences. The consistent occurrence of nevee in such sentences, and the fact that there are no sentences of emphatic negation with pseudo-cleft sentences, seem to suggest that (43)-(46) are in fact not derived by the usual rules of negation, but from complex underlying structures like (6).

- (44) padma dække sunilvə nevee
'Padma' 'saw' 'Sunil'ACC NEG

(It was not Sunil that Padma saw.)

- (45) padma aṁDanne tarahaTə nevee
'Padma' 'is crying' 'anger-for' NEG

(It is not out of anger that Padma is crying.)

- (46) padma bat kanne kaaməree nevee
'Padma' 'rice' 'eats' 'in the room' NEG

(It is not in the room that Padma eats her rice.)

The rule of Neg Placement as specified in Chapter 2 (p. 91 (139)) stipulates that the negative particle be attached to the main verb or the predicate of the sentence. If the analysis of pseudo-cleft sentences given above is correct, then the main verb or predicate of the deep structure is part of the clause of the pseudo-cleft sentence, and another constituent, which is being focussed upon, appears with the yi Copula. This provides a reason for why the negative particle can no longer be freely attached to the main verb or predicate, and hence, why Neg Placement cannot apply to pseudo-cleft sentences.

Pseudo-cleft sentences may occur as conjuncts of conjoined sentences as in (26), discussed earlier. As noted in (27) however, Conjunction Reduction cannot apply freely in such cases. Relativisation may not apply when the embedded sentence is a pseudo-cleft sentence. (47) illustrates this. Its ungrammaticality is explained by the fact that the shared noun phrase bat (rice) is no longer a constituent in the pseudo-cleft sentence, but only a constituent of the clause, in this case bat kanne (is eating rice).

- (47) *kanne padmayi bat
 'is eating' 'Padma-is' 'rice'

(*the rice which it is Padma who is eating)

Pseudo-cleft sentences may occur only in some complement constructions. (48)-(52) illustrate the characteristic distribution. Predictably, this distribution is the same as for other sentences

with non-verbal predicates.

- (48) *aŋDanne padma ekə sunil dæ kkaa
'is crying' 'Padma' 'thing' 'Sunil' 'saw'

(Sunil saw that it was Padma who was crying.)

- (49) *aNDanne padmayi sunil dæ kkae
'is crying' 'Padma-is' 'Sunil' 'saw'

(Sunil saw that it was Padma who was crying.)

- (50) aDanne padma bave sunil dæ kkaa
'is crying' 'Padma' 'fact' 'Sunil' 'saw'

(Sunil saw that it was Padma who was crying.)

- (51) aḥḍanne padmayi kiyeṇevaa
'is crying' 'Padma-is' 'say'

(It is said that it is Padma who is crying.)

- (52) añDanne padmayi { kiyəne eke } sunil də kkaa
 [kiyələa]
'is crying' 'Padma-is' 'Sunil' 'saw'

(Sunil saw that it was Padma who was crying.)

CHAPTER 9

CONJOINING PROCESSES

In discussing conjoining processes in Sinhalese, I will in general, accept the description of conjunction given in Chomsky (1957).

"If S_1 and S_2 are grammatical sentences, and S_1 differs from S_2 only in that X appears in S_1 where Y appears in S_2 (i.e. $S_1 = \dots X \dots$ and $S_2 = \dots Y \dots$), and X and Y are constituents of the same type in S_1 and S_2 , respectively, then S_3 is a sentence, where S_3 is the result of replacing X by $X + \text{and} + Y$ in S_1 (i.e. $S_3 = \dots X + \text{and} + Y \dots$)".¹

Gleitman (1965) points out that the ' X ' and ' Y ' referred to above, which are constituents of the same type in S_1 and S_2 , and by which alone S_1 differs from S_2 , may in fact be S_1 and S_2 themselves.

"It is ordinarily assumed that all sentences described by a generative grammar share the initial symbol S ; thus every two sentences of English have in common at least one phrase structure representation. Assuming further that identical common strings are the necessary condition for conjunction, we could suppose that all English sentences are conjoinable by virtue of the shared string S . These assumptions are, in general, borne out by informant responses, even to rather pointless conjoined sentences like this one:

(11) I wrote my grandmother a letter yesterday and six men
can fit in the back seat of a Ford." ²

I assume here that this is true for Sinhalese too, and that

1. N. Chomsky (1957), Ch. 5 p. 36.

2. L.R. Gleitman (1965), p. 262.

all Sinhalese sentences are conjoinable. A view like that put forward in R. Lakoff (1971), that any two sentences are not freely conjoinable unless they share a 'common topic', runs contrary to this assumption.

"Two sentences may be conjoined if one is relevant to the other, or if they share a common topic. . . . the common topic is not necessarily, or even usually, overtly present and identifiable in the sentences . . . " ³

In Sinhalese, a sentence like (1), in which there appears to be very little connection between the two conjuncts, is an unusual sentence, but it is possible to envisage several contexts in which it would be perfectly acceptable.

- (1) padma bat kanēvaa yi 1505 di prutugiisikaareyoo
 'Padma' 'rice' 'is eating' 'and' 'in 1505' 'the Portuguese'
 lankaaveTə aavaa yi
 'Ceylon-to' 'came' 'and'

(Padma is eating her rice and the Portuguese came to Ceylon in 1505.)

I therefore claim here that such sentences are grammatical. Their unusualness in some contexts can be explained with respect to the 'Cooperative Principle' which H.P. Grice (1967) suggests must govern conversation. Grice outlines sets of maxims, which if observed in a talk-exchange, will yield results in accordance with the Cooperative Principle.⁴ The unusualness of a sentence like (1) can

3. R. Lakoff (1971), p. 118.

4. H.P. Grice (1967), Lecture II pp. 7 and 8.

then be shown, under certain circumstances, to be the result of non-observance of a maxim like 'Be relevant'.

Exceptions to the assumption that all sentences are freely conjoinable in Sinhalese arise in some cases where identical sentences are conjoined. Such cases are discussed later.

This chapter considers mainly those conjoined structures in which common constituents are present in the conjuncts. It also concentrates largely on the coordinating conjunction yi (and). yi appears typically in sentences like (2)-(5).

- (2) padma aṁḍeṇevaa yi sunil hinaavenevaa yi
'Padma' 'is crying' 'and' 'Sunil' 'is laughing' 'and'

(Padma is crying and Sunil is laughing.)

- (3) padma aṁḍeṇevaa yi bat kanēvaa yi
'Padma' 'is crying' 'and' 'rice' 'is eating' 'and'

(Padma is crying and eating her rice.)

- (4) padma bat uyi maalu yi kanēvaa
'Padma' 'rice' 'and' 'fish' 'and' 'is eating'

(Padma is eating rice and fish.)

- (5) padma yi sunil uyi bat kanēvaa
'Padma' 'and' 'Sunil' 'and' 'rice' 'are eating'

(Padma and Sunil are eating their rice.)

Although the conjoining particle yi is identical in form to the yi Copula, it is clear from the following examples that it is not the same particle. In (6) both the copula and the conjoining particle appear. In the synonymous (7), the conjoining particle is optionally

omitted in surface structure after the yi Copula. In (8) a and b the yi Copula is not overtly present in surface structure. In the corresponding conjoined sentence (9), the conjoining particle must obligatorily be present.

- (6) padma suduyi uyi sunil usayi uyi
'Padma' 'fair-is''and' 'Sunil' 'tall-is''and'

(Padma is fair and Sunil is tall.)

- (7) padma suduyi sunil usayi
'Padma' 'fair-is''and' 'Sunil' 'tall-is''and'

(Padma is fair and Sunil is tall.)

- (8) a padma kammæ liyek
'Padma' 'a lazybones-is'

(Padma is a lazybones.)

- b sunil horek
'Sunil' 'a thief-is'

(Sunil is a thief.)

- (9) padma kammæ liyek uyi sunil horek uyi
'Padma' 'a lazybones-is''and' 'Sunil' 'a thief-is''and'

(Padma is a lazybones and Sunil is a thief.)

In the pseudo-cleft sentence (10), the yi Copula is attached to the subject NP which is in focus position, and the main verb in the clause appears in its Incomplete form as kanne (is eating-Incomplete). In (5) too, yi is attached to the subject NPs, but in this case the main verb appears in its finite form kanevaa (is eating). Hence the sentence cannot be interpreted as a pseudo-cleft construction, and the yi attached to the subject NPs must be the conjoining particle. (11) shows that in the pseudo-cleft construction

corresponding to (5), the yi Copula may optionally be omitted after the coordinating conjunction. (It is in fact usual for it to be omitted.)

- (10) padmayi bat kanne
'Padma-is' 'rice' 'is eating'

(It is Padma who is eating rice.)

- (11) padmayi sunil uyi (uyi) bat kanne
'Padma''and' 'Sunil''and' 'is' 'rice' 'are eating'

(It is Padma and Sunil who are eating their rice.)

There are two other principal coordinating conjunctions in Sinhalese, eet (but) and (ekko)-hari (either-or).⁵ eet appears in sentences like (12) and (13).

- (12) padma aḥḍenevāa eet sunil hinaavenēvāa
'Padma' 'is crying' 'but' 'Sunil' 'is laughing'

(Padma is crying but Sunil is laughing.)

- (13) padma aḥḍenevāa eet bat kanēvāa
'Padma' 'is crying' 'but' 'rice' 'is eating'

(Padma is crying but eating her rice.)

-
5. There are other coordinating conjunctions which are not discussed here. One is t (also), which may be used in place of yi (and), with only a slight change in meaning, in sentences like the following:

- a padma aḥḍenevāa t bat kanēvāa t
'Padma' 'is crying' 'also' 'rice' 'is eating' 'also'

(Padma is crying and also eating her rice.)

Another is vat, which occurs only in negative sentences like the following:

- b padma vat sunil vat bat kanne nā hāe
'Padma' 'or' 'Sunil' 'or' 'rice' 'is eating' NEG

(Neither Padma nor Sunil is eating their rice.)

(ekko)-hari appears in sentences like (14)-(17). Though glossed above as 'either', ekko appears optionally with two or more conjuncts, and may be given more accurately as 'alternatively'.

(ekko)-naetnam often occurs interchangeably with (ekko)-hari, but only the latter is used in all examples below.

- (14) (ekko) padma aḥḍeṇəvaa hari sunil hinaavenəvaa hari
'either' 'Padma' 'cries' 'or' 'Sunil' 'laughs' 'or'

((Either) Padma cries or Sunil laughs.)

- (15) padma (ekko) aḥḍeṇəvaa hari bat kanəvaa hari
'Padma' 'either' 'cries' 'or' 'rice' 'eats' 'or'

(Padma (either) cries or eats her rice.)

- (16) padma (ekko) bat hari maalu hari kanəvaa
'Padma' 'either' 'rice' 'or' 'fish' 'or' 'eats'

(Padma eats (either) rice or fish.)

- (17) (ekko) padma hari sunil hari bat kanəvaa
'either' 'Padma' 'or' 'Sunil' 'or' 'rice' 'is eating'

((Either) Padma or Sunil is eating rice.)

eet (but) differs from yi (and) and (ekko)-hari (either-or) in several ways. It cannot conjoin constituents other than sentences and verb phrases. Hence (18) and (19) are ungrammatical. It cannot conjoin more than two constituents. Hence the ungrammaticality of (20). I will not deal with eet (but) here, nor will I formulate rules to account for sentences like (12) and (13), in which it appears.

- (18) *padma bat eet maalu kanəvaa
'Padma' 'rice' 'but' 'fish' 'is eating'

(*Padma is eating rice but fish.)

- (19) *padma eet sunil bat kanəvaa
 'Padma' 'but' 'Sunil' 'rice' 'is eating'

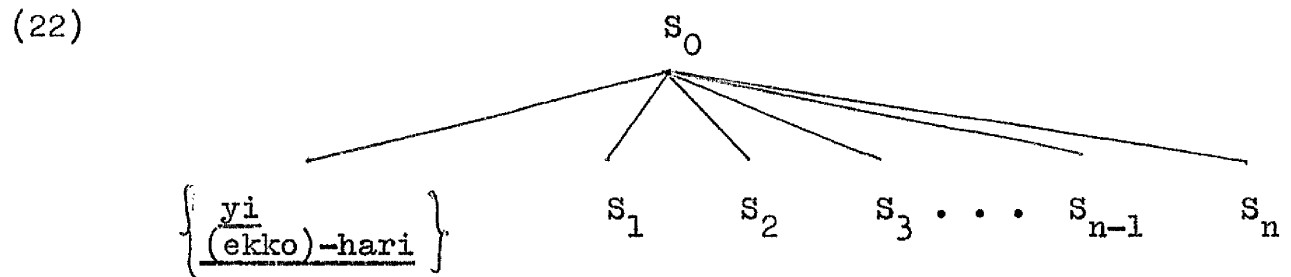
(*Padma but Sunil is eating rice.)

- (20) *padma aḥDənevaa eet hinaavenəvaa eet kahinəvaa
 'Padma' 'is crying' 'but' 'is laughing' 'but' 'is coughing'

(*Padma is crying but is laughing but is coughing.)

A phrase structure rule like (21) is needed to generate the deep structures of sentences like (2) and (14) with yi (and) and (ekko)-hari (either-or). Deep structure configurations like (22) will result.

- (21) $S \longrightarrow \left\{ \frac{yi}{(ekko)-hari} \right\} S^n, \quad n \geq 2$



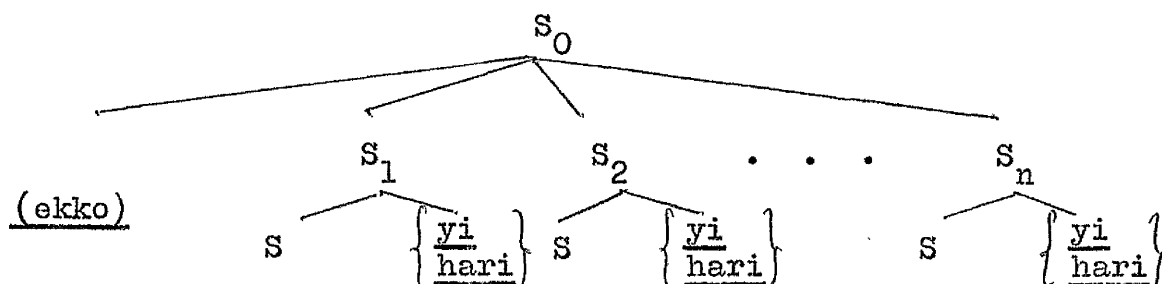
A further obligatory transformational rule like (23) is then needed, and will operate to derive intermediate structures like (24).

- (23) Conjunction Copying

$$SD : X - \left[\left\{ \frac{yi}{(ekko)-hari} \right\} - Y - Y^n \right]_Y - X \Rightarrow OBL$$

1	2	3	4	5	6	
SC :	1	2	0	4+3	5+3	6

(24)



The rules (21) and (23) account for sentences like (2) and (14). (21) is one of the phrase structure rules that allow for recursion, and hence theoretically an infinite number of conjuncts may occur in such conjoined structures. In (25), four conjuncts are conjoined with yi (and). Similar sentences occur with (ekko)-hari (alternatively-or).

- (25) padma aṁḍeṇevaa yi sunil hinaavenevaa yi amma
 'Padma' 'cries' 'and' 'Sunil' 'laughs' 'and' 'Amma'
 baninevaa yi mame balaagene innevaa yi
 'scolds' 'and' 'I' 'watch' 'and'

(Padma cries and Sunil laughs and Amma (mother) starts scolding them and I have to watch it all.)

Where a set of conjuncts have one or more constituents in common, it seems to be a property of conjoining processes in many languages that this shared constituent may optionally occur only once in surface structures, instead of being repeated in each conjunct. Conjunction Reduction and Gapping are the two principal rules that have been formulated in transformational literature to deal with such instances.

Within the framework of transformational grammar, two

underlying structures like (29), and that surface structures like (27) are derived by a transformational rule of Conjunction Reduction.⁶

- (29) padma iskooletə giyaa yi padma dæ n aŋDenəvaa
 'Padma' 'school-to' 'went' 'and' 'Padma' 'now' 'is crying'
 æ ti yi
 'is probable' 'and'

(Padma went to school, and she is probably crying now.)

A rule like (26) could account for the a sentences in (30)-(33), in which the conjoined noun phrases are understood as a unit rather than as two separate entities. That such sentences cannot be derived from underlying structures with conjoined sentences is seen from the ungrammaticality of the b sentences.

- (30) a padma yi sunil uyi prasne gæ nə saakaccaa kəlaa
 'Padma' 'and' 'Sunil' 'and' 'the question-about' 'discussed'

(Padma and Sunil discussed the question.)

- b *padma prasne gæ nə saakaccaa kəlaa
 'Padma' 'the question-about' 'discussed'

(*Padma discussed the question.)

- (31) a padma yi sunil uyi isTeesəmeedi munəgæ hunaa
 'Padma' 'and' 'Sunil' 'and' 'the station-at' 'met'

(Padma and Sunil met at the station.)

- b *padma isTeesəmeedi munəgæ hunaa
 'Padma' 'the station-at' 'met'

(*Padma met at the station.)

6. See R.C. Dougherty (1970) for arguments in favour of a different analysis of coordinate conjoined structures.

- (32) a sunil tel uyi vatura yi kavēlam keranne hadēnevaa
 'Sunil' 'oil' 'and' 'water' 'and' 'to mix' 'is trying'

(Sunil is trying to mix oil and water.)

- b *sunil tel kavēlam keranne hadēnevaa
 'Sunil' 'oil' 'to mix' 'is trying'

(*Sunil is trying to mix oil.)

- (33) a sunil uyi padma yi jaaDiyēTē muuDiye vagee
 'Sunil' 'and' 'Padma' 'and' 'the pot-to' 'the lid' 'are like'

(Sunil and Padma are made for each other.)

- b *padma jaaDiyēTē muuDiye vagee
 'Padma' 'the pot-to' 'the lid' 'is like'

(*Padma is made for each other.)

However, the existence of sentences like (27) and (28) indicate that two phrase structure rules are needed instead of a single rule like (26). These are a rule like (21), which will generate deep structure conjunctions of sentences, and another like (34), which will generate conjoined noun phrases in deep structure, in the case of sentences like (30)-(33).

- (34) NP \longrightarrow yi NPⁿ , $n \geq 2$

C.S. Smith (1969) presents grammatical evidence that leads to the postulation of two kinds of conjunction, phrasal and sentential. A phrase structure rule like (34) generates the first type of constructions, and a rule like (21) the latter. Lakoff and Peters (1966) discuss phrasal conjunction at length, giving examples of conjoined elements that could not have resulted from deep structure sentential

conjunction. They also demonstrate a relationship between sentences containing conjoined subject NPs, and sentences in which the second conjunct appears as a postverbal prepositional phrase.

In Sinhalese, there are predicates like those in (30)-(33) which can only take phrasally conjoined noun phrases as subject. As the b sentences illustrate they cannot have sententially conjoined paraphrases. There are other types of constructions too, like those noted by Smith and illustrated below, in which the subject NP can only be interpreted as phrasally conjoined. The ungrammaticality of (35) b where oye piṅgaane (that plate) is coreferential indicates that a cannot be derived from a sentential conjunction.

- (35) a padma yi sunil uyi oye piṅgaane bindaa
 'Padma' 'and' 'Sunil' 'and' 'that' 'plate' 'broke'

(Padma and Sunil broke that plate.)

- b *padma oye piṅgaane bindaa yi sunil oye
 'Padma' 'that' 'plate' 'broke' 'and' 'Sunil' 'that'
 piṅgaane bindaa yi
 'plate' 'broke' 'and'

(*Padma broke that plate and Sunil broke that plate.)

In other cases, there is a systematic ambiguity in sentences like (36) and (37). (36) may be interpreted to mean that Sunil and Padma each bought the new book. In this case it has a paraphrase in a sentential conjunction, and may also occur with adverbials like vene veneme (separately), tani taniveme (individually), denname (both). (36) may alternatively be interpreted to mean that Sunil and Padma together bought a copy of the new book. In this case it has no

sentential conjunction paraphrase, and it may occur with adverbials like ekəTe (together), denna ekke (the two together), havule (jointly).

- (36) sunil uyi padma yi alut pote gattaa
'Sunil' 'and' 'Padma' 'and' 'new' 'the book' 'bought'

(Sunil and Padma bought the new book.)

- (37) padma kiri yi pæni yi kanəvaa
'Padma' 'curd' 'and' 'treacle' 'and' 'is eating'

(Padma is eating curd and treacle.)

The presence of the two sets of adverbials cannot however be used to test instances of phrasal and sentential conjunction as there are sentences like (38) in which dennəme (both) can appear, but which contains a phrasally conjoined subject NP; and others like (39) in which ekəTe (together) cannot appear, though it contains a phrasally conjoined subject NP.

- (38) a sunil uyi padma yi dennəme ekə puTuvee
'Sunil' 'and' 'Padma' 'and' 'both' 'one' 'the chair-on'
vaaDivunaa
'sat'

(Sunil and Padma both sat on the same chair.)

- b *sunil ekə puTuvee vaaDivunaa
'Sunil' 'one' 'the chair-on' 'sat'

(*Sunil sat on the same chair.)

- (39) *sunil uyi padma yi ekəTe isTeesəmeedi hamuvunaa
'Sunil' 'and' 'Padma' 'and' 'together' 'the station-at' 'met'

(*Sunil and Padma met together at the station.)

Thus, the deep structure of sentences like (3) and (15)-(17) must be generated by a rule like (21). The surface structures must

then be derived by a transformational rule of Conjunction Reduction. In (4) and (5), the conjoined noun phrases may be generated by (34). Alternatively, the deep structures of these sentences may be generated by (21), the relevant surface structures being derived after Conjunction Reduction applies.

Conjunction Reduction is a transformational rule which raises several problems. B.H. Partee notes that it is another case in which a rule as traditionally stated is meaning-preserving, except when it occurs with quantifiers.⁷ Sentences with quantifiers are not discussed here, and for the present purpose a traditional formulation of Conjunction Reduction, as in (40), will suffice.

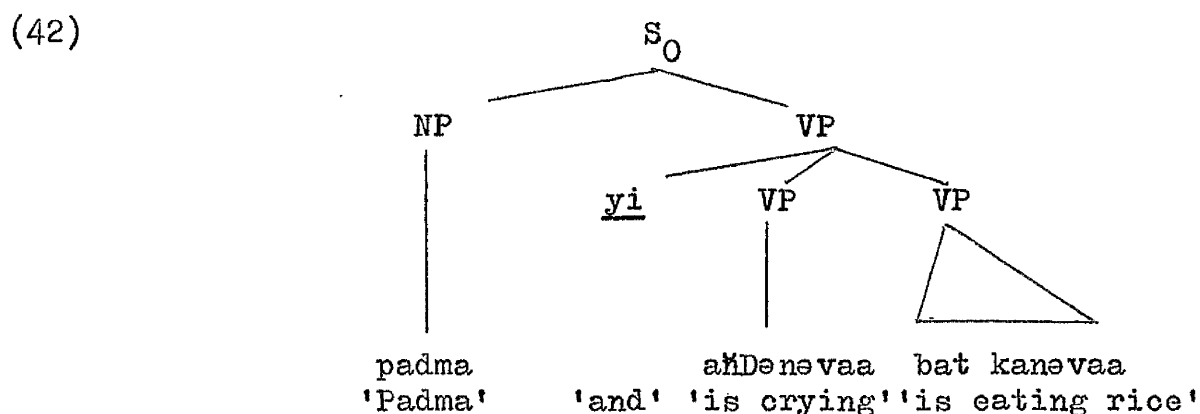
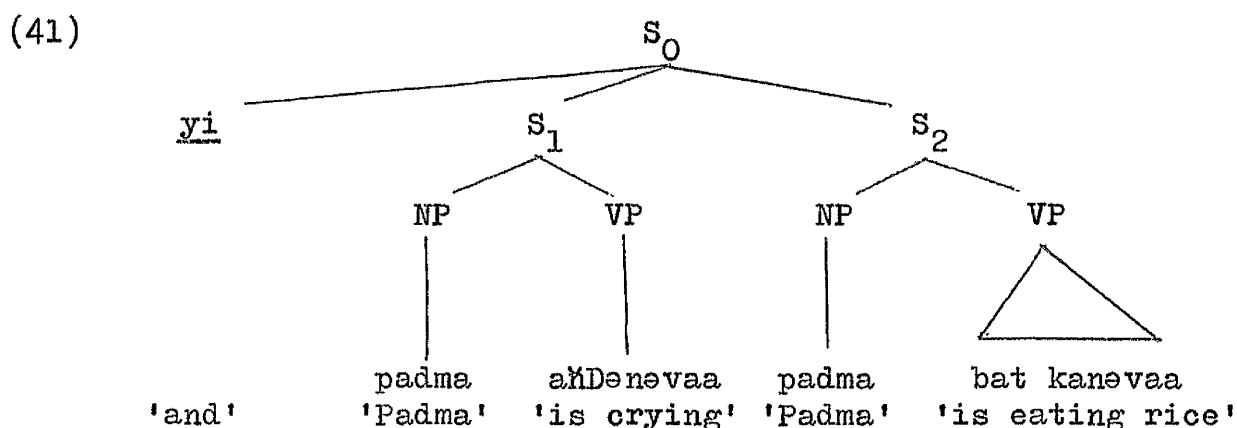
(40) Conjunction Reduction

$$\begin{array}{rcccl}
 \text{SD : } & \left\{ \begin{array}{c} \text{yi} \\ \text{(ekko)-hari} \end{array} \right\} & -[X-[Z_1]_Y-X]_S & [X-[Z_2 \dots n]_Y-X]_S^n & \\
 & 1 & 2 \quad 3 \quad 4 & 5 \quad 6 & 7 \\
 & & & \implies & \text{OPT} \\
 \text{SC : } & 0 & 2 \quad 1+3+6 \quad 4 & 0 \quad 0 & 0 \\
 \text{Conditions: } & \underline{a} \quad 2 = 5 & & & \\
 & \underline{b} \quad 4 = 7 & & &
 \end{array}$$

The rule of Conjunction Copying was formulated to apply to any set of conjoined constituents dominated by a node Y. In the

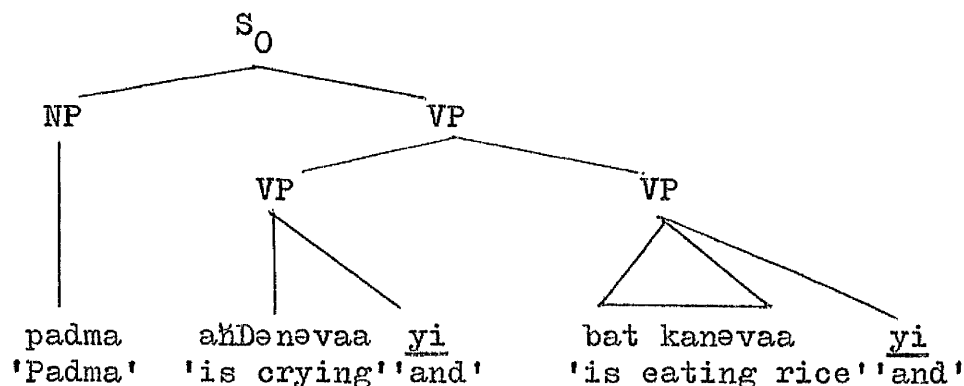
7. B.H. Partee (1971), p. 12.

cases considered earlier, like (2) and (14), the particular node in question was S. In a sentence like (3), the relevant deep structure, (41), is generated by (21). Since both conjuncts in (41) have an identical subject NP padma, Conjunction Reduction may optionally derive (42).



(42) meets the structural description of Conjunction Copying, the relevant node in this case being VP, and hence phrase marker (43) is obligatorily derived.

(43)



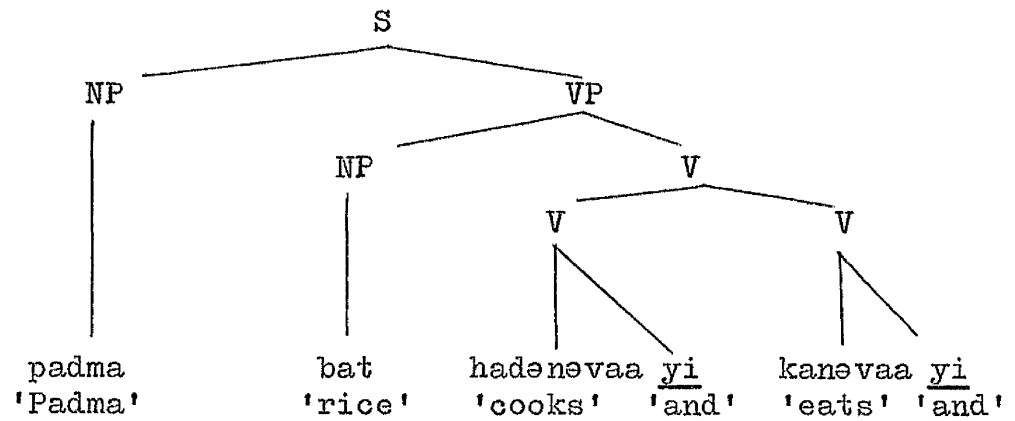
(43) is the terminal string underlying (3). Where optional Conjunction Reduction fails to apply, (41) meets the structural description of Conjunction Copying, the relevant node in this case being S. When this rule operates on (41) a surface structure (44) is derived.

(44) padma aḥDenēvaa yi padma bat kanēvaa yi
 'Padma' 'is crying' 'and' 'Padma' 'rice' 'is eating' 'and'

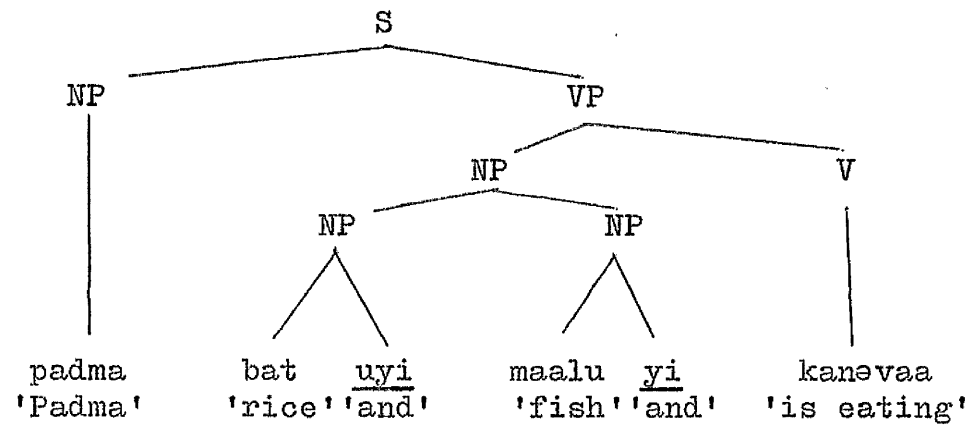
(Padma is crying and Padma is eating her rice.)

Conjunction Reduction and Conjunction Copying may also apply to the relevant underlying structures to yield terminal phrase markers like (45)-(48). In (45), the conjuncts have a common subject and object NP; in (46), a common subject NP and main verb; in (47), a common VP; and in (48), again a common subject NP and main verb. (45)-(48) have surface structures (49), (4), (5) and (50) respectively.

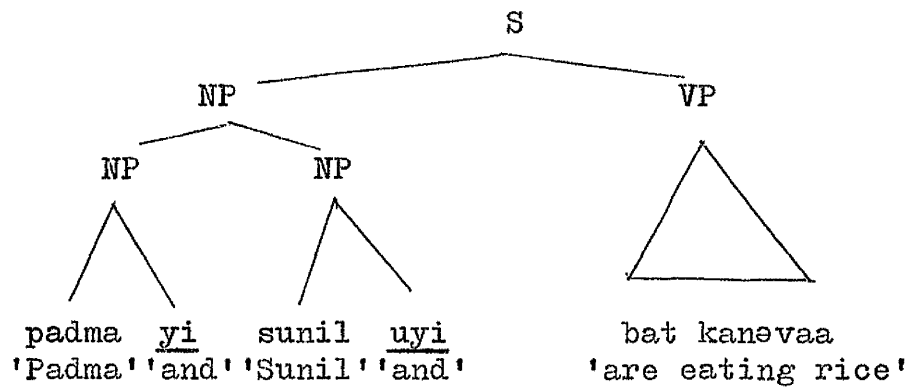
(45)



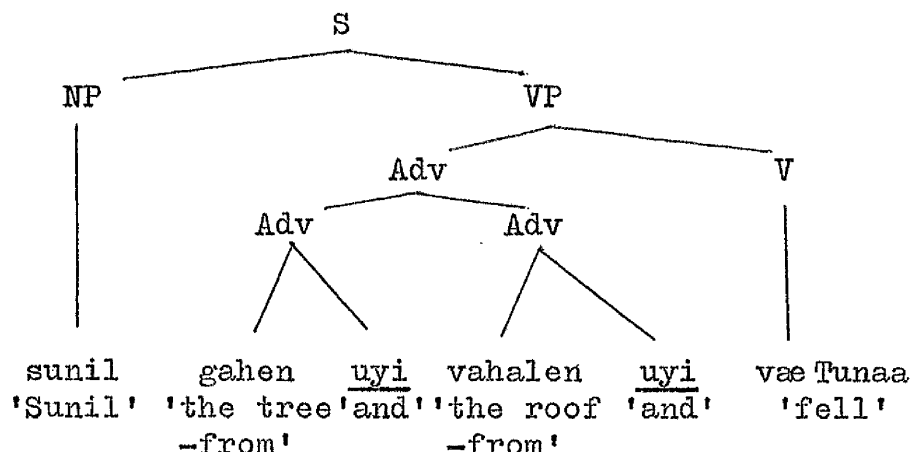
(46)



(47)



(48)



- (49) padma bat hadənevaa yi kanəvaa yi
 'Padma' 'rice' 'cooks' 'and' 'eats' 'and'

(Padma cooks and eats the rice.)

- (50) sunil gahen uyi vahalen uyi vae Tunaa
 'Sunil' 'the tree-from' 'and' 'the roof-from' 'and' 'fell'

(Sunil fell from the tree and from the roof.)

Since main verbs in Sinhalese are not marked to agree in person, gender or number with the subject NP, no further adjustments are necessary in phrase markers like (47), in which two singular noun phrases are transformationally conjoined. Where a conjoined sentence has a nominal predicate however, the usual Number and Case Agreement rule (Ch. 2 p. 60 (35)) must operate to adjust the predicate to agree in number with the subject NP. Thus in (52), the deep structure conjuncts are (51) a and b, in each of which the nominal predicate is horek (a thief). In (52), after Conjunction Reduction transformationally conjoins the singular subject NPs padma and sunil, the agreement rule applies to adjust the nominal predicate

to the plural horu (thieves).

- (51) a padma horek b sunil horek
 'Padma' 'a thief-is' 'Sunil' 'a thief-is'
 (Padma is a thief.) (Sunil is a thief.)
- (52) padma yi sunil uyi horu
 'Padma''and' 'Sunil''and' 'thieves-are'
 (Padma and Sunil are thieves.)

An additional operation is needed in constructions where sentences like (53) a and b are conjuncts. Here the object NP in each case is potak (a book). Where the repeated noun phrase is not coreferential, after Conjunction Reduction has applied, a further rule must apply to yield a plural object NP pot (books) as in (54). C.S. Smith discusses the need for similar rules in English.⁸

- (53) a padma potak gattaa b sunil potak gattaa
 'Padma' 'a book' 'bought' 'Sunil' 'a book' 'bought'
 (Padma bought a book.) (Sunil bought a book.)
- (54) padma yi sunil uyi pot gattaa
 'Padma''and' 'Sunil''and' 'books' 'bought'
 (Padma and Sunil bought books.)

Gapping, as formulated by J.R. Ross, operates to delete indefinitely many occurrences of a repeated main verb in a conjoined structure.⁹ He formulates the following hypothesis:

8. C.S. Smith (1969), p. 78.

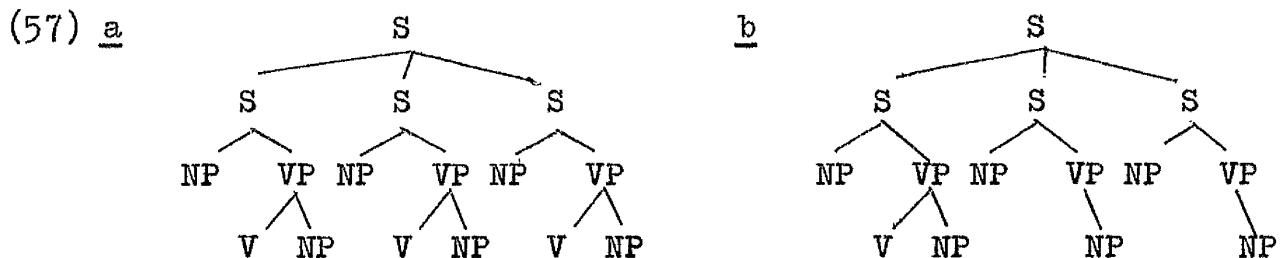
9. J.R. Ross (1970b), p. 250.

"The order in which GAPPING operates depends on the order of elements at the time that the rule applies; if the identical elements are **on** left branches, GAPPING operates forward; if they are on right branches, it operates backward".¹⁰

Forward and Backward Gapping are collapsed by him into a single rule. (55) and (56) are the respective schematic representations Ross gives of Forward and Backward Gapping. He represents them diagrammatically as (57) and (58). Ross indicates that for speakers of some languages (59) may seem a more natural analysis of the structure derived by Backward Gapping, but suggests that in general, there seems to be justification for collapsing both varieties of Gapping into a single rule.

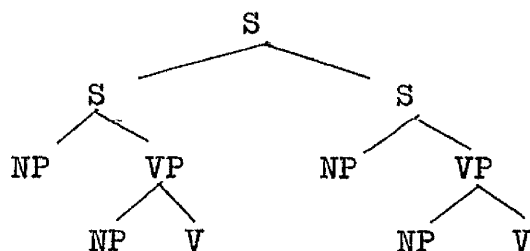
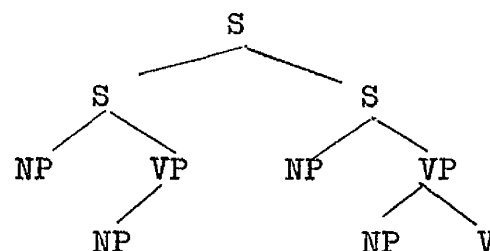
(55) a SVO + SVO + SVO + . . . + SVO \Rightarrow
 b SVO + SO + SO + . . . + SO

(56) a SOV + SOV + SOV + . . . + SOV \Rightarrow
 b SO + SO + . . . + SO + SOV

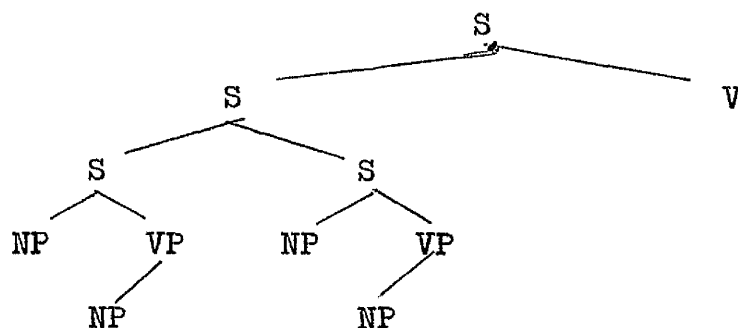


10. J.R. Ross (1970b), p. 251.

, *ibid*

(58) ab

(59)



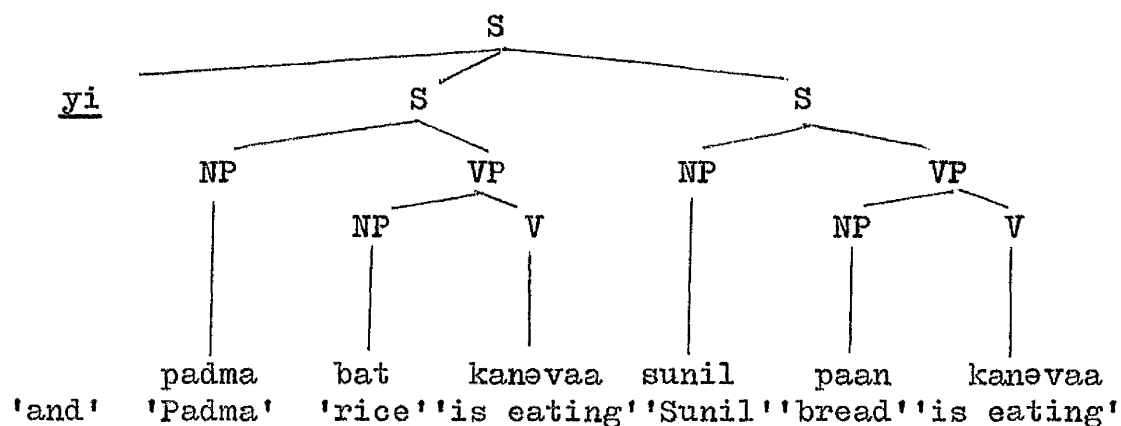
As indicated in the formulation of the rule of Scrambling (Ch. 2 p. 54 (27)), the only order of constituents possible in conjoined structures in Sinhalese is subject-object-verb. Hence, according to the principles given above, if a rule of Gapping exists in Sinhalese, it must operate backward.

(60) is a grammatical sentence of Sinhalese, and must have a deep structure (61). If Backward Gapping applies to (61), then (62) is derived. (62) meets the structural description of Conjunction Copying, and this rule then yields a terminal phrase marker (63). (64) is the resulting surface structure.

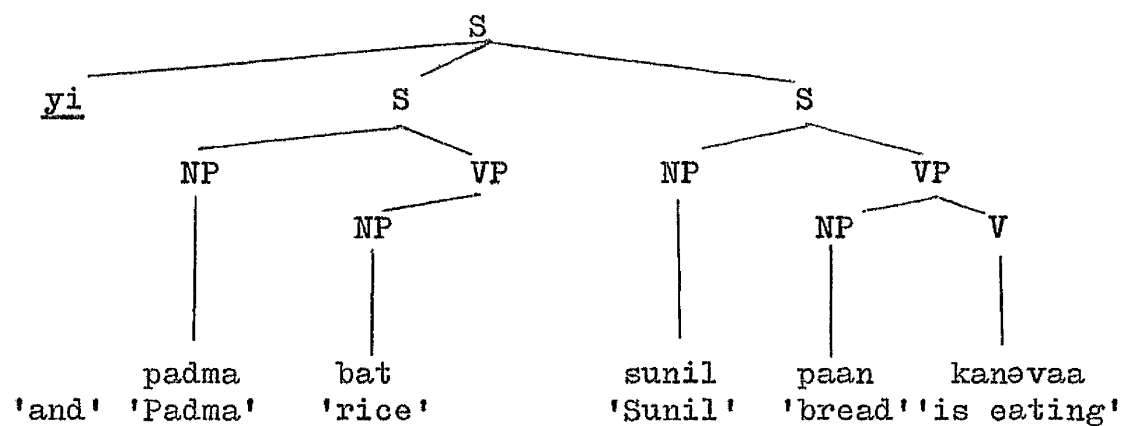
(60) padma bat uyi sunil paan uyi kanēvaa
 'Padma' 'rice' 'and' 'Sunil' 'bread' 'and' 'are eating'

(Padma is eating rice, and Sunil bread.)

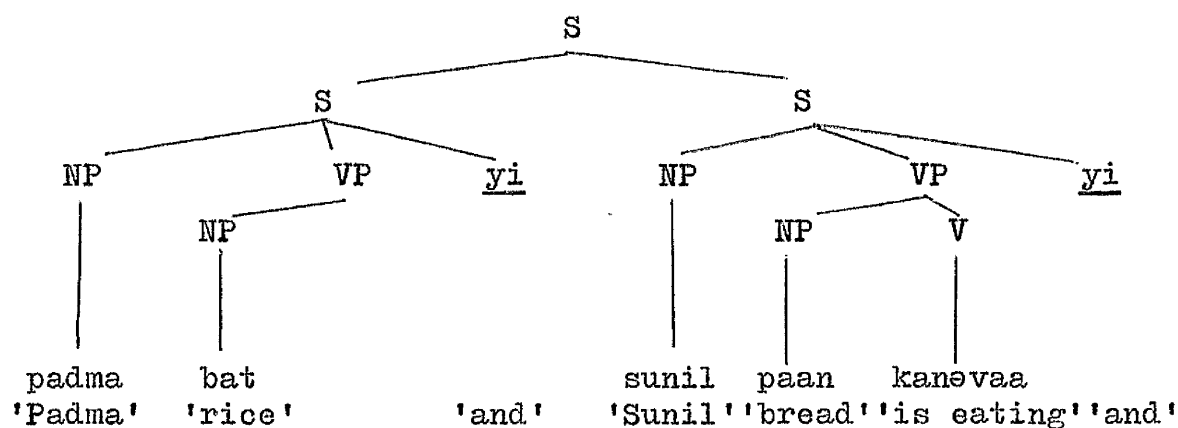
(61)



(62)



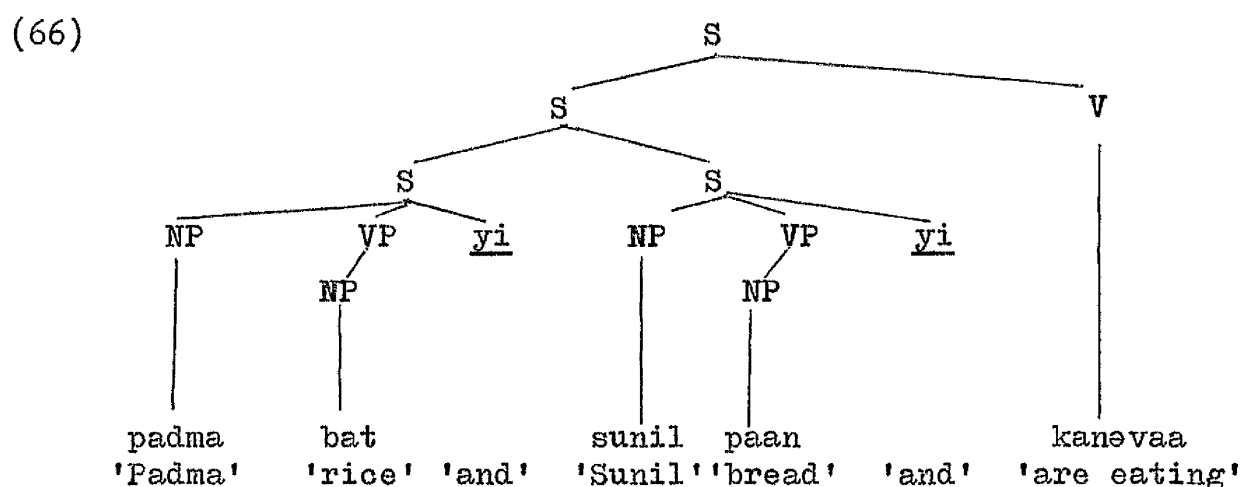
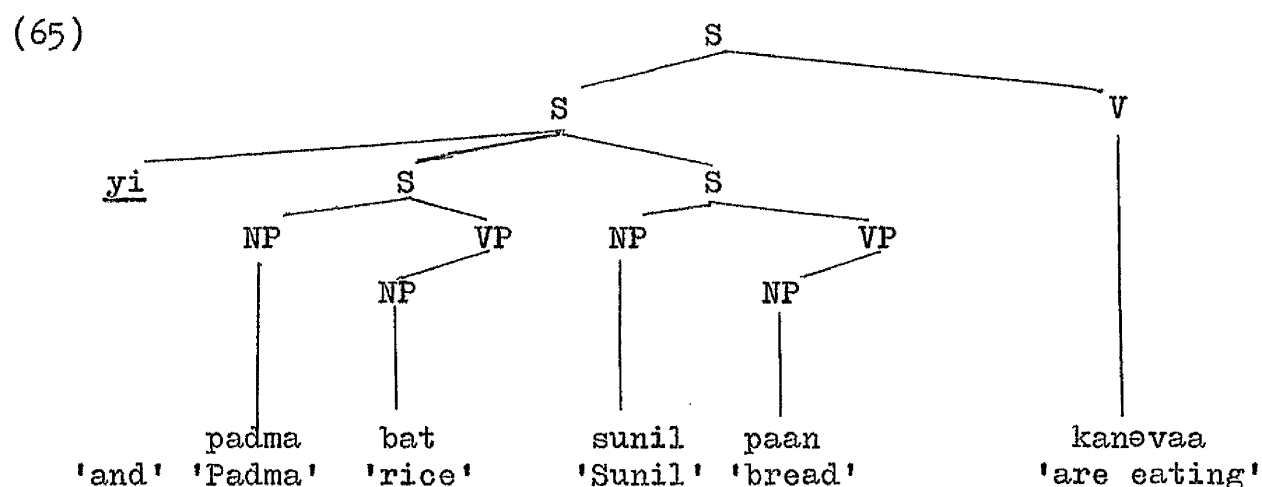
(63)



(64) *padma bat uyi sunil paan kanəvaa yi
 'Padma' 'rice' 'and' 'Sunil' 'bread' 'is eating' 'and'

The ungrammaticality of (64) indicates that Backward

Gapping as formulated cannot apply to conjoined structures like (61). However (61) also meets the structural description of Conjunction Reduction, the common constituent in the conjuncts being the verb kanēvaa (is eating). If Conjunction Reduction applies, a derived structure (65) results. Conjunction Copying must now apply obligatorily, deriving the terminal phrase marker (66). (60) will then be the resulting surface structure.



Hence, it appears that surface structures like (60) are

- (69) ja vodu, i Anna vodku pila
'I' 'water' 'and' 'Anna' 'vodka' 'drank'

(I drank water, and Anna vodka.)

Now consider the Sinhalese sentence (70). Both conjuncts have a common nominal predicate hapenek (an expert), which agrees in number with the respective subject NPs sunil and padma. In the second conjunct, the nominal predicate may also optionally agree in gender with the subject NP, then appearing as hapeni(yek) (an expert-FEM). If Gapping applied to such a sentence, (71), in which the nominal predicate is singular, and also optionally feminine, would be the resulting surface structure. (71) however is ungrammatical.

- (70) sunil sindu kiyannə hapenek uyi padma
'Sunil' 'to sing' 'a clever one-is' 'and' 'Padma'
naTannə hapenek uyi (or hapeni(yek) uyi)
'to dance' 'a clever one-is' 'and' 'a clever one-is' 'and'
FEM

(Sunil is an expert at singing, and Padma is an expert at dancing.)

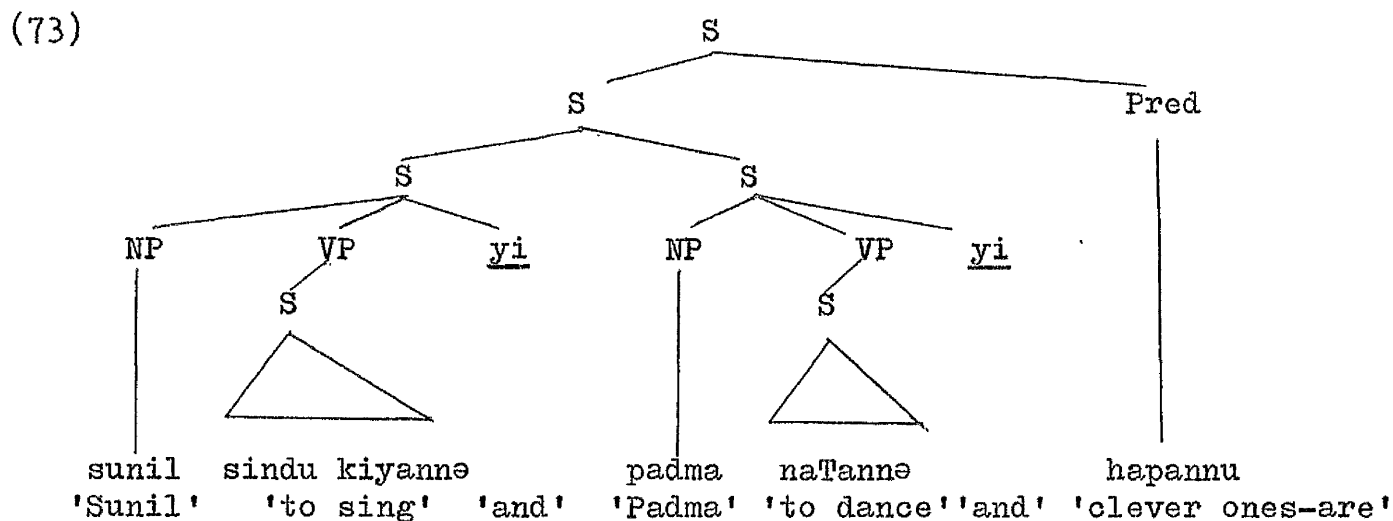
- (71) *sunil sindu kiyanna yi padma naTanna yi
'Sunil' 'to sing' 'and' 'Padma' 'to dance' 'and'
hapenek (or hapeni(yek))
'a clever one-is' 'a clever one-FEM-is'

(Sunil is an expert at singing, and Padma at dancing.)

There exists a sentence like (72) corresponding to (70), in which the nominal predicate occurs only once. In this case however, the predicate is the plural hapannu (experts). This suggests that the underlying structure of (72) is (73), which must be derived from an underlying conjoined structure by Conjunction Reduction. Since the subject in (73) is understood to be both Sunil and Padma, the usual

agreement rule operates to mark the nominal predicate as plural.

- (72) sunil sindu kiyanna yi padma naTanna yi hapannu
 'Sunil' 'to sing' 'and' 'Padma' 'to dance' 'and' 'clever ones-are'
 (Sunil and Padma are experts at singing and dancing.)



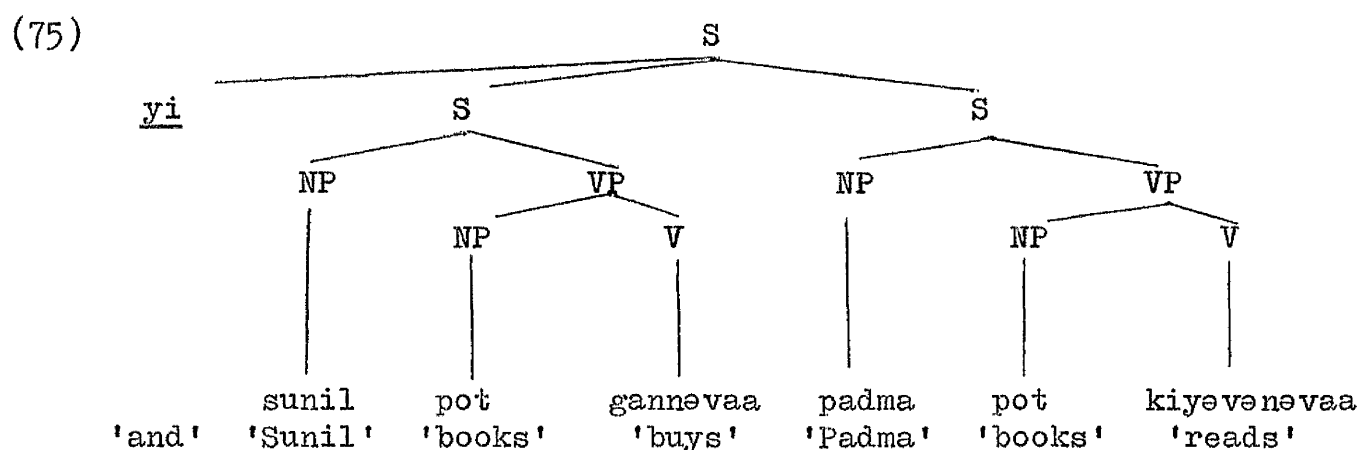
In my dialect (72) is a slightly odd sentence. Other informants have varied in their responses, and to several it has been a completely acceptable sentence. All informants have however agreed that where an alternative like (74), which has an adjectival predicate to which the agreement rule need not apply, is available, it is the more 'natural' and hence preferable version.

- (74) sunil sindu kiyanna yi padma naTanna yi hapan
 'Sunil' 'to sing' 'and' 'Padma' 'to dance' 'and' 'clever-are'
 (Sunil is expert at singing, and Padma at dancing.)

It would seem that in those dialects where (72) is completely acceptable, the Number and Case Agreement rule must be permitted to apply to split subject NPs like sunil and padma in (73). In other

dialects, the oddness of (72) can be explained by the fact that the applicability of the agreement rule to a configuration like (73) is questionable.

In the examples discussed up to now, the identical constituents in conjuncts have appeared either at one or both ends of a sentence. In a deep structure like (75), on the other hand, the conjuncts share an identical object NP pot (books), which occurs in the middle of the sentence.



(75) does not meet the structural description of Conjunction Reduction, and hence this rule cannot apply. If the repeated occurrence of pot (books) is to be deleted, some kind of gapping or object deletion rule must exist in Sinhalese. The ungrammaticality of both (76) and (77) demonstrates that no such rules exist. The only rule that can apply in such a case if the two occurrences of pot (books) are coreferential, is Pronominalisation, which would derive surface

structures like (78) and (79).

- (76) *sunil pot gannevaa yi padma kiyēvenēvaa yi
'Sunil' 'books' 'buys' 'and' 'Padma' 'reads' 'and'

(*Sunil buys books and Padma reads.)

- (77) *sunil gannevaa yi padma pot kiyēvenēvaa yi
'Sunil' 'buys' 'and' 'Padma' 'books' 'reads' 'and'

(Sunil buys and Padma reads books.)

- (78) sunil pot gannevaa yi padma eevaa kiyēvenēvaa yi
'Sunil' 'books' 'buys' 'and' 'Padma' 'them' 'reads' 'and'

(Sunil buys books and Padma reads them.)

- (79) sunil pot gannevaa yi padma ee pot kiyēvenēvaayi
'Sunil' 'books' 'buys' 'and' 'Padma' 'those' 'books' 'reads' 'and'

(Sunil buys books and Padma reads those books.)

(80)-(83) show that the same facts are true when a constituent other than the object NP, but which occurs in the middle of a sentence, is repeated in all the conjuncts.

- (80) sunil mame yanə eke gæne tarahayi (uyi)
'Sunil' 'I' 'going' 'thing' 'about' 'is angry' 'and'
padma mame yanə eke gæne dukayi (uyi)
'Padma' 'I' 'going' 'thing' 'about' 'is sad' 'and'

(Sunil is angry about my going, and Padma is sad about my going.)

- (81) *sunil mame yanə eke gæne tarahayi (uyi)
'Sunil' 'I' 'going' 'thing' 'about' 'is angry' 'and'
padma dukayi (uyi)
'Padma' 'is sad' 'and'

(Sunil is angry about my going, and Padma is sad.)

- (82) *sunil tarahayi (uyi) padma mame yanə eke gæne
'Sunil' 'is angry' 'and' 'Padma' 'I' 'going' 'thing' 'about'
dukayi (uyi)
'is sad' 'and'

(Sunil is angry and Padma is sad about my going.)

- (83) sunil mame yanə eke gæne tarahayi (uyi)
 'Sunil' 'I' 'going' 'thing' 'about' 'is angry' 'and'
 padma ee(ke) gæne dukayi (uyi)
 'Padma' 'it' 'about' 'is sad' 'and'

(Sunil is angry about my going, and Padma is sad about it.)

However, there exists a rule of Adverb Preposing in Sinhalese by which some adverbial constituents are optionally moved to the front of a sentence. The b sentences below are all derived by this rule from the corresponding a sentences.

- (84) a padma mame yanə eke gæne dukayi
 'Padma' 'I' 'going' 'thing' 'about' 'is sad'
b mame yanə eke gæne padma dukayi
 'I' 'going' 'thing' 'about' 'Padma' 'is sad'

(Padma is sad about my going.)

- (85) a padma sunil ekke tarahayi
 'Padma' 'Sunil' 'with' 'is angry'
b sunil ekke padma tarahayi
 'Sunil' 'with' 'Padma' 'is angry'

(Padma is angry with Sunil.)

- (86) a padma pokune laŋge vaadivunaa
 'Padma' 'the pond' 'near' 'sat down'
b pokune laŋge padma vaadivunaa
 'the pond' 'near' 'Padma' 'sat down'

(Padma sat down near the pond.)

This rule will not be discussed here or stated formally, but (84)-(86) show that some such rule must exist. This rule is distinct from the Scrambling rule discussed in Chapter 2 (p. 54 (27)),

because it can apply to sentences in conjoined structures. Hence, it can apply to the conjuncts in (80) to derive a surface structure like (87).

- (87) mame yane eke gaene sunil tarahayi (uyi)
 'I' 'going' 'thing' 'about' 'Sunil' 'is angry' 'and'
mame yane eke gaene padma dukayi (uyi)
 'I' 'going' 'thing' 'about' 'Padma' 'is sad' 'and'

(Sunil is angry about my going and Padma is sad about my going.)

Now in a derived structure like (87), the repeated adverbial constituent is no longer in the middle of each conjunct, but at the extreme left. In this case, Conjunction Reduction can apply to derive a surface structure (88).

- (88) mame yane eke gaene sunil tarahayi (uyi)
 'I' 'going' 'thing' 'about' 'Sunil' 'is angry' 'and'
 padma dukayi (uyi)
 'Padma' 'is sad' 'and'

(Sunil is angry, and Padma is sad, about my going.)

The way Conjunction Reduction operates on conjoined structures in which the only repeated constituent is a negative verb raises interesting problems. There are two reduced sentences, (90) and (91), corresponding to the conjoined structure in (89).

- (89) padma bat kanne naehae yi sunil paan kanne naehae yi
 'Padma' 'rice' 'eats' NEG 'and' 'Sunil' 'bread' 'eats' NEG 'and'

(Padma doesn't eat rice and Sunil doesn't eat bread.)

- (90) padma bat kanne yi sunil paan kanne yi naehae
 'Padma' 'rice' 'eats' 'and' 'Sunil' 'bread' 'eats' 'and' NEG

(Padma doesn't eat rice and Sunil doesn't eat bread.)

- (91) padma bat uyi sunil paan uyi kanne næ hæ
 'Padma' 'rice''and' 'Sunil' 'bread''and' 'eats' NEG

(It is rice that Padma doesn't eat, and bread that Sunil doesn't eat.)

In (90), yi (and) is attached to the Incomplete main verb kanne (eat-INCOMPLETE) in each conjunct. In (91), it is attached to the respective object NPs bat (rice) and paan (bread). What raises a problem is that (90) and (91) are not synonymous though they should presumably be so, if they are both derived from (89) by Conjunction Reduction. Instead, only (91) has a paraphrase in the pseudo-cleft construction corresponding to (89), (92).

- (92) padma kanne nætte batuyi sunil kanne nætte
 'Padma' 'eats' NEG 'rice-is''and''Sunil' 'eats' NEG
 paanuyi
 'bread-is''and'

(It is rice that Padma doesn't eat, and it is bread that Sunil doesn't eat.)

These constraints on the application of Conjunction Reduction to conjoined structures with negative sentences seem to provide an argument in favour of deriving pseudo-cleft constructions from the corresponding simple sentences as suggested in Chapter 8, rather than from complex underlying structures.

R. Lakoff (1971) distinguishes between 'symmetric' and 'asymmetric' uses of 'and', 'but' and 'or' in English. She uses the concept of 'presupposition' to distinguish between symmetric and asymmetric uses of 'and', suggesting that:

" . . . in the latter [symmetric conjunction], the predicate of the presupposition can be of any class; but in asymmetric conjunction, the predicate is a member of the small class of asymmetric two-place predicate-taking verbs: cause and precede . . . [etc.]"¹³

G. Lakoff and S. Peters suggest on the other hand, that asymmetric conjunctions with 'and' are derived from sentences in which ordinary symmetric 'and' is followed by a deep structure occurrence of 'then' which may be deleted under certain conditions.¹⁴

Conjoined structures with yi (and) in Sinhalese may be interpreted in several ways. In a sentence like (3), repeated here for convenience, the Non-Past verbs aMDēnevaa and kanēvāa may refer to present time (cries, is crying etc.), generic time (usually cries etc.) or future time (will cry etc.). However even when the verbs are taken to refer specifically to generic time, any of the four interpretations of (3) given below are possible.

- (3) padma aMDēnevaa yi bat kanēvāa yi
 'Padma' 'cries''and' 'rice' 'eats''and'

(Padma cries and eats her rice.)

- a Padma does both things simultaneously, cries and eats her rice.
- b Padma does the two things consecutively, cries and eats her rice.
- c Padma does two things, cries and eats her rice, but the relative timing of the actions is unspecified.
- d Padma does two things in continuous alternation, cries and eats her rice.

13. R. Lakoff (1971), p. 131.

14. G. Lakoff and S. Peters (1966), footnote 10.

I will not attribute the differences in these possible interpretations to corresponding differences in the underlying structures. H.P. Grice suggests that the different ways in which constructions with items like 'and' and 'or' are understood should not be attributed to different 'meanings' of such items, but rather to some general principles governing discourse or rational behaviour.¹⁵

He says:

"It is a commonplace of philosophical logic that there are, or appear to be, divergences in meaning between, on one hand, at least some of what I shall call the formal devices ' \neg ', ' \cdot ', ' \vee ', ' \supset ', ' (x) ', ' $(\exists x)$ ', ' $(\wedge x)$ ', (when these are given a standard two-valued interpretation), and, on the other, what are taken to be their analogues or counterparts in natural language, such expressions as 'not', 'and', 'or', 'if', 'all', 'some' (or 'at least one'), 'the'. . . . I wish, rather, to maintain that the common assumption . . . that the divergences do in fact exist is (broadly speaking) a common mistake, and that the mistake arises from an inadequate attention to the nature and importance of the conditions governing conversation".¹⁶

In accordance with this view, I assume here that general principles pertaining to conversation or discourse, rather than different 'meanings' of the particle yi (and) account for the four possible interpretations of a sentence like (3). However, I will refer to an a type interpretation as a symmetric interpretation of a conjoined sentence, and a b type interpretation as an asymmetric interpretation.

15. H.P. Grice (1967), Lectures I and II.

16. H.P. Grice (1967), Lecture II, pp. 1-4.

Under a symmetric interpretation a conjoined sentence may appear with an adverb ekəvare (simultaneously), or, the adverb ee gamanmə (at the same time) may appear in a second conjunct. Hence (93) and (94) are open to symmetric interpretations only.

- (93) padma ekəvare aḥḍənevaa yi bat kanəvaa yi
'Padma' 'simultaneously' 'cries' 'and' 'eats her rice' 'and'

(Padma cries and eats her rice simultaneously.)

- (94) padma aḥḍənevaa yi ee gamanmə bat kanəvaa yi
'Padma' 'cries' 'and' 'at the same time' 'eats her rice' 'and'

(Padma cries, and eats her rice at the same time.)

Under an asymmetric interpretation, the adverb issellaa (first) may appear in a first conjunct, and an adverb iiTəpassee (after that) in a subsequent conjunct. (95) is therefore only open to an asymmetric interpretation. Further, under an asymmetric interpretation, the conjuncts may not be reversed without affecting the way in which the sentence as a whole is understood. Hence, if the conjuncts are reversed in a sentence like (3), under an asymmetric interpretation it will then be understood that Padma first eats her rice, and then cries.

- (95) padma issellaa aḥḍənevaa yi iiTəpassee bat kanəvaa yi
'Padma' 'first' 'cries' 'and' 'after that' 'eats her rice' 'and'

(Padma first cries, and then eats her rice.)

In Chapter 3 it is noted that sentences with appositive relative phrases are open to both symmetric and asymmetric interpretations, and this is one criterion on which it is claimed that such sentences are derived from deep structure conjunctions.

It was noted earlier that exceptions to the general claim that all sentences are freely conjoinable in Sinhalese arise in some cases where identical sentences are conjoined. In a large number of cases it is true that two constituents cannot be conjoined if they are identical. Lakoff and Peters note the existence of this constraint for English.¹⁷ In Sinhalese, the ungrammaticality of sentences like (96)-(98) can be accounted for by such a constraint.

- (96) *padma lankaaven aavaa yi padma lankaaven aavaa yi
'Padma' 'Ceylon-from' 'came' 'and' 'Padma' 'Ceylon-from' 'came' 'and'

(*Padma came from Ceylon and Padma came from Ceylon.)

- (97) *padma aḥḍenēvaa hari aḥḍenēvaa hari
'Padma' 'is crying' 'or' 'is crying' 'or'

(*Padma is crying or is crying.)

- (98) *padma yi padma yi aḥḍenēvaa
'Padma' 'and' 'Padma' 'and' 'is crying'

(*Padma and Padma is crying.)

Again, if some principle like the Cooperative Principle outlined by Grice is shown to govern conversation, then the existence of such a constraint can be explained by the fact that a large number of cases in which identical constituents are conjoined violate a maxim like 'Be relevant'.¹⁸

There exist in Sinhalese some special cases in which sentences with conjoined identical constituents are grammatical.

17. G. Lakoff and S. Peters (1966), p. 121.

18. See footnote 4.

(99)-(103) are examples.

- (99) padma aṁDənevaa yi aṁDənevaa yi
'Padma' 'is crying' 'and' 'is crying' 'and'

(Padma is crying and crying.)

- (100) padma aṁDəṇə aṁDəṇə səree sunil hinaavenevaa
'Padma' 'crying' 'crying' 'time' 'Sunil' 'laughs'

(Sunil laughs each time Padma cries.)

- (101) sunil horek horek horek oyaa koccəre
'Sunil' 'is a thief' 'is a thief' 'is a thief' 'you' 'how much'
nəhəyi kivvat horek
'no' 'say-even' 'is a thief'

(Sunil is a thief, a thief, a thief, however much you deny it, he is a thief.)

- (102) sunil usayi usayi usayi pol gahak
'Sunil' 'is tall' 'is tall' 'is tall' 'coconut' 'a tree'
taram usayi
'extent-to' 'is tall'

(Sunil is tall, tall, tall, tall as a coconut tree.)

- (103) padma apiṭə paan pette pette dunnaa
'Padma' 'us-to' 'bread' 'slice' 'slice' 'gave'

(Padma gave us a slice of bread each.)

The conjoining of identical constituents in (99) and (100) conveys a sense of iterative action. In (101) and (102), this device is used to convey a sense of emphasis. In such cases, the conjoining of identical constituents is relevant to the special purpose of such sentences, and hence these examples do not violate the principle of relevance. In (103), the repeated instances of pette (slice) are not coreferential, and hence such sentences are not counterexamples

to the claim that identical constituents may not be conjoined.¹⁹

Iterative conjunctions like (99) exhibit certain interesting properties. Such sentences are open only to an asymmetric interpretation. A sentence like (104), in which the second and third conjuncts appear with the adverbial iiTēpassee (after that), is unusual, but grammatical. The same is true of (105). (106) in which the second conjunct appears with the adverbial eegamanne (at the same time) however, is ungrammatical.

- (104) padma aṁDēnevaa yi iiTēpassee aṁDēnevaa yi
 'Padma' 'cries' 'and' 'after that' 'cries' 'and'
 iiTēpassee aṁDēnevaa yi
 'after that' 'cries' 'and'

(Padma cries, and cries again, and cries again.)

- (105) padma eke hamaareṭe aṁDēnevaa yi ekayi tis ekeṭe
 'Padma' 'at one thirty' 'cries' 'and' 'at one thirty one'
 aṁDēnevaa yi ekayi tis dekeṭe aṁDēnevaa yi
 'cries' 'and' 'at one thirty two' 'cries' 'and'

(Padma cries at one thirty, and cries at one thirty one, and cries at one thirty two.)

- (106) *padma aṁDēnevaa yi eegamanne aṁDēnevaa yi
 'Padma' 'cries' 'and' 'at the same time' 'cries' 'and'

(*Padma cries, and cries at the same time.)

Lakoff and Peters note several idiosyncrasies of such iterative conjunctions in English.²⁰ They note that such constructions

19. See I.P. Jayasekera (1970) for an interesting collection of such reduplicative constructions in Sinhalese.

20. G. Lakoff and S. Peters (1966), footnote 8.

Lakoff and Peters attempt to explain the idiosyncrasies of such conjunctions by suggesting that they are not derived from deep structure conjunctions of identical sentences, but by a late transformational rule from a deep structure in which the conjoined sentence is the complement of an abstract verb of the 'keep', 'continue' class. They suggest that this abstract verb, or bundle of features, is deleted in the transformation forming the conjunction. They point out that only certain types of predicates may appear in iterative conjunctions, and that it is this same set of predicates only that may appear in complements of verbs like 'keep' and 'continue'.

(99), repeated here for convenience, and (110)-(117) demonstrate that only certain types of predicates may appear in iterative conjunctions in Sinhalese. Some of the sentences marked ungrammatical below are grammatical under certain readings. As (101) illustrates, (113) is grammatical when interpreted as an emphatic conjunction. (114) is grammatical when biḥdinevaa (smash) is taken to mean 'break bit by bit' rather than 'smash in one go'. (115) is a possible sentence if kasaade baḥdinevaa (marry) refers to a continuous process of marrying Sunil, divorcing him, and remarrying him etc. However all these sentences are ungrammatical under the particular readings assigned to them below.

(99) padma aḥḍenēvaa yi aḥḍenēvaa yi
'Padma' 'is crying' 'and' 'is crying' 'and'

(Padma is crying and crying.)

- (110) sunilTə hinaayanəvaa yi hinaayanəvaa yi
'Sunil-to' 'laughing happens' 'and' 'laughing happens' 'and'
(Sunil laughs and laughs involitively.)
- (111) padma sunilvə dakinevaa yi dakinevaa yi
'Padma' 'Sunil' 'sees' 'and' 'sees' 'and'
(Padma sees and sees Sunil.)
- (112) *padma laəjjaayi laəjjaayi
'Padma' 'is shy' 'and' 'is shy' 'and'
(*Padma is shy and shy.)
- (113) *sunil horek uyi horek uyi
'Sunil' 'is a thief' 'and' 'is a thief' 'and'
(*Sunil is a thief and a thief.)
- (114) *sunil piŋgaane biŋdinevaa yi biŋdinevaa yi
'Sunil' 'the plate' 'is smashing' 'and' 'is smashing' 'and'
(*Sunil is smashing and smashing the plate.)
- (115) *padma sunilvə kasaade baŋdinevaa yi kasaade baŋdinevaa yi
'Padma' 'Sunil' 'marries' 'and' 'marries' 'and'
(*Padma marries and marries Sunil.)
- (116) *meesee tiyenəvaa yi tiyenəvaa yi
'the table' 'is' 'and' 'is' 'and'
(*The table is there and is there.)
- (117) *padma ætte dannevaa yi dannevaa yi
'Padma' 'the truth' 'knows' 'and' 'knows' 'and'
(*Padma knows and knows the truth.)

Now exactly the same paradigm of grammaticality is encountered if adverbials like navətinne nætuve (without stopping), ivəreyak nætuve (without an end), digəTəmə (continuously) are inserted in adverbial position in (118)-(126).

Such adverbials in Sinhalese convey a sense of continuity similar to that conveyed by English verbs of the 'keep', 'continue' class. In addition, the identical paradigm of grammaticality is encountered if adverbials of duration like aTee iħdēlaa dolaħa venēkal (from eight o'clock to twelve o'clock) are inserted in adverbial position in (118)-(126).

- (118) padma Adv aħDēnēvāa
 'Padma' 'cries'

(Padma cries Adv.)

- (119) sunilTē Adv hinaayanēvāa
 'Sunil-to' 'laughing happens'

(Sunil laughs involitively Adv.)

- (120) padma Adv sunilvē dakinēvāa
 'Padma' 'Sunil' 'sees'

(Padma sees Sunil Adv.)

- (121) *padma Adv lāē jjaayi
 'Padma' 'is shy'

(Padma is shy Adv.)

- (122) *sunil Adv horek
 'Sunil' 'is a thief'

(Sunil is a thief Adv.)

- (123) *sunil Adv piħgaanē biħdinevāa
 'Sunil' 'the plate' 'smashes'

(Sunil smashes the plate Adv.)

- (124) *padma Adv sunilvē kasaadē baħdinevāa
 'Padma' 'Sunil' 'marries'

(Padma marries Sunil Adv.)

- (125) *meesee Adv tiyenəvaa
 'the table' 'is'

(The table is there Adv.)

- (126) *padma Adv ætte dannevaa
 'Padma' 'the truth' 'knows'

(Padma knows the truth Adv.)

The predicates in the ungrammatical sentences are of two distinct types. One type are predications held to be true for all time, or long stretches of time, rather than for particular points in time, e.g. tiyenəvaa (is), læjjaayi (is shy), horek (is a thief), dannevaa (knows). The second type are predications which can be true at only one point in time, and not for consecutive points in time, e.g. piŋgaane biŋdinevaa (smash the plate), kasaade baŋdinevaa (marry). It seems predictable that such predicates cannot appear in iterative conjunctions, or with adverbials indicating continuity, or adverbials of duration.

A clear relationship exists between sets of sentences like (99) and (110)-(117), and (118)-(126). There is no evidence to indicate however, that either set must be derived from the other. The relationship can be explained instead in terms of the particular properties of the predicates used in each set. Hence, there seems to be no reason to suggest that iterative conjunctions are derived from sentences like those in the second set. On the contrary, it was shown earlier that explanations exist for the idiosyncrasies of iterative conjunctions, and thus, that there is no reason why they should not

be derived quite regularly from deep structure conjunctions.

Summarising, in this chapter I claim that all Sinhalese sentences are freely conjoinable. The oddness of some such conjunctions in certain environments (see (1)) can be explained with reference to general principles of the sort suggested by Grice which govern conversation or discourse. Three major coordinating conjunctions are referred to, and a phrase structure rule is formulated to generate sentential conjunctions with yi (and) and (ekko)-hari (either-or). Cases are also noted which necessitate a rule of phrasal conjunction, and hence a further phrase structure rule generating deep structure conjunctions of noun phrases is formulated.

A transformational rule of Conjunction Reduction is outlined, and the way it operates on some typical conjoined structures is discussed. I argue further that Gapping does not apply to Sinhalese.

I then refer to several possible ways in which conjoined structures may be interpreted in Sinhalese. Some properties of symmetric and asymmetric conjunctions, in particular, are noted.

Finally, I suggest that the constraint which prevents the conjoining of identical constituents in a large number of cases can be explained in terms of the Gricean principles mentioned above. I note some cases in Sinhalese in which identical constituents can be conjoined. Of these, iterative conjunctions are examined in some detail. Though such constructions display several idiosyncratic

properties, I argue that they can be derived quite regularly from deep structure conjunctions.

CHAPTER 10

ADVERBIALS

In the phrase structure rules in Chapter 2, adverbials are expanded by a rule:

$$(1) \quad \text{Adv} \longrightarrow \left\{ \begin{array}{l} \text{Adverb} \\ \text{NP} + \left\{ \begin{array}{l} \underline{\text{Tə}} \\ \underline{\text{ee}} \\ \underline{\text{en}} \end{array} \right\} \\ \text{NP} + \text{Postposition} \end{array} \right\}$$

'Adverb' refers to a category of single word adverbials like nitərə (frequently), hoḥḍəTə or hoḥḍin (well), ikməṇəTə or ikmənin (fast), hayiyen (loudly or hard), ade (today), iiyee (yesterday), dæ n (now), metəṇə (here) etc.

'NP + $\left\{ \begin{array}{l} \underline{\text{Tə}} \\ \underline{\text{ee}} \\ \underline{\text{en}} \end{array} \right\}$ ' is used as a convenient label to refer to a

variety of adverbials which can be categorised semantically as Instrumental, Dative, Benefactive, Locative, Separative etc. and which appear with the case suffixes Tə, ee and en. The following are some examples of these: pihiyen (with the knife), laməyaTə (to, for the child), kaaməree (in, of the room), kaaməren (from the room).

'NP + Postposition' refers to a variety of postpositional phrases in Sinhalese which appear with postpositions like uḍə (on top of), yaTə (under), laṅge (near), gəṇə (about or concerning) etc.

The following are some examples of these: meesee uDe (on top of the table), meesee yaTe (under the table), meesee laŋge (near the table), laməya gæne (about the child).

The phrase structure expansion of NP is given as follows in Chapter 2.

$$(2) \quad \text{NP} \quad \longrightarrow \quad \text{Det} + \text{N}$$

In order to account for two processes of complex sentence formation, relativisation and NP complementation, this rule is extended in Chapter 3 and Chapter 4 to include (3) and (4).

$$(3) \quad \text{NP} \quad \longrightarrow \quad \text{S} + \text{NP}$$

$$(4) \quad \text{NP} \quad \longrightarrow \quad \text{Det} + (\text{S}) + \text{N}$$

Hence, as shown earlier in the relevant sections, the expansion of 'Adv' can also account for such adverbials as the following: laməya aŋDənevaaTe (for the child's crying), laməya aŋDənevaayee (in the child's crying), laməya aŋDənevaayin (by, from the child's crying), aŋDəne laməyaTe (to, for the child who is crying), aŋDəne laməyagen (from the child who is crying), laməya aŋDəne eke gæne (about the child's crying), aŋDəne laməya laŋge (near the child who is crying).

There are other types of adverbials in Sinhalese however which apparently cannot be accounted for by the existing set of rules. In Chapter 8, a rule of Pseudo-Cleft formation is postulated, by which the yi Copula can be attached to any major constituent of a

sentence. Consequently, it follows that this particle can be attached to any adverbial in a sentence. Hence, it is possible to determine whether any item or set of items in a sentence, other than the subject NP, object NP, main verb or predicate, is an adverbial by testing whether the yi Copula may be affixed to it in a corresponding pseudo-cleft construction. (5)-(7) below demonstrate that a coordinate conjunct in a conjoined sentence cannot be considered an adverbial. (8) and (9) demonstrate that sentences with suffixed particles t (even) and Te (although) are also not of adverbial status. This indicates that t and Te are probably some kind of subordinating conjunction, but they are not discussed here. (10)-(31) however are all grammatical, and hence the underlined portions in them are determined as adverbial constituents.

- (5) *padma bat kanne padma aḥDeṇvāa yi (uyi)
 'Padma' 'rice' 'eats' 'Padma' 'cries' 'and' 'is'
 (*It is Padma cries and that Padma eats her rice.)
- (6) *padma bat kanne padma aḥDeṇvāa eet uyi
 'Padma' 'rice' 'eats' 'Padma' 'cries' 'but' 'is'
 (*It is Padma cries but that Padma eats her rice.)
- (7) *padma bat kanne (ekko) padma aḥDeṇvāa hari uyi
 'Padma' 'rice' 'eats' 'either' 'Padma' 'cries' 'or' 'is'
 (*It is (either) Padma cries or that Padma eats her rice.)
- (8) *padma bat kanne padma ae ḥDuvat uyi
 'Padma' 'rice' 'eats' 'Padma' 'cries-even' 'is'
 (*It is even though Padma cries that Padma eats her rice.)

- (9) *padma bat kanne padma æ kDuvaatē yi
'Padma' 'rice' 'eats' 'Padma' 'cries-although' 'is'

(*It is although Padma cries that Padma eats her rice.)

- (10) padma bat kanne kaamēree yi
'Padma' 'rice' 'eats' 'the room-in' 'is'

(It is in the room that Padma eats her rice.)

- (11) padma bat kanne dolahaTa yi
'Padma' 'rice' 'eats' 'twelve-at' 'is'

(It is at twelve that Padma eats her rice.)

- (12) padma bat kanne gaha yaTa yi
'Padma' 'rice' 'eats' 'the tree-under' 'is'

(It is under the tree that Padma eats her rice.)

- (13) piḡgaane biḡdune sunil atin uyi
'the plate' 'broke' 'Sunil' 'hand by' 'is'

(It was Sunil who accidentally broke the plate.)

- (14) padma bat kanne mahat venna yi
'Padma' 'rice' 'eats' 'fat' 'to become' 'is'

(It is to become fat that Padma eats her rice.)

- (15) padmaTē oonee yanna yi
'Padma-to' 'is necessary' 'to go' 'is'

(It is to go that Padma wants.)

- (16) padma aḡDanne bat kanēvaaTē vāDiyen uyi
'Padma' 'cries' 'rice' 'eats-to' 'greater' 'is'

(It is more than she eats her rice that Padma cries, i.e. Padma does more crying than rice-eating.)

- (17) padma bat kanne aḡDe aḡDa yi
'Padma' 'rice' 'eats' 'crying-crying' 'is'

(It is "crying-crying", i.e. while she is crying, that Padma eats her rice.)

- (18) padma bat kanne aMDelaa yi
'Padma' 'rice' 'eats' 'having cried' 'is'

(It is after she has cried that Padma eats her rice.)

- (19) mamə gaha kappanne sunilTe kiyelaa yi
'I' 'the tree' 'get cut' 'by Sunil' 'is'

(It is by Sunil that I get the tree cut.)

- (20) mamə gaha kappanne sunil lavvaa yi
'I' 'the tree' 'get cut' 'by Sunil' 'is'

(It is by Sunil that I get the tree cut.)

- (21) padma aMDanne mamə yanevaayi kiyelaa yi
'Padma' 'cries' 'I' 'am going' 'having said' 'is'

(It is because I am going that Padma cries.)

- (22) padma bat kanne aMDene gaman uyi
'Padma' 'rice' 'eats' 'crying' 'time' 'is'

(It is while she is crying that Padma eats her rice.)

- (23) padma bat kanne æMDuve gaman uyi
'Padma' 'rice' 'eats' 'cried' 'time' 'is'

(It is as soon as she has cried that Padma eats her rice.)

- (24) padma bat kanne aMDene koTa yi
'Padma' 'rice' 'eats' 'crying' 'while' 'is'

(It is while she is crying that Padma eats her rice.)

- (25) padma bat kanne æMDuve koTa yi
'Padma' 'rice' 'eats' 'cried' 'while' 'is'

(It is when she has cried that Padma eats her rice.)

- (26) padma bat kanne aMDene kal uyi
'Padma' 'rice' 'eats' 'crying' 'until' 'is'

(It is until she cries that Padma eats her rice.)

- (27) padma vevulanne aMDene hindaa yi
'Padma' 'is shivering' 'crying' 'because' 'is'

(It is because she is crying that Padma is shivering.)

- (28) padma vevulanne aē ŋDuvot uyi
 'Padma' 'shivers' 'cries-if' 'is'

(It is if she cries that Padma shivers.)

- (29) padma vevulanne aē ŋDuvaa ma yi
 'Padma' 'shivers' 'cried' 'when' 'is'

(It is when she has cried that Padma shivers.)

- (30) padma vevulanne aŋDənevaa nam uyi
 'Padma' 'shivers' 'cries' 'if' 'is'

(It is if she cries that Padma shivers.)

- (31) padma bat kanne aŋDaddi yi
 'Padma' 'rice' 'eats' 'crying-while' 'is'

(It is while she is crying that Padma eats her rice.)

Of this assortment of adverbials, those in (10)-(13) can be quite simply accounted for by the rules already stated for adverbial expansion. The adverbial in (14) is an infinitive complement of the type discussed in Chapter 4, and that in (15) is also an infinitive complement, but of the type discussed in Chapter 5, in relation to modal constructions. Adverbials like that in (16) occur in comparative constructions, and it will be suggested in Chapter 11 that they may be derived by the existing rules.

However, adverbials like those in (17)-(31) cannot be as simply derived. In this chapter, I do not attempt to discuss in any detail the exact derivation of all such constructions. Instead, I examine a few of these constructions in detail, and attempt to show that no new rules are required to handle them. The constructions that are examined below are progressive and perfective adverbials

of the type in (17) and (18); agentive adverbials of the type in (19) and (20); and reason adverbials with kiyēlaa (having said), as in (21). I also suggest that the other types of adverbials in (22)-(31) may turn out to be amenable to derivation by the existing rules. The purpose of this chapter is not, therefore, to give a comprehensive account of all types of adverbials in Sinhalese, but rather to make a preliminary investigation of whether such adverbials can be handled by the present set of rules; and also of whether it is necessary to postulate a separate category 'Adverb' in the phrase structure expansion of adverbials.

To begin with, it seems possible to analyse most of the single word 'Adverbs' given above as instances of NP + $\left\{ \begin{array}{c} \underline{Te} \\ \underline{ee} \\ \underline{en} \end{array} \right\}$. Those like hoḥdeTe or hoḥdin (well), ikmēneTe or ikmēnin (fast), hayiyen (loudly or hard) appear with the case suffixes Te or en. Corresponding forms hoḥde (goodness), ikmēne (hurry), hayiye (hardness) may occur as subject or object NPs. Several other commonly used single word adverbials which do not have Te, ee or en case suffixes, appear in sentences like the b sentences below. The fact that such b sentences are synonymous with the corresponding a sentences provides some motivation for setting up a Case Suffix Deletion rule which applies to some commonly used types of Te, ee and en NPs.

- (32) a padma hariyēTē lə jjaayi
'Padma' 'a right extent-to' 'is shy'

b padma hari lə jjaayi
'Padma' 'right' 'is shy'

(Padma is very shy.)

- (33) a padma eccerēTē lə jjaayi
'Padma' 'that extent-to' 'is shy'

b padma eccerē lə jjaayi
'Padma' 'that extent' 'is shy'

(Padma is as shy as that.)

- (34) a padma gederēTē yanəvaa
'Padma' 'her home-to' 'is going'

b padma gederē yanəvaa
'Padma' 'home' 'is going'

(Padma is going home.)

- (35) a padma davəsəkēTē æ ʔDuva
'Padma' 'a day-for' 'cried'

b padma davəsək æ ʔDuva
'Padma' 'a day' 'cried'

(Padma cried for a day.)

- (36) a padma væ Diyen æ ʔDuva
'Padma' 'a greater extent-in' 'cried'

b padma væ Diye æ ʔDuva
'Padma' 'a greater extent' 'cried'

(Padma cried all the more.)

If such a rule can be shown to exist, then the adverbials in

the b sentences can be transformationally derived from the corresponding Te and en NPs in the a sentences. If the rule is constrained to apply obligatorily in certain cases the adverbials in (37) and (38) can also be accounted for.

(37) a *padma huŋgəkəTə læ jjaayi
'Padma' 'a lot-to' 'is shy'

b padma huŋgak læ jjaayi
'Padma' 'a lot' 'is shy'

(Padma is very shy.)

(38) a *padma aDi pahəkəTə usayi
'Padma' 'five feet-to' 'is tall'

b padma aDi pahak usayi
'Padma' 'five feet' 'is tall'

(Padma is five feet tall.)

Though there is no substantial evidence at present for postulating such a rule, if it exists, then a category 'Adverb' is not required in the phrase structure expansion of 'Adv' to account for single adverbials of the type discussed above.

In the case of locative adverbs like metəne (here) and adə (today), such forms can be compared to the underlined locative adverbs in (39)-(41).

(39) kələkbə loku varaayak tiyenəvaa
'in Colombo' 'big' 'a harbour' 'is'

(There is a big harbour in Colombo.)

- (40) mame avurudu hayak nuvərə hiTiyaa
 'I' 'years' 'six' 'in Kandy' 'was'

(I lived in Kandy for six years.)

- (41) padma gedərə innəvaa
 'Padma' 'at home' 'is'

(Padma is at home.)

Locative adverbials like koleḁbe (in Colombo), nuvərə (in Kandy) and gedərə (at home) appear consistently without a locative case suffix ee. (42) demonstrates that not all nouns ending in [ə] appear without this case suffix, for here gaalle (Galle) appears with the locative ee.

- (42) gaallee poDi varaayak tiyenəvaa
 'in Galle' 'small' 'a harbour' 'is'

(There is a small harbour in Galle.)

Some obligatory rule of Case Suffix Deletion appears to operate in (39)-(41). The conditions of such a rule are not clear, but whatever form such a rule takes, it can also account for adverbs like metəne (here) and ade (today).

Single word adverbials like dæn (now) and nitərə (frequently) are more difficult to account for. Historical evidence might suggest that the latter is derived from older forms like niranterəyen, nireturuve (incessantly, frequently), but I will not examine these forms here. The facts above however provide some evidence to suggest that some, if not many, single word adverbials are a form of

$$NP + \left\{ \begin{array}{c} \underline{Te} \\ \underline{ee} \\ \underline{en} \end{array} \right\} .$$

The underlined adverbials in (17) and (18), añDə añDə ("crying-crying") and añDəlaa (having cried), are respectively progressive and perfective adverbials in Sinhalese. As suggested in Chapter 2 (p. 72), it would be possible to generate such adverbials by adding a rule like (43) to the grammar.

$$(43) \quad \text{Adv} \quad \longrightarrow \quad \text{Verb Root} + \left\{ \begin{array}{l} \text{Perfective} \\ \text{Progressive} \end{array} \right\}$$

Apart from the fact that this would add to the complexity of the rule for adverbial expansion, such a rule would run into difficulties in the case of sentences like (44)-(47), in which the perfective and progressive adverbials are themselves part of a larger adverbial constituent containing other items like subject NPs, object NPs, and adverbials.

- (44) padma bat kaalaa añDənevaa
 'Padma' 'rice' 'having eaten' 'is crying'

(Having eaten her rice, Padma is crying.)

- (45) padma ikməneTə bat kakaa añDənevaa
 'Padma' 'fast' 'rice' 'eating-eating' 'is crying'

(Padma is crying while eating her rice fast.)

- (46) sunil padma dæ kə dæ kə maave konittənevaa
 'Sunil' 'Padma' 'seeing-seeing' 'me' 'is pinching'

(Sunil is pinching me in front of Padma's very eyes.)

- (47) padma kaalaat bat ituruvunaa
 'Padma' 'having eaten-also' 'rice' 'remained'

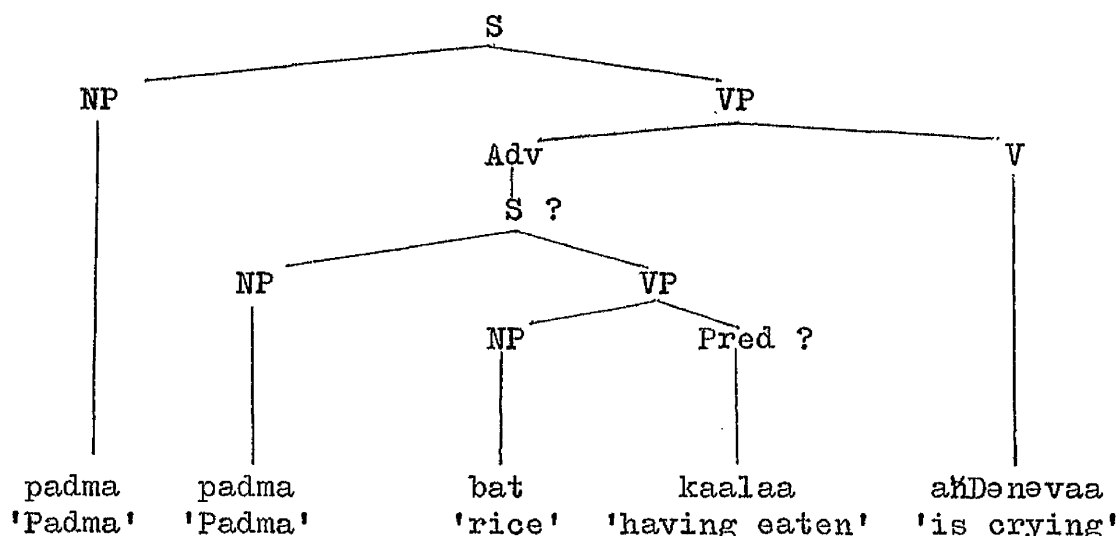
(Even after Padma had eaten, there was rice left over.)

In such sentences, the underlined adverbial constituent is

understood as containing a further constituent in underlying structure which is identical with a constituent in the matrix sentence. In (44) and (45) this constituent is understood to be a subject NP padma; in (46), a NP complement sunil maave konittenevaa (Sunil pinching me), which serves as object NP of the adverbial; and in (47), an object NP bat (rice).

This means that the deep structure of (44) must be something like (48). Similar deep structures would have to be set up for sentences with progressive adverbials.

(48)

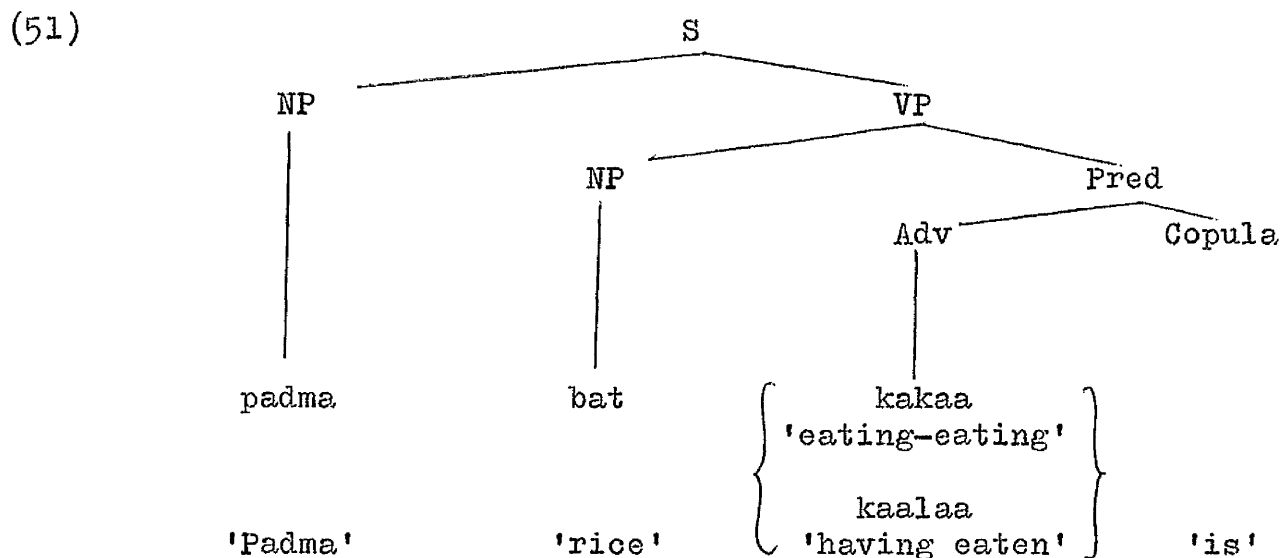


kakaa ("eating-eating") and kaalaa (having eaten) cannot appear without a copula in predicate position in independent sentences, and hence they cannot be analysed as main verbs. Consequently, they must be analysed as adverbial predicates. Now, there exist copular sentences like (49) and (50), in which progressive and perfective

adverbials appear in predicate position with some form of copula.

- (49) padma bat kakaa { ye }
 'Padma' 'rice' 'eating-eating' { innevaa }
 'is'
- (Padma is eating her rice.)
- (50) padma bat kaalaa { (ye) }
 'Padma' 'rice' 'having eaten' { innevaa }
 'is' { tiyenevaa }
- (Padma has eaten her rice.)

It is possible to postulate a deep structure like (51) for both sentences, and claim that the predicative adverbial is generated by a rule like (43). It could then perhaps be argued that the embedded sentence in the adverbial in (48) is derived from a structure like (51) plus some adverbialising element.



Though this is a possible source for progressive and perfective adverbials, alternative analyses can be made. First, note

that the negative sentences (52) and (53) have no grammatical positive counterparts (54) and (55).¹

- (52) padma aḥḍanne nāe tuve innēvaa
'Padma' 'is crying' NEG 'ly' 'is'

(Padma is refraining from crying.)

- (53) padma æḥḍuve nāe tuve unnaa
'Padma' 'cried' NEG 'ly' 'was'

(Padma refrained from crying.)

- (54) *padma aḥḍenēvaa ve innēvaa
'Padma' 'is crying' 'ly' 'is'

(Padma is crying.)

- (55) *padma æḥḍuvaa ve unnaa
'Padma' 'was crying' 'ly' 'was'

(Padma was crying.)

The same ve ("ly") suffix that appears in (52) and (53) shows up again attached to the modal adjectives in (56).

- (56) padma yanne oonee ve / puluvan ve / bæru ve
'Padma' 'to go' 'necessary' 'ly' 'possible' 'ly' 'impossible' 'ly'
innēvaa
'is'

(Padma is in a state of wanting / being able / being unable to go, i.e. Padma wants / is able / is unable to go.)

Second, notice that all these phrases with ve suffixes may

1. In all the examples below, the suffix ve is glossed as 'ly'. In the following discussion I argue that ve is a suffix attached to sentences in Sinhalese in order to derive manner adverbials. Although 'ly' in English is also typically associated with manner adverbials, it can be seen that the distribution of these suffixes in the two languages differs quite radically. Hence the gloss given here is inaccurate, though it is the closest available.

be given as answers to the question (57).

- (57) padma kohomə / koyi hæTiyəTə / koyi vidihəTə
 'Padma' 'how' 'what' 'way-to' 'what' 'way-to'
 innəvaa də
 'is' Q

(How, in what manner is Padma (waiting)?)

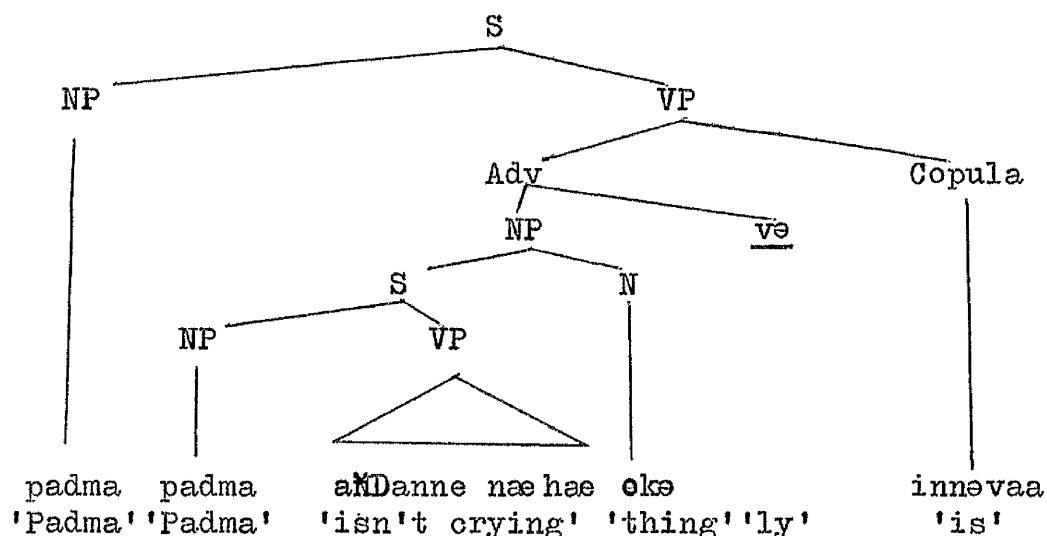
There are only two other categories of adverbials that may be given as answers to (57). One is a set of manner adverbials like tarahen (angrily or in anger), saniipen (in good health). The other consists of progressive and perfective adverbials. Thus, (58) groups together a set of grammatical answers to (57).

- (58) a aħDanne næ tuvə (without crying)
 b yannə ooneeve (wanting to go)
 c yannə puluvanvə (able to go)
 d yannə bæ ruvə (unable to go)
 e tarahen (angrily or in anger)
 f saniipen (in good health)
 g aħDə aħDə ("crying-crying")
 h aħDəlaa (having cried)

a-d appear with the suffix və, and e and f with the usual en case suffix. g and h are the progressive and perfective forms of the verb root aħDə (cry). The fact that a-h all constitute grammatical answers to (57) suggests that they are all a type of manner adverbial. This indicates that a sentence like (52) is derived from an underlying structure like (59), where və is a suffix attached to sentences in

order to derive manner adverbials.

(59)



This ve suffix appears in Colloquial Sinhalese only after the negative particle, or after the positive and negative modal adjectives. It does not appear following nominal or other adjectival predicates, or after positive verbs. Now, it is significant that progressive and perfective forms have no negative counterparts. Hence, the ungrammaticality of (60) and (61).

- (60) *padma aħDə aħDə næ tuve innēvaa
'Padma' 'crying-crying' NEG 'ly' 'is'

(Padma is in a state of not "crying-crying", i.e. Padma is not crying.)

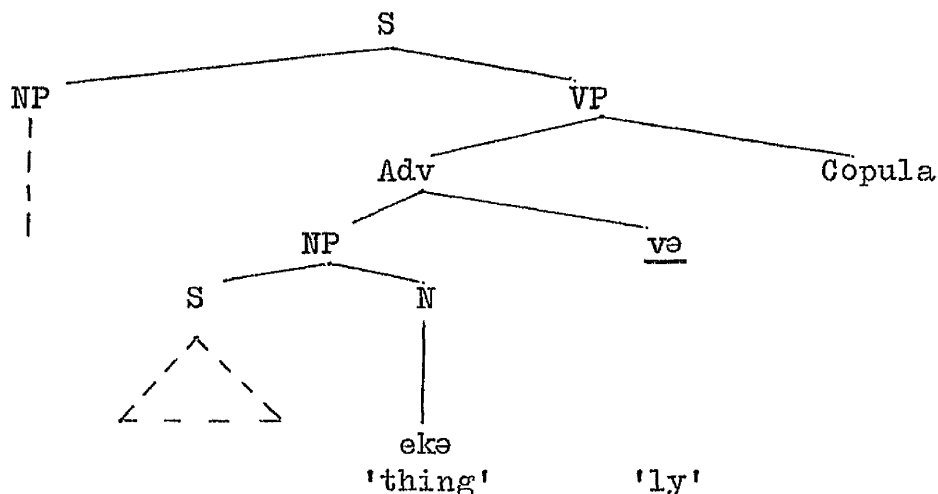
- (61) *padma aħDəlaa næ tuve innēvaa
'Padma' 'having cried' NEG 'ly' 'is'

(Padma is in a state of not having cried, i.e. Padma has not cried.)

This complementarity between negative verbs and manner

adverbials with və on the one hand, and positive verbs and manner adverbials with progressive and perfective forms on the other, seems to suggest that sentences with progressive and perfective adverbials might be derived from underlying structures like (62), in which the embedded sentences contain positive main verbs, and where ' V + və ' is spelt out by the phonological component as either a progressive or perfective adverbial.

(62)



If this is so, what kind of embedded sentences underlie progressive and perfective adverbials respectively? Progressive adverbials may appear with either a Non-Past or Past tense copula, as in (63) and (64). In (63), the progressive adverbial denotes an action occurring continuously in non-past time; and in (64), an action occurring continuously in past time.

(63) padma aṅDe aṅDe innəvaa
 'Padma' 'crying-crying' 'is'

(Padma is crying.)

- (64) padma aṁDe aṁDe unnaa
'Padma' 'crying-crying' 'was'

(Padma was crying.)

This means that tense in the embedded sentence is understood as identical to tense in the matrix sentence. For (63) therefore, the embedded sentence in (62) should have a Non-Past main verb aṁDeṇevaa (cries). This implies that such sentences with progressive adverbials can be derived when any positive, non-modal sentence with a Non-Past predicate is inserted in (62). There are however, many such sentences which give the wrong result if inserted. The progressive adverbials in (67)-(72) below are derived from such predicates, but these are ungrammatical.² On the other hand, such a constraint correctly allows (63), and (65) and (66).

- (65) sunilTe hinaa yævi yævi tiyenəvaa
'Sunil-to' 'laughing happening-happening' 'is'

(Sunil is involitively "laughing-laughing", i.e. Sunil keeps bursting into giggles.)

- (66) padma sunilve dæke dæke innevaa
'Padma' 'Sunil' 'seeing-seeing' 'is'

(Padma is "seeing-seeing" Sunil, i.e. Padma is always seeing Sunil.)

- (67) *padma læjjaa læjjaa innevaa
'Padma' 'shy-shy' 'is'

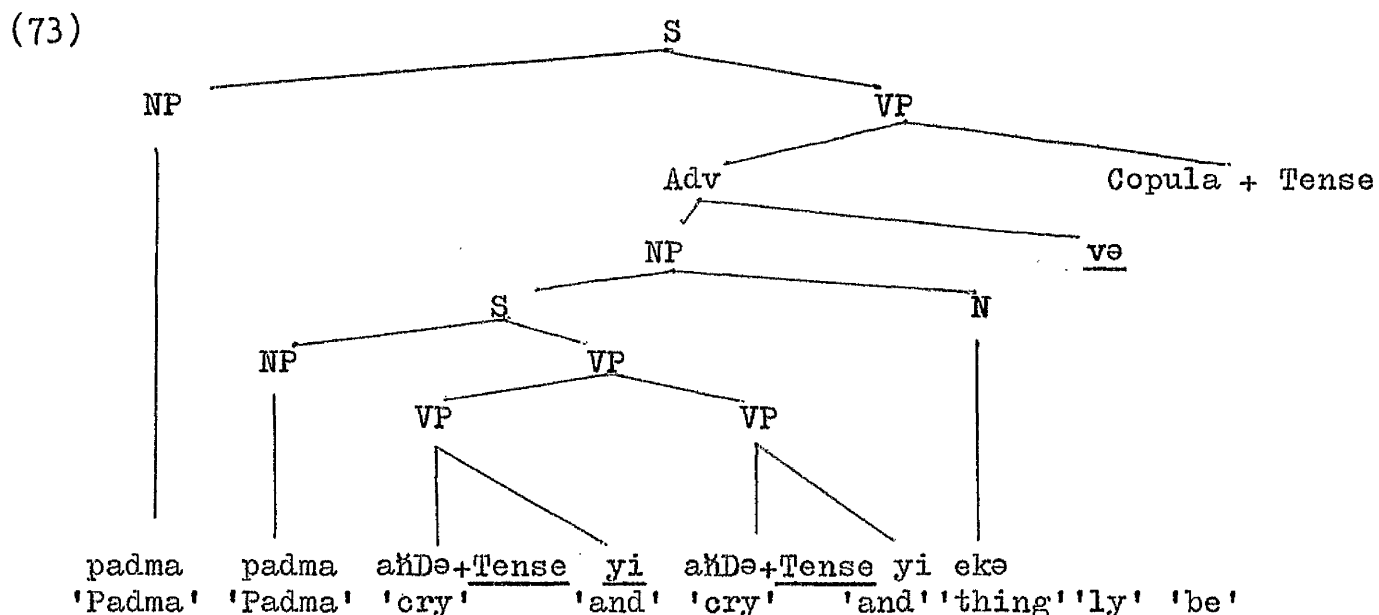
2. As noted in Chapter 9 for similar examples, some of the sentences marked ungrammatical are grammatical under other readings, e.g. (69) is grammatical when biṁde (smash) is taken to mean 'break bit by bit' rather than 'smash in one go' etc. These interpretations however are not relevant here.

- (68) *sunil horek horek innəvaa
'Sunil' 'a thief-a thief' 'is'
- (69) *sunil piŋgaanə biŋdə biŋdə innəvaa
'Sunil' 'the plate' 'smashing-smashing' 'is'
- (*Sunil is "smashing-smashing" the plate, i.e. Sunil is continuously smashing the plate.)
- (70) *padma sunilvə kasaadə bæŋdə bæŋdə innəvaa
'Padma' 'Sunil' 'marrying-marrying' 'is'
- (*Padma is "marrying-marrying" Sunil, i.e. Padma is continuously marrying Sunil.)
- (71) *meesee tibi tibi tiyenəvaa
'the table' 'being-being' 'is'
- (*The table is "being-being" there, i.e. The table is continuously being there.)
- (72) *padma ættə dænə dænə innəvaa
'Padma' 'the truth' 'knowing-knowing' 'is'
- (*Padma is "knowing-knowing" the truth, i.e. Padma is continuously knowing the truth.)

In Chapter 9, other sets of sentences are considered which display exactly the same paradigm of grammaticality as (63), and (65)-(72). The first of these sets are iterative conjunctions. The facts discussed above indicate that sentences with progressives might be derived from deep structures like (62) when the embedded sentence contains positive, non-modal predicates, but that further constraints operate to disallow sentences like (67)-(72). The same constraints operate in iterative conjunctions. I suggest therefore that progressives are derived from deep structures like (62) when the embedded sentence is an iterative conjunction. In this case, sentences like (67)-(72) are automatically blocked, since the

corresponding embedded sentences are themselves ungrammatical.

It seems possible therefore, that (63) and (64) are derived from an underlying structure like (73), in which Tense in the embedded sentence is identical with Tense in the matrix sentence.



Equi-NP Deletion applies to the embedded sentence in (73) to delete padma, and then eke Deletion deletes the pronominal head of the noun phrase in the adverbial constituent. The phonological component would then need a rule like (74).

(74) Verb Root + Tense + yi + Verb Root + Tense + yi + ve
⇒ Progressive

Assuming for the present that we can account in this way for progressive adverbials, perfectives have still to be accounted

for. Several recent studies have discussed the possibility of the English perfect being derived from an embedded past, e.g. Bach (1967), B.J. Darden (1968), and McCawley (1971). I shall examine here whether any arguments can be presented for deriving perfective adverbials in Sinhalese from embedded pasts.

Such an analysis would mean that the underlying structure of sentences like (75) and (76), which contain predicative perfectives, would look something like (77).

- (75) padma aṁDēlaa (yē)
'Padma' 'having cried' 'is'

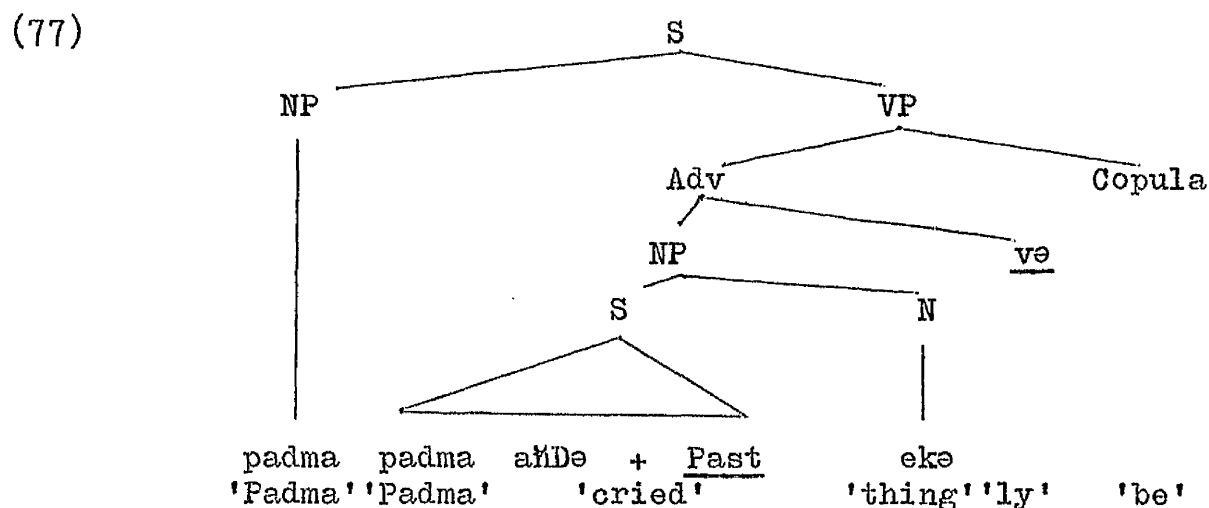
(Padma has cried.)

- (76) a padma aṁDēlaa innēvaa
'Padma' 'having cried' 'is'

(Padma has cried.)

- b padma aṁDēlaa unnaa
'Padma' 'having cried' 'was'

(Padma had cried.)



There is also another type of perfective sentence like (78).

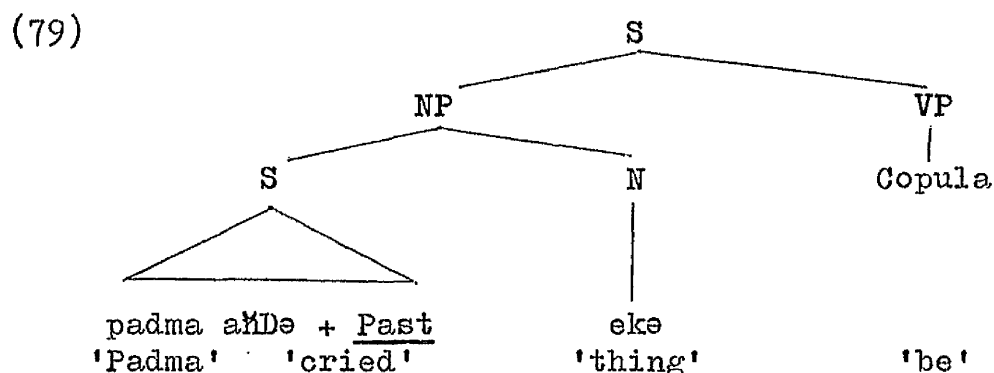
- (78) a padma aMDelaa tiyenəvaa
 'Padma' 'having cried' 'is'

(Padma has cried.)

- b padma aMDelaa tibunaa
 'Padma' 'having cried' 'was'

(Padma had cried.)

In (76), some form of in, which is the copula that appears with animate subject NPs, occurs. In (78), tiye, which appears only with inanimate subject NPs, occurs. This suggests a deep structure like (79) for (78).



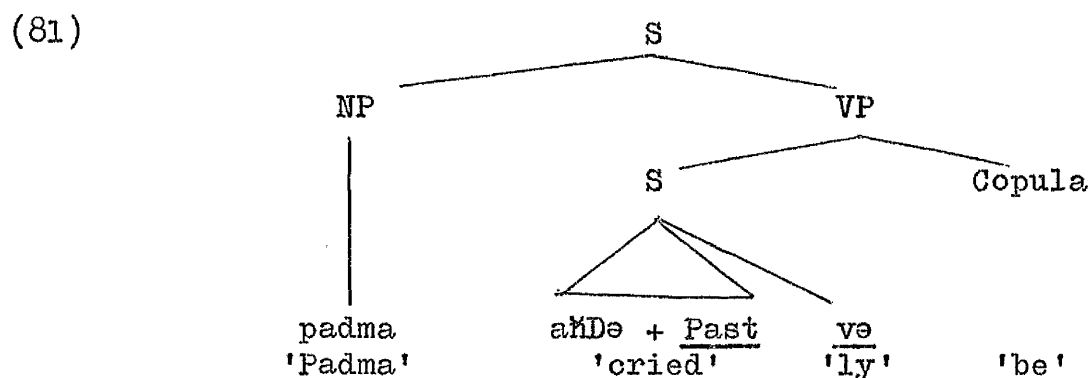
Since it has been suggested that ve is some sort of adverbialising suffix, and since it is also being suggested that perfectives may be derived from instances of 'Verb Root + Past + ve', a problem arises in deriving perfectives in deep structures like (79).

(80) demonstrates that Conjunction Reduction can apply to conjoined structures in which (78a) is the first conjunct, and the second is a sentence with padma as subject NP.

- (80) padma aṁḍelaa tiyenəvaa yi bat kanəvaa yi
 'Padma' 'has cried' 'and' 'rice' 'is eating' 'and'

(Padma has cried and is eating her rice.)

This means that ekə Replacement must apply to a deep structure like (79), raising padma out of the embedded sentence, and substituting it for the pronominal head ekə (thing) of the subject NP. In this case the rest of the embedded sentence is then attached to VP as a sister constituent of the Copula. It can now be surmised that ve is then attached to this sentence as an adverbialising suffix. (81) would then be derived.



After Equi-NP Deletion, and ekə Deletion apply to (77), it would now be possible to set up a common phonological rule like (82), which would operate on both (77) and (81) to derive the perfective adverbial aṁḍelaa (having cried).

- (82) Verb Root + Past + ve \Longrightarrow Perfective

It can be seen below that there is some slight evidence in favour of such an analysis of perfectives in Sinhalese. It was shown in Chapter 2 (p. 56 (30)) that the time adverbials iiyee (yesterday)

and pæyəkəTə uDədi (an hour ago) could occur with Past tense, but not Non-Past tense verbs; and that the time adverbial tavəmə (yet) could occur with Non-Past tense, but not Past tense verbs. Now, the paradigm of time adverbials that can be inserted in (76a) is the same as for Non-Past tense verbs, while the paradigm for (78a) is the same as for Past tense verbs. Since both (83) and (84) take the same set of time adverbials as Non-Past verbs, the difference above cannot be attributed to any idiosyncrasy of the tiye Copula.

- (83) padma innəvaa
 'Padma' 'is'

(Padma is here, present.)

- (84) meesee tiyenəvaa
 'the table' 'is'

(The table is there.)

This difference must therefore depend on time adverbials in (76a) modifying innəvaa (is), whereas time adverbials in (78a) modify aṁDəlaa (having cried). If this is so, the paradigm of time adverbials that can occur with aṁDəlaa is the same as for Past tense verbs. Though this does not necessarily constitute evidence that aṁDəlaa must be derived from an underlying Past tense, it does mean that it cannot be derived from an underlying Non-Past tense.

Again, when the corresponding negative sentences are substituted for the embedded sentences in deep structures like (77) and (79), ungrammatical sentences like (85) and (86) are generated.

- (85) *padma æ hDuve næ tuvə innəvaa
'Padma' 'cried' NEG 'ly' 'is'

(*Padma is without having cried.)

- (86) *padma æ hDuve næ tuvə tiyenəvaa
'Padma' 'cried' NEG 'ly' 'is'

(*Padma is without having cried.)

However, when other negative sentences are inserted in such deep structures, grammatical sentences like (52) and (53), repeated here for convenience, and (87) result.

- (52) padma a hDanne næ tuvə innəvaa
'Padma' 'is crying' NEG 'ly' 'is'

(Padma is refraining from crying.)

- (53) padma æ hDuve næ tuvə unnaa
'Padma' 'cried' NEG 'ly' 'was'

(Padma refrained from crying.)

- (87) padma a hDanne næ tuvə unnaa
'Padma' 'is crying' NEG 'ly' 'was'

(Padma refrained from crying.)

In (52), the verbs in both embedded and matrix sentences are Non-Past in tense; in (53), they are both Past. In both, the time reference of the verbs in the embedded and matrix sentences is understood to be identical. In (87), the verbs of the two sentences differ in tense. However, (87) is completely synonymous with (53), and the time reference of the verbs of the embedded and matrix sentences is understood (as in (53)) as being identical. It appears therefore, that the time reference of the verb in the embedded sentence in such constructions is always understood as identical to

that of the verb in the matrix sentence, an optional rule allowing Non-Past and Past variants like aḥDanne (is crying-Incomplete) and æ ḥDuve (cried-Incomplete) to appear in surface structure when the verb of the matrix sentence is Past. Such a rule accounts for the synonymy of (53) and (87), and derives them from identical deep structures.

(85) and (86) however are ungrammatical, and the grammar apparently cannot use deep structures of the sort that must underlie them to express the priority of the action denoted by the embedded sentence. This sense of priority can however be conveyed in sentences like (88).

- (88) padma $\left\{ \begin{array}{l} \text{aḥDanne} \\ \text{'is crying'} \end{array} \right\}$ næ tuve iḥdēlaa tiyenēvaa
 'Padma' $\left\{ \begin{array}{l} \text{æ ḥDuve} \\ \text{'cried'} \end{array} \right\}$ NEG 'ly' 'having been' 'is'

(Padma has been without crying, i.e. Padma has not cried.)

Here the perfective form of the in Copula, iḥdēlaa (having been), occurs in the embedded sentence, making it possible to express a sense of priority. It seems therefore that the only mechanism available in such constructions for expressing the pastness of an action is the use of the perfective. This again is evidence of, at least, a very close relationship between past tense verbs and perfective adverbials. It is also significant that the Non-Past and Past tense variants aḥDanne (is crying-Incomplete) and æ ḥDuve (cried-Incomplete) may occur in (88) with no consequent change in meaning.

It was shown for (53) and (87) that the identical sort of variation is possible where the main verb of the higher sentence is a Past tense verb. This again suggests that iḥḍelaa (having been) in (88) is very probably derived from a deep structure occurrence of unnaa (was).

Hence, there seems to be some evidence in favour of deriving perfectives in Sinhalese from underlying Past tense verbs, and progressives from the verbs of underlying iterative conjunctions. If such analyses can be conclusively shown to be correct, then it would not be necessary to add a rule like (43) to the existing rule for adverbial expansion. For the analysis suggested, a rule forming manner adverbials by attaching a suffix və ("ly") is required. Such a rule however is independently required to deal with the corresponding embedded negative and modal sentences. In addition, two rules like (74) and (82) are required in the phonological component.

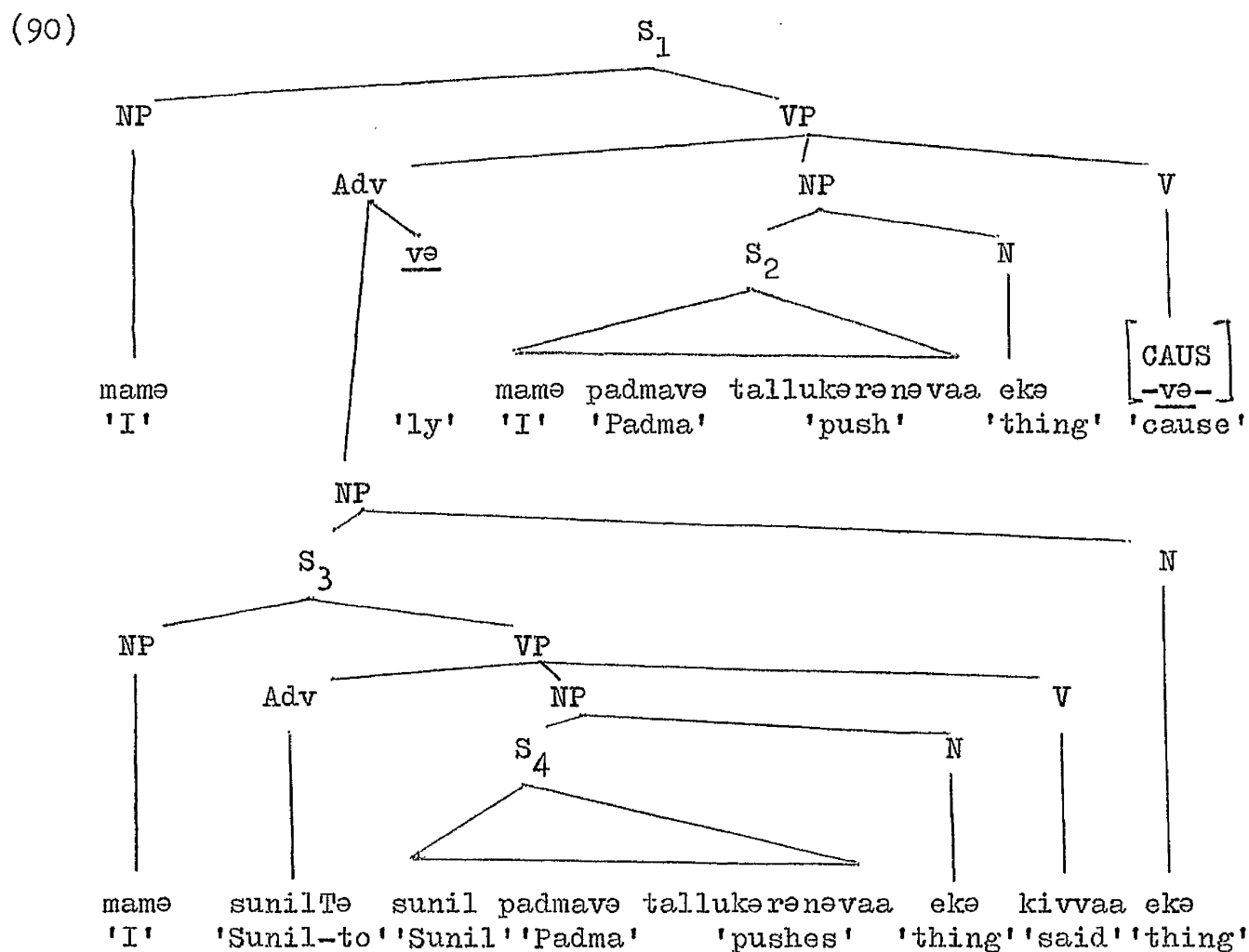
I turn below to agentive adverbials of the type illustrated in (19) and (20). In Chapter 7, it was suggested that agentive phrases like sunilTə kiyəlaa (by Sunil) and sunil lavvaa (by Sunil) were derived from more complex underlying structures than NP + Postposition. Assuming, for the moment, an analysis of perfectives like that given above, it is possible to outline what such complex structures might look like.

In Chapter 4, a verb root kiyə (order, say to do, tell),

belonging to the class of verbs of ordering, was discussed. kiyəlaa (having told) is the perfective adverbial form corresponding to this root. In a causative construction like (89) I cause an action to be done by Sunil. Presumably, one method of getting the action done is by telling Sunil to do it. What are the consequences if a deep structure like (90) is set up for (89)?

- (89) mamə sunilTə kiyəlaa padmavə tallu kərəvenəvaa
 'I' 'Sunil-to' 'having told' 'Padma' 'push' CAUSE

(I get Padma pushed by asking Sunil to do it.)



The structural description of Equi-NP Deletion is met in both S_4 and S_2 , and hence the respective subject NPs, sunil and mame (I) must be obligatorily deleted. What then remains of both S_4 and S_2 is the identical padmave tallu kereṇevaa (push Padma). If some S-Deletion rule operated to delete a repeated occurrence of a sentence, then what remains of S_4 could be deleted under identity with S_2 . Lakoff (1966) discusses the operation of such a rule under similar conditions in English.³ Some such rule is needed in any case in Sinhalese to account for sentences like (46). Lakoff's discussion of the rule in English demonstrates that it is not deep structure identity that is required in such cases. I assume rather than justify such a rule here, and hence the validity of the suggested analysis depends on evidence being found for the rule in Sinhalese. Assuming this however, once ekə Deletion as well applies to the object NP of S_3 , this noun phrase is reduced to zero. S_3 meets the structural description of Equi-NP Deletion and hence its subject NP mame (I) must be deleted. ekə Deletion then applies to the noun phrase embedded in the adverbial in S_1 , and the rules of perfective formation apply to this adverbial to derive sunilTə kiyəlaa (having told Sunil). The rules of causative formation (see Ch. 7) then apply as usual to S_1 to derive a surface structure (89).

If S-Deletion does not apply to S_4 , after Equi-NP Deletion

3. G. Lakoff (1966), pp. 63-65, and 67-68.

and ekə Deletion, the Infinitive rule will apply obligatorily to convert its main verb to its infinitive form tallu kəranne (to push). The process of derivation will then continue in the same way as outlined above, resulting in the grammatical (91).

- (91) *mamə sunilTə padmavə tallu kəranne kiyəlaa*
 'I' 'Sunil-to' 'Padma' 'to push' 'having told'
 padmavə tallu kərevənevaa
 'Padma' 'push' CAUSE

(I get Padma pushed by asking Sunil to push her.)

Hence, if a deep structure like (90) is set up, only an additional rule of S-Deletion is required to derive (89). The fact that it can generate a grammatical output like (91) by the usual processes provides additional support for its validity as a deep structure.

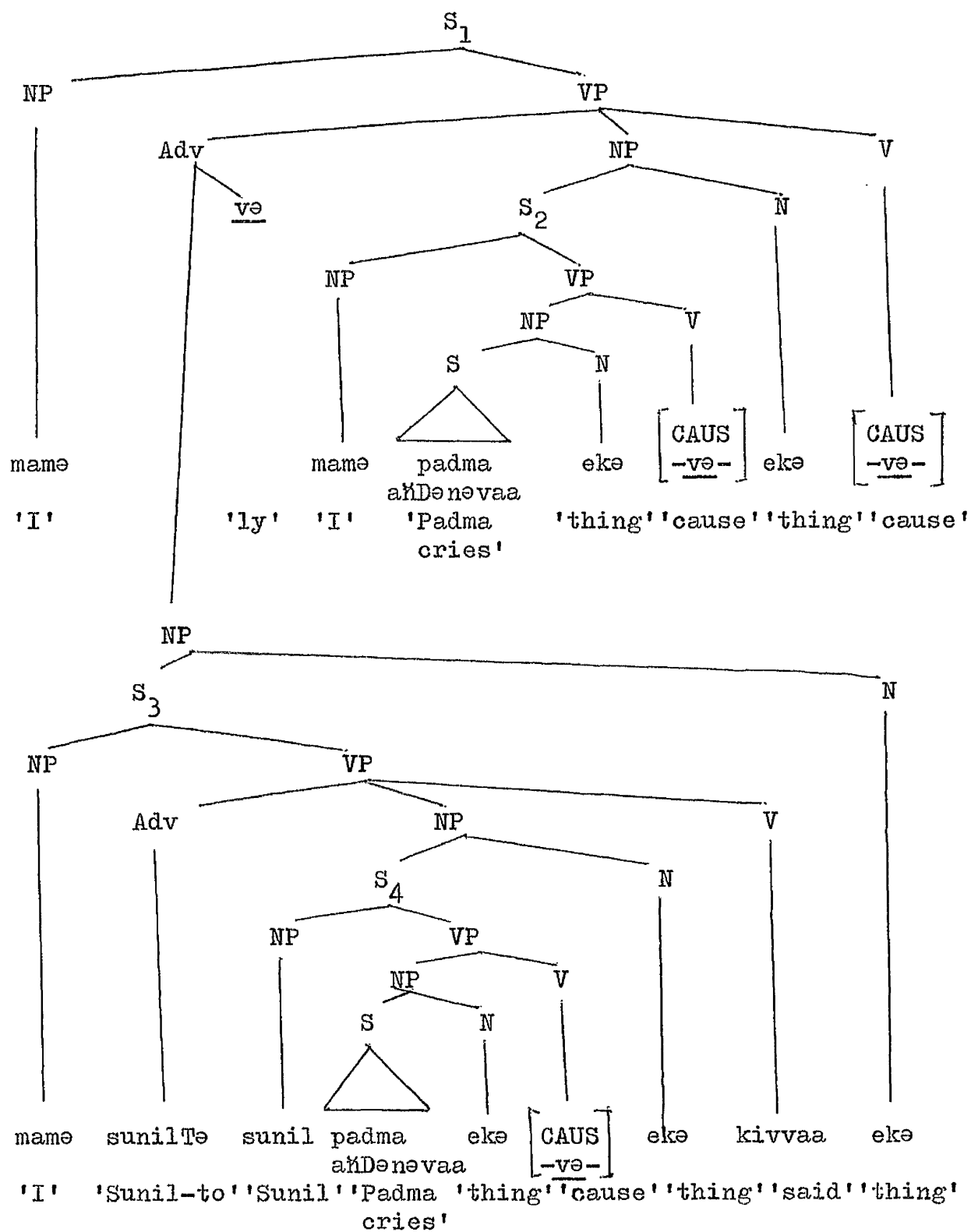
Can a deep structure like (93) be then postulated for

(92)?

- (92) *mamə sunilTə kiyəlaa padmavə aḵDevənevaa*
 'I' 'Sunil-to' 'having told' 'Padma' 'cries' CAUSE

(I get Sunil to make Padma cry.)

(93)



The usual processes of causative formation apply to both

S_2 and S_4 to yield respectively mamə padmavə aḥDevenəvaa (I make Padma cry) and sunil padmavə aḥDevenəvaa (Sunil makes Padma cry). Equi-NP Deletion then obligatorily deletes the subject NPs in both S_2 and S_4 . After this S-Deletion applies as outlined above to delete S_4 . Again as outlined above, an agentive adverbial sunilTə kiyəlaa (having told Sunil) is then derived. After causative formation applies to S_1 , (92) results.

This asserts however that the causative main verb of S_2 , aḥDevenəvaa (cause to cry), can be raised into a further abstract causative verb in S_1 to derive again the same form aḥDevenəvaa. At present, I know no other way of handling the data. It is also true that if S-Deletion does not apply to S_4 after Equi-NP Deletion, the Infinitive rule and other usual rules apply to derive the grammatical (94).

- (94) mamə sunilTə padmavə aḥDevanne kiyəlaa
 'I' 'Sunil-to' 'Padma' 'to cry-CAUSE' 'having told'
 padmavə aḥDevenəvaa
 'Padma' 'cry' CAUSE

(I make Padma cry by asking Sunil to make her cry.)

The fact that (93) can generate a grammatical output like (94) by the usual rules provides support for its validity as a deep structure. In contrast to (91), the adverbial constituent in (94) contains a causative infinitive aḥDevanne (to make cry). This confirms that S_3 must contain only one embedded sentence in (90), but two in (93). Hence if S-Deletion is to operate as suggested, S_2 must

be a simple sentence in (90) but a complex causative construction in (93).

In Chapter 7 reference was also made to sentences with recursive occurrences of Tə kiyəlaa agentive adverbials (see p. 216 (16)). An analysis like that suggested above allows for multiple embedding, and hence is capable of handling such cases of recursion. The other types of agentive adverbials mentioned in Chapter 7 (p. 215 (12)-(15)), in which perfective forms of other verbs appear, can also be handled similarly.

In the case of lavvaa agentive adverbials like that in (20), minor complications arise. The form lavvaa itself does not occur anywhere else in Colloquial Sinhalese. The corresponding form in Literary Sinhalese is lavaa. lavaa too occurs only in agentive adverbials in contemporary Literary Sinhalese. In earlier Sinhalese texts however la (put) is a common verb root, and has a regular perfective form lavaa (having put). It can therefore be argued that a phonological variant lavvaa developed which was then carried over into modern Colloquial Sinhalese as an idiom, though the verb root la itself dropped out of use. Hence lavvaa very probably need not be regarded as a special agentive postposition, agentive adverbials in which it appears being amenable to the same type of analysis as that suggested above for other such forms.

Thus it seems that agentive adverbials like those in (19) and (20), and all others of the same type can be generated by the

On the first cycle, S_3 , mame yanəvaa (I am going), is derived. On cycle 2, Complementiser Placement b applies as is usual where the main verb of the matrix sentence is kiye (say) to attach (yi) to the embedded sentence, and then ekə Deletion occurs. Equi-NP Deletion deletes the subject NP of S_2 , padma. On cycle 3, ekə Deletion applies to the noun phrase in the adverbial and then perfective formation converts kivvaa (said) + ve' to the perfective form kiyəlaa (having said). (95) is the resulting surface structure. Thus such adverbials of reason can be accounted for quite simply by the rules of perfective formation.

Of the other types of adverbials listed in (22)-(31), a large number consist of some word or particle like gaman ((22) and (23)), koTə ((24) and (25)), kal (26), hindaa (27), ot (28) etc. preceded by a Non-Past or Past Modifier form of a verb, e.g. aḥDəne (cry+Non-Past-Modifier), aeḥDuvə (cry+Past-Modifier). In other sentences, the adverbial may contain other constituents like object NPs and other adverbials followed by the Modifier form of a verb. (97) illustrates this.

- (97) padma gaha yaTə bat kane gaman aḥDənevaa
 'Padma' 'the tree' 'under' 'rice' 'eating' 'time' 'is crying'

(Padma is crying while eating her rice under the tree.)

The internal structure of such adverbials, and the fact that the Modifier form of verbs appears in them, suggests that they consist of a noun head plus an embedded sentence. In (97), the subject NP of

the embedded sentence could be deleted under identity with the subject NP of the matrix sentence. In this case, the words and particles listed above would need to be analysed as nouns, and the embedded sentences attached to them either as relative phrases or NP complements. Words like gaman and kal do in fact occur independently with meanings like 'occasion' and 'time'. The meanings attached to them in the adverbials in question are slightly different, e.g. 'while', 'as soon as', 'until' etc., but they are close enough to speculate, as in the case of lavvaa, that such nouns are now used with a fixed idiomatic meaning. Particles like koṭe, hindaa and ot are more problematic. However the fact that all these adverbials contain a head word or particle preceded by a phrase containing the Modifier form of a verb, and displaying the internal structure of a sentence, is significant.

In (29) and (30), the same facts hold true, except that the verb is in its usual form as in vaa complements. In (31), the verb root aṇDe (cry) occurs with the additional locative suffix di which usually occurs after a locative case suffix in nouns, e.g. in (98):

- (98) padma iskoolē di aṇDeṇevaa
 'Padma' 'school-in-di' 'cries'

(Padma cries in school.)

The presence of this suffix in (31) seems to indicate the presence of some noun head in underlying structure, perhaps a pronoun later deleted by ekə Deletion.

Summarising, it appears to be possible to generate a large number of adverbials in Sinhalese by means of a phrase structure rule like (99).

$$(99) \quad \text{Adv} \longrightarrow \left\{ \begin{array}{l} \text{NP} + \left\{ \begin{array}{c} \underline{\text{Te}} \\ \underline{\text{ee}} \\ \underline{\text{en}} \end{array} \right\} \\ \text{NP} + \text{Postposition} \end{array} \right\}$$

At first sight, it seems that there are a large number of other types which require special rules. In Chapter 2, the phrase structure rule for adverbial expansion includes a category 'Adverb'. It is shown here that a number of single word adverbials can be derived without setting up such a category. For perfective and progressive adverbials, (43) outlines what a special rule to generate these might possibly look like. Some evidence is presented however to show that there may be reason to claim that progressives and perfectives are derived from embedded main verbs. In the case of agentive adverbials in causative constructions, and one type of reason adverbial, it is shown that assuming the analysis of perfectives given above, such constructions can be derived quite simply by the existing rules. Several other classes of adverbials are not discussed in any detail. However it seems worth investigating the possibility of such constructions being derived from embedded sentences attached to noun heads as relative phrases or NP complements.

CHAPTER 11

COMPARATIVE CONSTRUCTIONS

This chapter discusses certain types of comparative constructions in Sinhalese. In the earlier chapters I outlined a possible set of phrase structure rules for Sinhalese, and discussed transformational rules that were necessary to derive various types of simple and complex sentences. Comparative constructions are a rather different type of construction to any of those discussed earlier. This chapter examines how far the rules already formulated are adequate for handling the types of comparative sentences discussed here. Only a tentative analysis of such constructions is attempted, but if this analysis can be validated, the rules already formulated, together with an additional rule of Comparative Reduction, will suffice to derive these.

Sentences like (1) and (2) in Sinhalese contain comparative constructions.

- (1) padma sunilTə væDiye aṁDenəvaa
 'Padma' 'Sunil-to' 'more' 'is crying'

(Padma is crying more than Sunil.)

- (2) padma sunilTə væDiye læjjaayi
 'Padma' 'Sunil-to' 'more' 'is shy'

(Padma is shyer than Sunil.)

As noted by R.B. Lees for similar examples in English,¹ sentences corresponding to (1) and (2) in which padma is compared to meesee (table), and not sunil, are ungrammatical.

- (3) *padma meeseeTə væDiye aŋDənevaa
'Padma' 'the table-to' 'more' 'is crying'

(*Padma is crying more than the table.)

- (4) *padma meeseeTə væDiye læjjaayi
'Padma' 'the table-to' 'more' 'is shy'

(*Padma is shyer than the table.)

In the ungrammatical (5) and (6), the cooccurrence restrictions of aŋDənevaa (is crying) and læjjaai (shy) prevent them from appearing with a [-Human] subject NP.

- (5) *meesee aŋDənevaa
'the table' 'is crying'

(*The table is crying.)

- (6) *meesee læjjaayi
'the table' 'is shy'

(*The table is shy.)

meesee (table) in (3) and (4) seems subject to the same type of restrictions as in (5) and (6). If it is postulated that the deep structures underlying (3) and (4) contain embedded sentences like (5) and (6), then a single phenomenon can be used to account for the similarity of the restrictions meesee (table) is subject to in both sets of sentences, i.e. the cooccurrence restrictions of aŋDənevaa (is crying) and læjjaai (shy).

1. R.B. Lees (1961), pp. 172-173.

This means postulating that (3) is derived from the corresponding ungrammatical (7), and (1) from the corresponding grammatical (8).

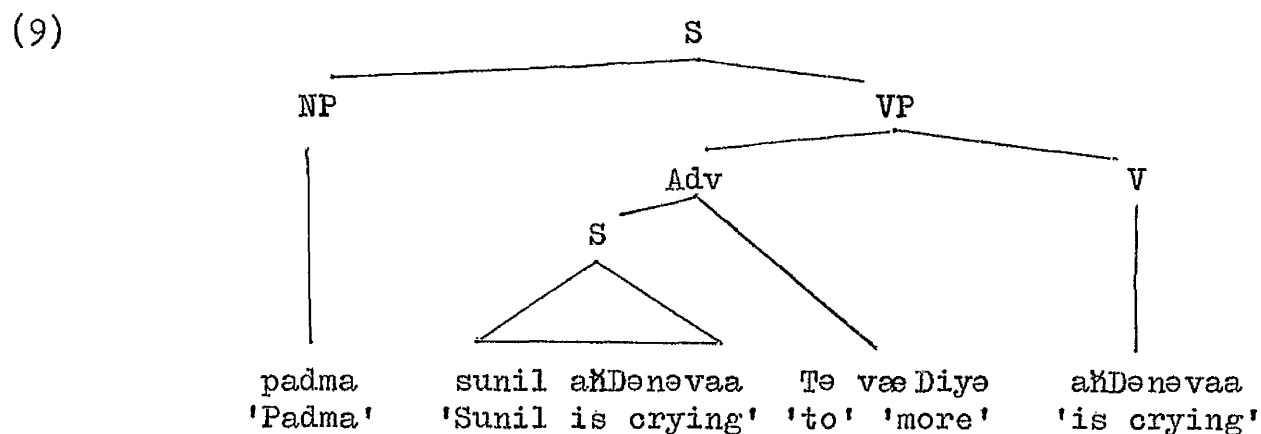
- (7) *padma meesee aḥDenevaaTə væDiye aḥDenevaa
'Padma' 'the table' 'is crying-to' 'more' 'is crying'

(*Padma is crying more than the table is crying.)

- (8) padma sunil aḥDenevaaTə væDiye aḥDenevaa
'Padma' 'Sunil' 'is crying-to' 'more' 'is crying'

(Padma is crying more than Sunil is (crying).)

That (8) is, in fact, a grammatical sentence which is synonymous to (1) seems to validate such a claim. This means that an underlying structure something like (9) could be set up for both (1) and (8).

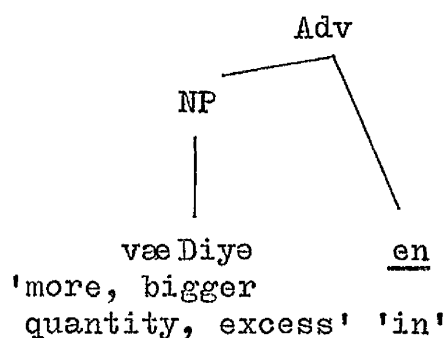


(8) can be derived from (9), and then some form of Comparative Reduction rules must apply to derive (1). At present it seems as if this should be some sort of abbreviatory device deleting any repeated items in the embedded sentence. With such a device,

añDenəvaa (is crying) can be deleted in the embedded sentence in (9), thus allowing Tə vœDiye (more than) to be attached to the remaining portion of the embedded sentence, sunil.

It is worth examining the unlabelled element Tə vœDiye (more than) further. There seems no reason to consider Tə any different to the usual case suffix Tə, and yet, given an underlying structure (9), no explanation can be found for its association with vœDiye (more). vœDiye itself, can be replaced in all the grammatical sentences above by a variant vœDiyen (in greater quantity). It can be suggested that vœDiyen is an en NP, and therefore generated by the rule of adverbial expansion discussed in Chapter 10. This means that vœDiyen can be assigned an analysis like (10).

(10)

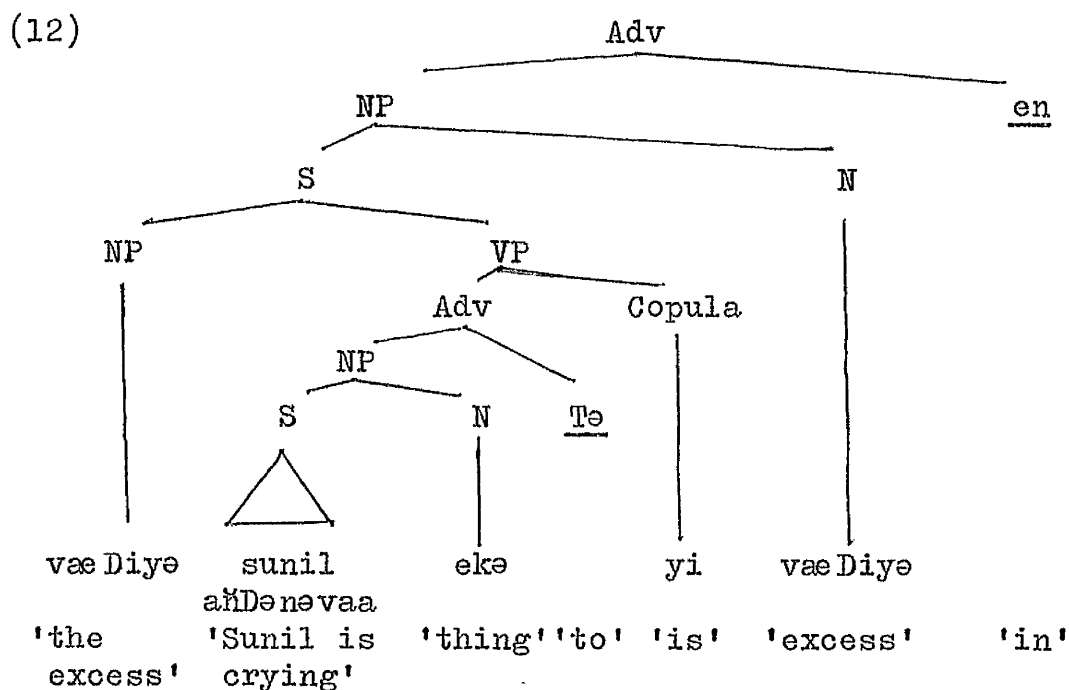


vœDiye itself occurs very rarely, if at all, as a subject or object NP in Sinhalese. The indefinite form vœDiyak (an excess) however, does occur in sentences like (11).

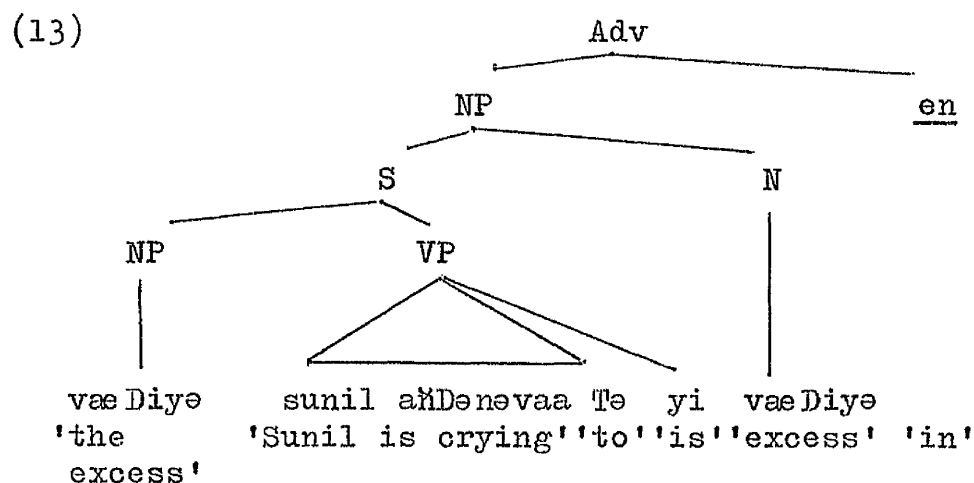
(11) apitə bat vœDiyak nəhə
 'us-to' 'rice' 'an excess' NEG

(There is no excess of rice to us, i.e. The rice is not too much for us.)

With such an analysis of væDiyen (in greater quantity), it is possible to postulate underlying structures like (12) for comparative structures with væDiyen.



eke Deletion would apply first, deriving an intermediate structure like (13).



Relative Phrase Formation would then apply, deleting the identical noun phrase væDiye (excess) in the embedded sentence, and subsequently T-Modifier would convert the predicate to its Modifier form sunil aḥDenēvaaTē (to Sunil's crying). (14) would result.

- (14) sunil aḥDenēvaaTē væDiyen
'Sunil is crying-to' 'in excess'

(more than Sunil is crying)

In Chapter 10 a possible Case Suffix Deletion rule is discussed, which derives certain single word adverbials from corresponding Tē and en NPs. In particular, it is suggested that væDiye (more) might be derived by this rule from væDiyen (in greater quantity). (See Ch. 10 p. 293 (36).) In this case, comparative constructions like (15), which appear in sentences like (8), can be similarly derived from those like (14).

- (15) sunil aḥDenēvaaTē væDiye
'Sunil is crying-to' 'more'

(more than Sunil is crying)

I have argued so far that (1) is derived from (8) by some sort of Comparative Reduction rules. Sentences like (16), in which the main verb in the comparative construction is not identical to the main verb of the sentence, and to which therefore, Comparative Reduction cannot apply, are further evidence that such comparative sentences must contain embedded sentences in their deep structure.

- (16) sunil hinaavenēvaaTē væDiye padma aḥDenēvaa
'Sunil' 'is laughing-to' 'more' 'Padma' 'is crying'

(Padma is crying more than Sunil is laughing.)

I have also attempted to show what the underlying structures of such sentences might look like. For sentences like (2) however, in which the predicate is an adjective and not a verb, there is no corresponding grammatical sentence to which Comparative Reduction has not applied. This is seen in the ungrammaticality of (17). Similarly, sentences with comparative constructions in which the respective predicates of the embedded and matrix sentences are non-identical adjectives, are ungrammatical. This is seen in (18).

- (17) *padma sunil læ jjaayiTe væDiye læ jjaayi
'Padma' 'Sunil' 'is shy-to' 'more' 'is shy'

(*Padma is shyer than Sunil is shy.)

- (18) *padma sunil bayayiTe væDiye læ jjaayi
'Padma' 'Sunil' 'is afraid-to' 'more' 'is shy'

(*Padma is more shy than Sunil is afraid.)

In the case of (2) and (17) it is possible to set up a common deep structure for both, and account for the ungrammaticality of (17) by making Comparative Reduction obligatory when the identical predicates are adjectives. No such explanation is available for (18).

What is interesting is that there exists a grammatical sentence (19) synonymous to (2). There is also a parallel grammatical sentence (20) which differs from the ungrammatical (18) in the same way that (19) differs from the ungrammatical (17).

- (19) padma sunil læ jjaa taremeTe væDiye læ jjaayi
'Padma' 'Sunil' 'shy' 'extent-to' 'more' 'is shy'

(Padma is shyer than the extent to which Sunil is shy,
i.e. Padma is shyer than Sunil.)

- (20) padma sunil bayə tareməTə væDiyə læjjaayi
 'Padma' 'Sunil' 'afraid' 'extent-to' 'more' 'is shy'

(Padma is more shy than the extent to which Sunil is afraid,
 i.e. Padma's shyness exceeds Sunil's fear.)

The lexical item taremə (amount or extent) belongs to a class of items like tæne (place), velaave (time), hæTi (way or manner), kaarenee (reason) etc. which have a feature specification $\left[\begin{smallmatrix} +N \\ +Abstract \end{smallmatrix} \right]$, each being specified in addition for some other feature like extent, place, time, manner, reason etc. Where they are specified $[+K/M]$ as well, the items kotəne (where), koyi velaave (what time), koyi taram or koccərə (how much) etc. are generated, and where they are specified $[+Dem]$, items like ee taram or eccərə (that much), mee taram or meccərə (this much) etc. J.R. Ross (1967) quotes S.Y. Kuroda, and notes that in English, similar nouns like 'time', 'way', 'manner', 'place' etc. may not be pronominalised, or moved away from any preposition with which they appear.²

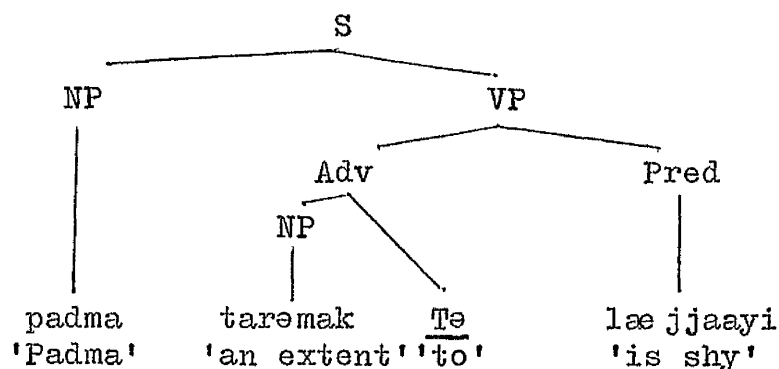
The phrase structure rules already formulated allow the generation of sentences like (21), with a deep structure (22).

- (21) padma tareməkəTə læjjaayi
 'Padma' 'an extent-to' 'is shy'

(Padma is somewhat shy.)

2. J.R. Ross (1967), Ch. 4 pp. 119.

(22)



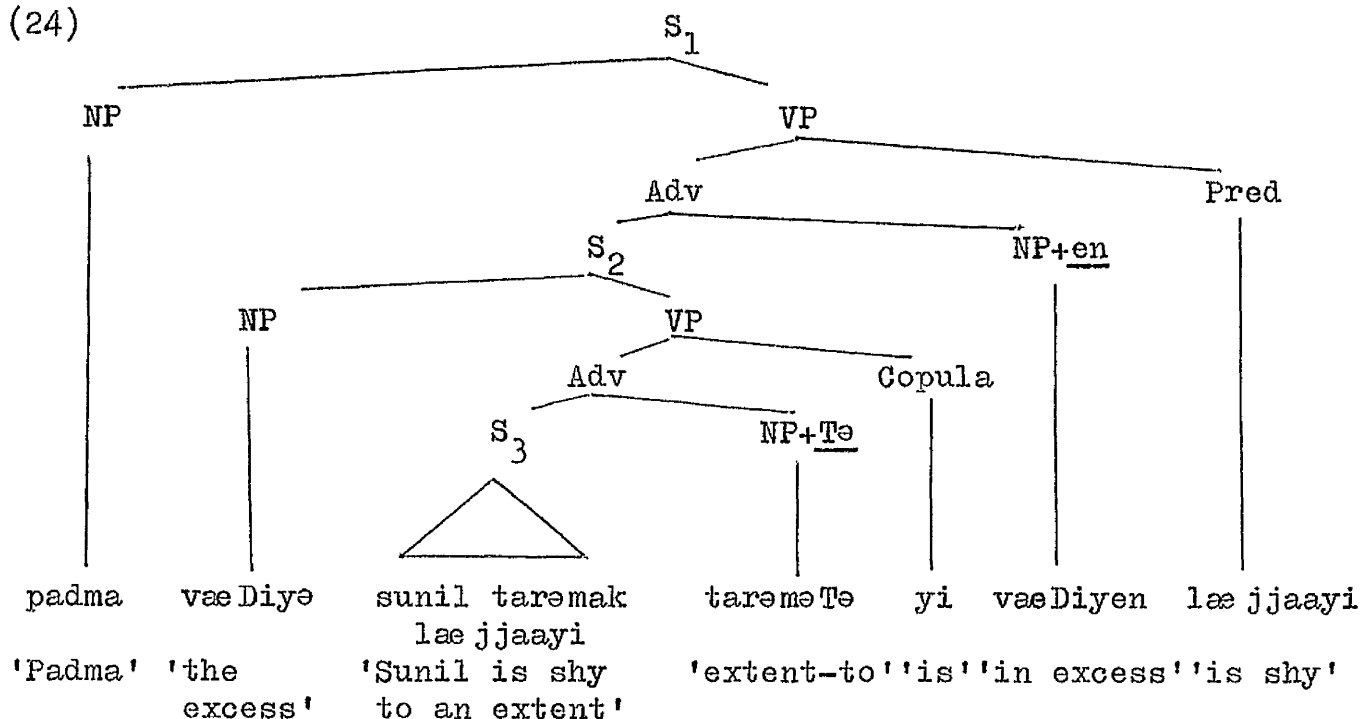
The synonymous (23) can then be derived from (21) by the Case Suffix Deletion rule discussed earlier.

(23) padma taremak læ jjaayi
 'Padma' 'an extent' 'is shy'

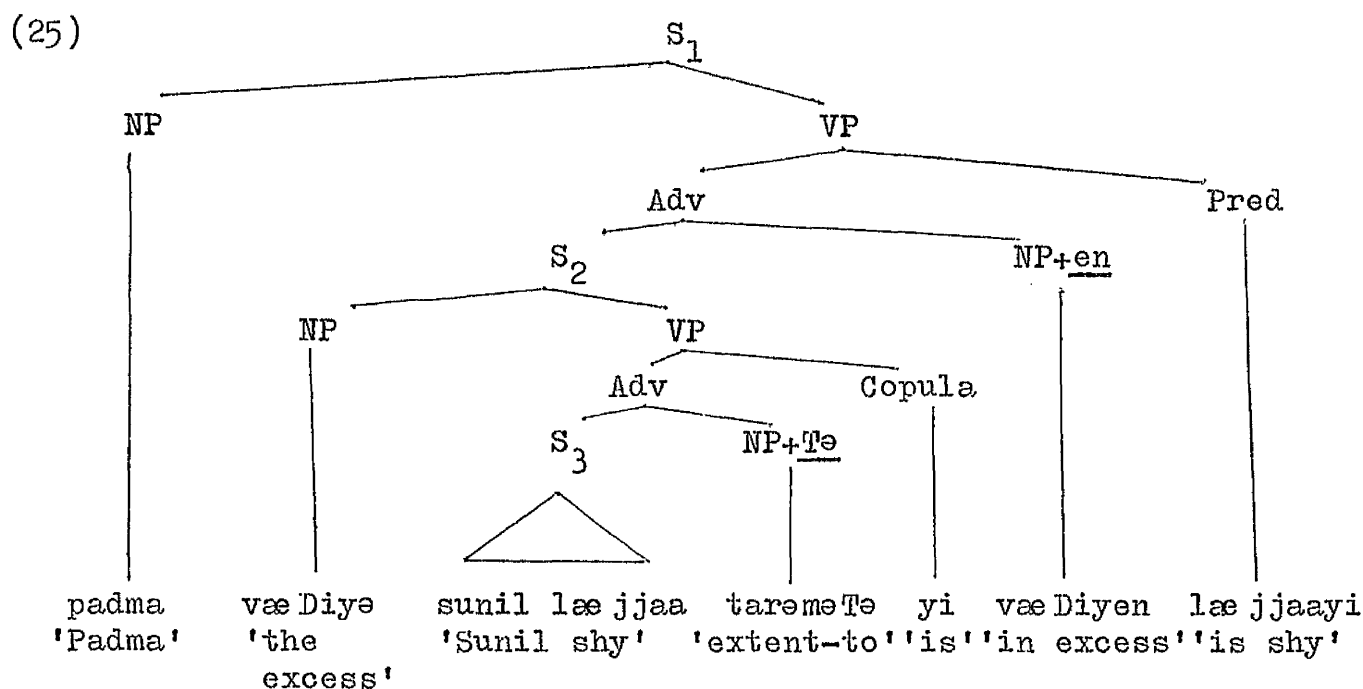
(Padma is somewhat shy.)

Since deep structures like (22) are possible, an underlying structure like (24) can be postulated for (19).

(24)



Relative Phrase Formation applies to the Te NP in S_2 , deleting the identical NP taremak (an extent) in S_3 , and T-Modifier then operates on the predicate of S_3 . (25) is the derived structure.



Relative Phrase Formation and T-Modifier now apply in the same way as to (13), and then Case Suffix Deletion applies, as to (14), thus deriving (19). (20) can be similarly derived.

It has already been noted that (2) and (19) are synonymous. Hence, it is worth investigating whether (2) too can be derived from an underlying structure like (24). It was stated earlier that Comparative Reduction appears to be some sort of abbreviatory device by which any repeated elements in the embedded sentence are deleted. Even with as general a description of Comparative Reduction as this, (2) cannot be derived from (24). What would be derived is the

ungrammatical (26).

- (26) *padma sunil tarəməTe væDiye læjjaayi
'Padma' 'Sunil' 'extent-to' 'more' 'is shy'

(*Padma is shyer than the extent to which Sunil.)

Clearly if (2) is to be derived from (24), some condition must exist which enables the deletion of tarəmə (extent) in (26). Three sorts of environments can be envisaged in which a noun like tarəmə (extent) can be deleted.³ In Chapter 4 (p. 150 (41)), a rule of Unspecified NP Deletion is formulated by which the subject NP of a sentence which is unspecified except for the feature [+Animate] can be deleted. Other types of unspecified noun phrase deletion must also exist to account for sentences like (27) in which the transitive verb kanəvaa (is eating) appears in surface structure without an object NP. Here, the cooccurrence restrictions of the verb specify that it must take an object NP in deep structure which must be minimally specified with the feature [-Abstract]. Hence the deleted item is uniquely recoverable as $\left[\begin{array}{c} +N \\ +Pro \\ -Abstract \end{array} \right]$.

- (27) padma kanəvaa
'Padma' 'is eating'

(Padma is eating.)

We noted that tarəmə (extent) belonged to a class of nouns

3. See Katz and Postal (1964), Ch. 4 pp. 79-84 for conditions governing deletion transformations.

marked $\begin{bmatrix} +N \\ +Abstract \end{bmatrix}$, but was in addition marked $[+Extent]$. It is conceivable therefore, that in an appropriate context, where the cooccurrence restrictions of a predicate specify that it must occur with a noun phrase minimally specified as $\begin{bmatrix} +Abstract \\ +Extent \end{bmatrix}$, tarəmə (extent) could be deleted by some sort of unspecified noun phrase deletion. The sort of deletion rule that must operate to derive sentences like (27) however applies usually to object NPs only.

It is also conceivable that tarəmə (extent) could be deleted under some type of identity condition, with a noun phrase in a higher sentence. Equi-NP Deletion and Relative Phrase Formation are both rules which depend on this kind of identity condition.

Thirdly, a rule of ekə or Pro Deletion was formulated, which deletes instances of $\begin{bmatrix} +N \\ +Pro \\ +Abstract \end{bmatrix}$ in certain environments. (See Ch. 4 p. 143 (26).) In an appropriate context, where the cooccurrence restrictions of the predicate specify that it must occur with a noun phrase marked $[+Extent]$, it seems possible that a noun phrase deleted by ekə or Pro Deletion could be recovered as

$\begin{bmatrix} +N \\ +Pro \\ +Abstract \\ +Extent \end{bmatrix}$, i.e. tarəmə (extent).

None of these conditions for deletion seem applicable at present to tarəmə (extent) in (26). However, if it can be shown that such conditions do exist for the deletion of tarəmə, then there is nothing to prevent an analysis like (24) being extended to

comparative sentences with verbs as predicates. In such a case, we would be claiming that (1) and (8) are both derived from the same deep structure underlying (28), and (16) from that underlying (29).

- (28) padma sunil aḥḍeṇə tareməṭə vāḍiye aḥḍeṇəvāa
'Padma' 'Sunil' 'crying' 'extent-to' 'more' 'is crying'

(Padma is crying more than the extent to which Sunil is crying,
i.e. Padma is crying more than Sunil.)

- (29) padma sunil hinaavenə tareməṭə vāḍiye aḥḍeṇəvāa
'Padma' 'Sunil' 'laughing' 'extent-to' 'more' 'is crying'

(Padma is crying more than the extent to which Sunil is laughing,
i.e. Padma is crying more than Sunil is laughing.)

There is no significant difference in meaning between (1) and (8) and (28), or between (16) and (29). This would mean that a single type of deep structure is postulated for comparative constructions with both verbs and adjectives as predicates.

At this stage, it is revealing to turn from comparative constructions of this sort, to 'equative' comparative constructions. (30)-(35) are all equative constructions. The optional particle mə which follows tareməṭə (to the extent) in these is an emphatic particle, giving here a sense of 'to the same, selfsame, very extent'. As equative constructions appear most frequently with, rather than without, this emphatic particle, I include it in all further examples without further explanation of its meaning. In constructions like those below, a variant taram(mə) (the same extent) frequently replaces tareməṭə(mə) (to the same extent). I do not discuss such

sentences here, but the suggested rule of Case Suffix Deletion would serve to derive these from the counterparts discussed here.

- (30) padma sunil tareməTə(mə) ləe jjaayi
'Padma' 'Sunil' 'same extent-to' 'is shy'

(Padma is as shy as Sunil.)

- (31) padma sunil ləe jjaā tareməTə(mə) ləe jjaayi
'Padma' 'Sunil' 'shy' 'same extent-to' 'is shy'

(Padma is as shy as Sunil.)

- (32) padma sunil bayə tareməTə(mə) ləe jjaayi
'Padma' 'Sunil' 'afraid' 'same extent-to' 'is shy'

(Padma is as shy as Sunil is afraid.)

- (33) padma sunil tareməTə(mə) aḥDənevaa
'Padma' 'Sunil' 'same extent-to' 'is crying'

(Padma is crying as much as Sunil.)

- (34) padma sunil aḥDəne tareməTə(mə) aḥDənevaa
'Padma' 'Sunil' 'crying' 'same extent-to' 'is crying'

(Padma is crying as much as Sunil is (crying).)

- (35) padma sunil hinaavene tareməTə(mə) aḥDənevaa
'Padma' 'Sunil' 'laughing' 'same extent-to' 'is crying'

(Padma is crying as much as Sunil is laughing.)

The pairs (30) and (31), and (33) and (34) are synonymous. Also, by the same argument used earlier, we can show that by deriving sentences like (30) and (33) from those like (31) and (34) respectively by a process of Comparative Reduction, we can account for the ungrammaticality of sets of sentences like (36)-(38) by a single phenomenon, the cooccurrence restrictions of the predicate ləe jjaā (shy).

- (36) *padma meesee tareməTə(mə) læjjaayi
 'Padma' 'the table' 'same extent-to' 'is shy'

(*Padma is as shy as the table.)

- (37) *padma meesee læjjaa tareməTə(mə) læjjaayi
 'Padma' 'the table' 'shy' 'same extent-to' 'is shy'

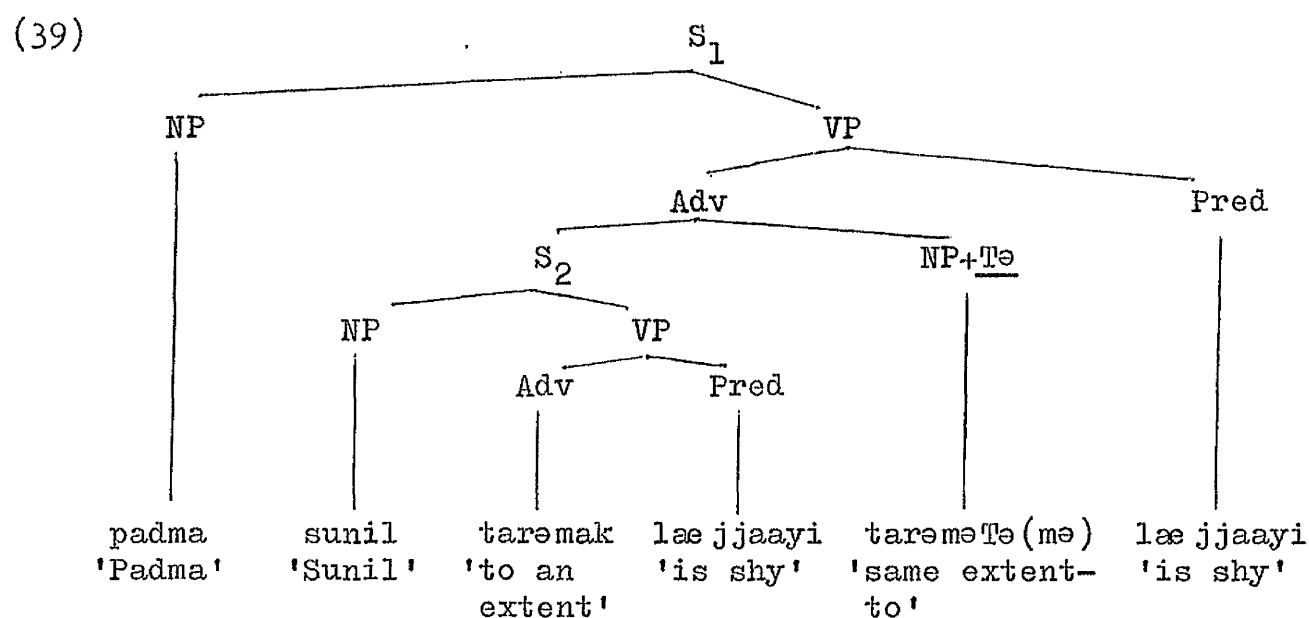
(*Padma is as shy as the table is shy.)

- (38) *meesee læjjaayi
 'the table' 'is shy'

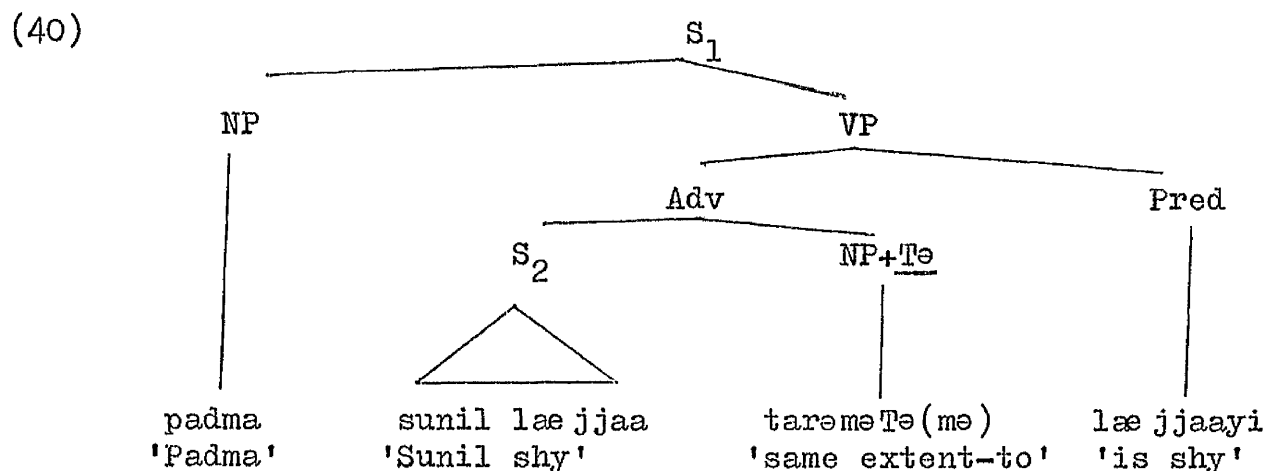
(*The table is shy.)

In (30) and (33), Comparative Reduction has deleted the repeated predicates læjjaa (shy) and akDəne (crying) in the comparative construction. In (32) and (35), the reduction process cannot apply as there are no repeated elements in the comparative construction.

The deep structure of an equative sentence like (31) must quite clearly be something like (39).



Relative Phrase Formation applies to the Te NP in S_1 , deleting the identical NP taremak (an extent) in S_2 . T-Modifier then operates on the predicate of S_2 . (40) is the derived structure.



What is of interest here is that in (39), taremak (an extent) in S_2 is matched by a corresponding tareme (extent) in S_1 , and it is by identity with this that the noun in S_2 is deleted. This suggests that the deep structures of the type of comparative constructions discussed earlier could also be similar, and have an occurrence of tareme (extent) in both embedded and matrix sentences.

This means claiming that sentences like (1), (8), (28) and (41) are all derived from an identical deep structure containing two occurrences of tareme (extent), and that (2), (19) and (42) are derived from a similarly identical deep structure. It is noteworthy that there is no significant difference of meaning between the sentences in the respective sets, and that the longer forms are relatively less common in occurrence than the reduced versions.

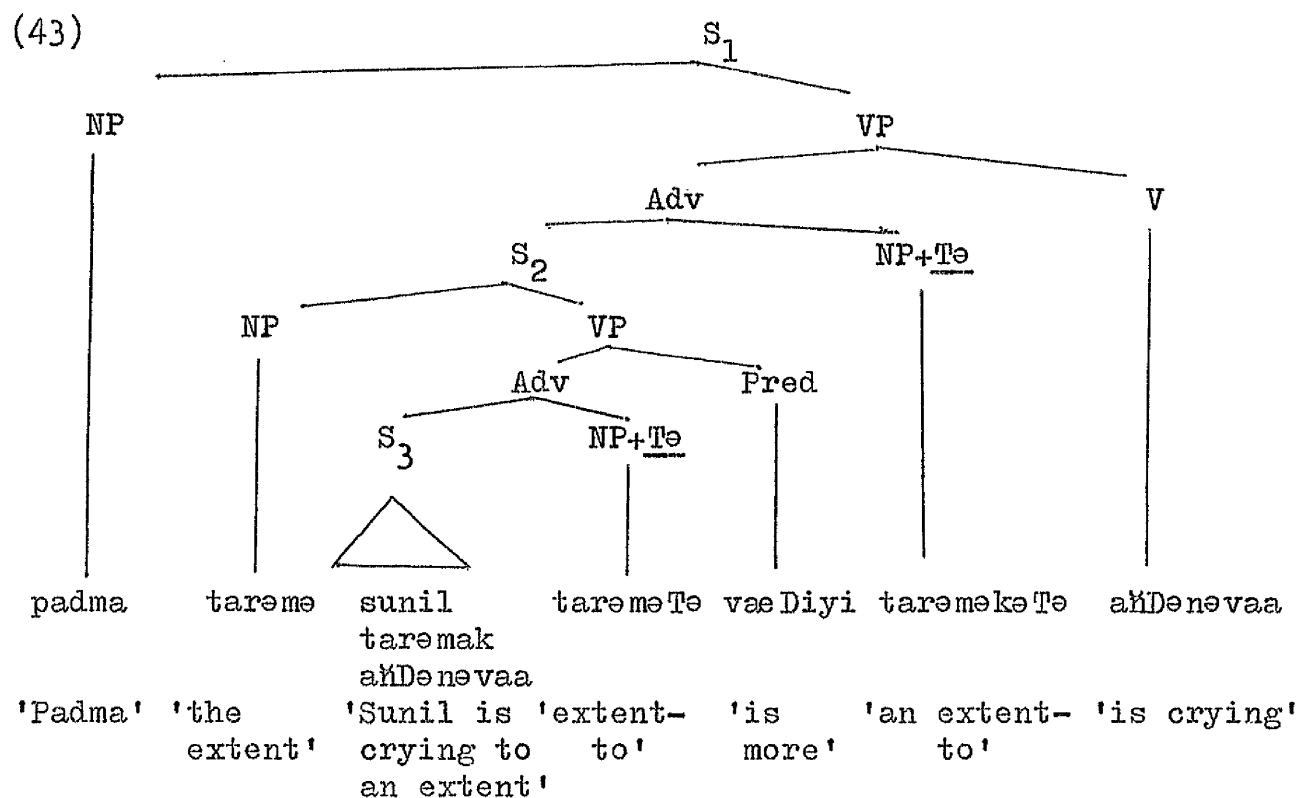
- (41) padma sunil aḥDəne tareməTe væDi(yə) tareməkəTe
 'Padma' 'Sunil' 'crying' 'extent-to' 'more' 'an extent-to'
 aḥDənevaa
 'is crying'

(Padma is crying to a greater extent than the extent to which Sunil is crying, i.e. Padma is crying more than Sunil.)

- (42) padma sunil læjjaa tareməTe væDi(yə) tareməkəTe
 'Padma' 'Sunil' 'shy' 'extent-to' 'more' 'an extent-to'
 læjjayi
 'is shy'

(Padma is shy to a greater extent than the extent to which Sunil is shy, i.e. Padma is shyer than Sunil.)

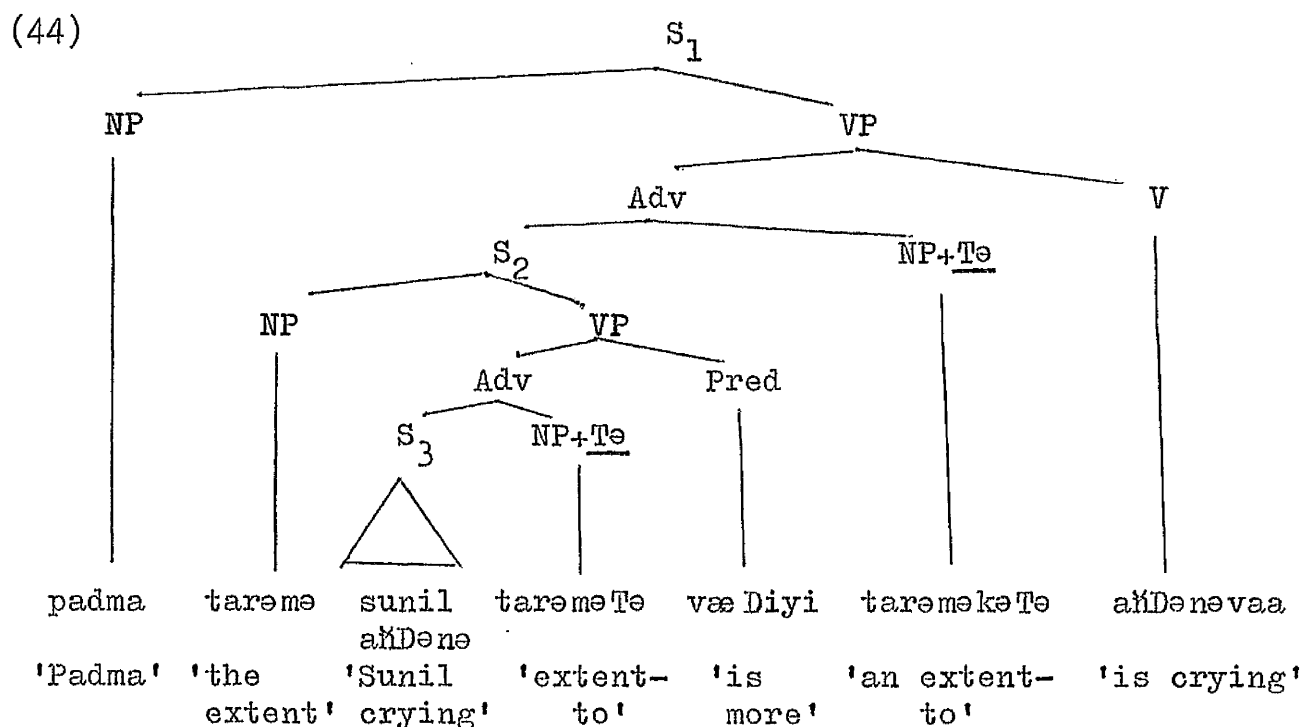
The deep structure underlying the set (1), (8), (28), and (41) would be something like (43).



Relative Phrase Formation applies to the Te NP in S₂,

deleting the identical noun phrase taremak (an extent) in S_3 .

T-Modifier then operates on the predicate of S_3 . (44) is the derived structure.



Now, in deep structure (43), the predicate of S_2 is vaDi (more). vaDi is a predicate which may occur either with a subject NP only, or with a subject NP and a Te NP, all of which must contain a feature [+Extent]. In (45)-(48) it occurs with a subject NP only, and the first three sentences are grammatical only when the noun phrases are interpreted as 'the extent, i.e. number of books', 'the extent, i.e. amount of flour', 'the extent, i.e. amount of noise'. The ungrammaticality of (48) seems to stem from the fact that its subject NP is singular, and therefore cannot be interpreted as 'the extent, or the number of book'. Hence, it seems the case that

$$\begin{bmatrix} +\text{Count} \\ -\text{Singular} \end{bmatrix}$$

nouns like pot (books), $\begin{bmatrix} -\text{Count} \\ -\text{Abstract} \end{bmatrix}$ nouns like piTi (flour), and $\begin{bmatrix} -\text{Count} \\ +\text{Abstract} \end{bmatrix}$ nouns like saddə (noise) may be marked [+Extent], but not $\begin{bmatrix} +\text{Count} \\ +\text{Singular} \end{bmatrix}$ nouns like pote (the book). madi (too little) may replace væDi (more, too much) as predicate in all the sentences.

- (45) pot væDiyi
'books' 'too many-are'

(There are too many books.)

- (46) piTi væDiyi
'flour' 'too much-is'

(There is too much flour.)

- (47) saddə væDiyi
'noise' 'too much-is'

(There is too much noise.)

- (48) *pote væDiyi
'the book' 'too much-is'

(*The book is too much.)

(49)-(52) contain both a subject NP and a Te NP. Again, the first three sentences are grammatical only when the noun phrases are interpreted as 'the extent, i.e. number of books, tables' etc. and the ungrammaticality of (52) seems to stem from the fact that its subject NP is singular and cannot be interpreted 'the extent or number of Padma'. aDu (less) may replace væDi (more) as predicate in all the sentences.

- (49) oye pot mee meeseveleTe væDiyi
'those' 'books' 'these' 'tables-to' 'more-are'

(There are more of those books than there are of these tables.)

- (50) oye piTi mee seenivələTə vœDiyi
'that' 'flour' 'this' 'sugar-to' 'more-is'

(There is more of that flour than there is of this sugar.)

- (51) magee duke oyaagee satuTəTə vœDiyi
'my' 'sorrow' 'your' 'joy-to' 'more-is'

(My sorrow is greater than your joy.)

- (52) *padma oye potvələTə vœDiyi
'Padma' 'those' 'books-to' 'more-is'

(*Padma is more than those books.)

$\begin{bmatrix} +\text{Count} \\ -\text{Singular} \end{bmatrix}$, $\begin{bmatrix} -\text{Count} \\ -\text{Abstract} \end{bmatrix}$, and $\begin{bmatrix} -\text{Count} \\ +\text{Abstract} \end{bmatrix}$ nouns may also appear as possessive modifiers of nouns like taremə (extent) which are marked [+Extent]. $\begin{bmatrix} +\text{Count} \\ +\text{Singular} \end{bmatrix}$ nouns like padma however may not. (53)-(56) illustrate this.

- (53) pot taremə or ganəne
'books' 'extent' 'number'

(the extent, i.e. number of books)

- (54) piTi taremə
'flour' 'extent'

(the extent, i.e. amount of flour)

- (55) dukee taremə
'sorrow-of' 'extent'

(the extent, amount of sorrow)

- (56) *padmagee taremə or ganəne
'Padma-of' 'extent' 'number'

(*the extent or number of Padma)

Where the possessive modifier is specified [+Count], either taremə (extent) or ganəne (number) occurs, the latter being preferable.

The fact that $\begin{bmatrix} +\text{Count} \\ +\text{Singular} \end{bmatrix}$ nouns may not occur in such contexts suggests again that such nouns may not be marked [+Extent]. Where a noun like padma is marked [-Count] however, it can be marked [+Extent], and padmagee tareme, for instance, is grammatical in the sense 'Padma's extent or size'. *padmagee ganene (*the number of Padma) is excluded by the fact that ganene (number) occurs only with [+Count] nouns.

Returning to deep structure (43), the properties of the predicate of S_2 , væDi (more) specify that the subject NP and Te NP with which it occurs must be marked [+Extent]. We noted earlier that it was conceivable that tareme (extent) could be deleted by some form of unspecified noun phrase deletion or Pro deletion in an appropriate context where the properties of the predicate specified that it must occur with a noun phrase marked [+Extent]. These conditions are met in S_2 in both (43) and (44).

Unspecified NP Deletion of the sort that must apply here however operates only on object NPs, and hence cannot apply. An extended version of ekə or Pro Deletion of the sort suggested earlier however can. I will not examine the possibility of such an extension of ekə Deletion in detail, and hence, the analysis proposed for comparative constructions here, which depends crucially on it, remains tentative. (57) and (58) however, provide some support for such an extension. (57b) is a grammatical sentence, and does not differ semantically in any significant way from (57a). The predicate in

both sentences is væDi (more). The a sentence has a sentential subject NP with no noun head, while the corresponding noun phrase in the b sentence has a noun head tarəmə (extent). (58b) however, though also grammatical, differs semantically from (58a). The predicate in both sentences is peenəvaa (can be seen). Like in (57), the a sentence has a sentential subject NP with no noun head, while the corresponding noun phrase in the b sentence has a noun head tarəmə (extent). This seems to suggest that the deleted noun head is tarəmə (extent) in (57a), but ekə (thing) in (58a). If this is so, Pro - Deletion must delete tarəmə rather than ekə in sentences with a predicate væDi (more).

- (57) a padma aŋDənevaa væDiyi
 'Padma' 'is crying' 'too much-is'

(Padma is crying too much.)

- b padma aŋDəne tarəmə væDiyi
 'Padma' 'crying' 'extent' 'too much-is'

(Padma is crying to too great an extent.)

- (58) a padma aŋDənevaa peenəvaa
 'Padma' 'is crying' 'is seen'

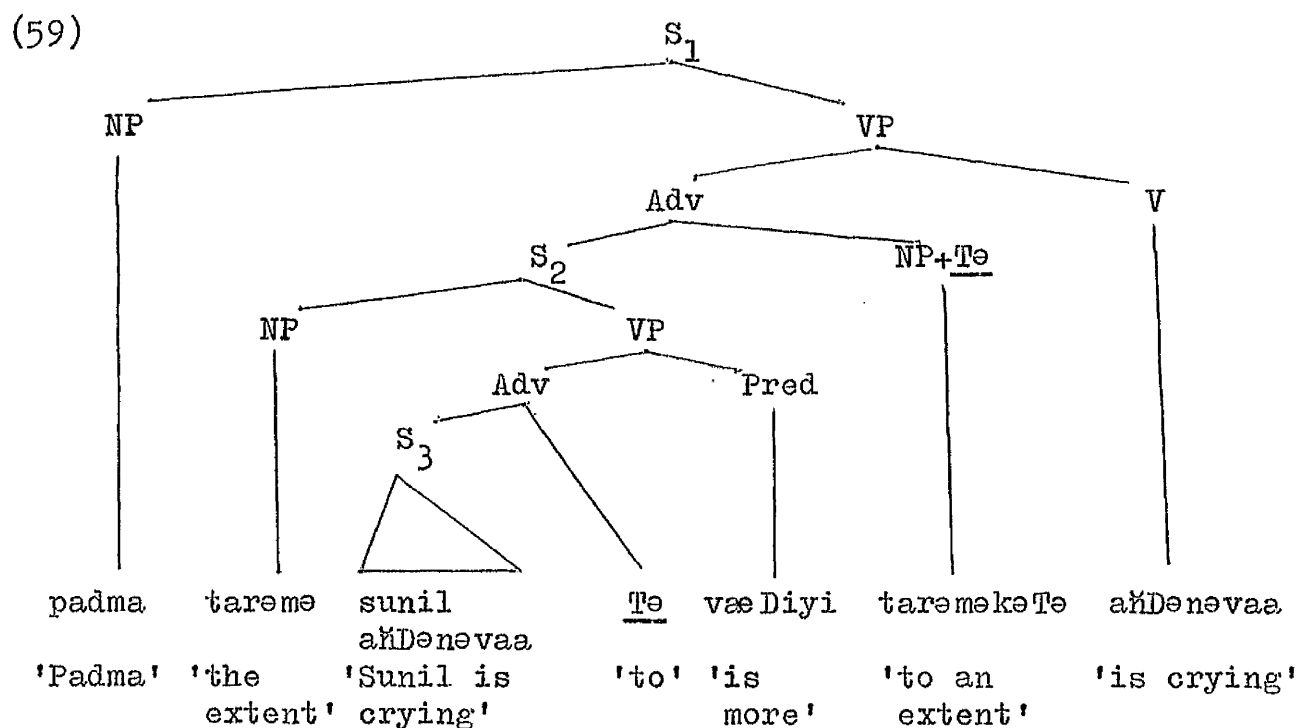
(Padma can be seen crying.)

- b padma aŋDəne tarəmə peenəvaa
 'Padma' 'crying' 'extent' 'is seen'

(The extent to which Padma is crying can be seen.)

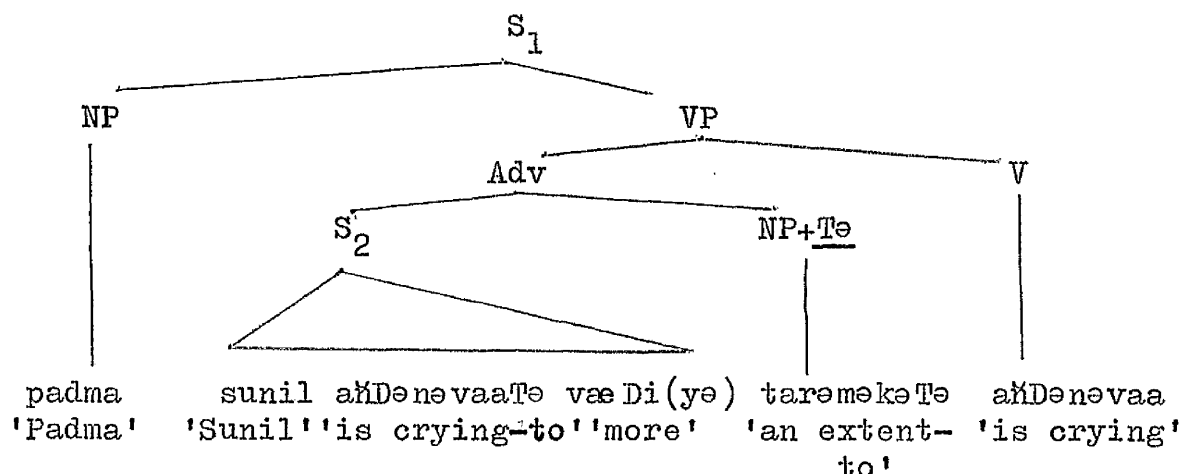
In the discussion below, I assume that tarəmə (extent) in the Te NP in (43) and (44) may be deleted by a form of Pro Deletion under such conditions.

Now, in Chapter 3 a transformational rule T-Modifier is formulated which applies obligatorily to all sentences embedded in a noun phrase. The structural description of this rule necessitates the presence of a noun head in such noun phrases (see Ch. 3 p. 100 (10)). In Chapter 4, T-Modifier is ordered to apply after the optional ekə Deletion. By this ordering, it is possible to block both rules operating on the same sentence. In deep structures like (43), if tareme (extent) in the Te NP in S_2 is deleted, then the adverbial in S_2 no longer meets the structural description of T-Modifier. In this case, only Relative Phrase Formation will apply to the Te NP, and the derived structure will be (59), and not (44).



It was stated in Chapter 4 (p. 143) that ekə Deletion could not operate on a noun phrase when the sentence embedded in it

(61)



- (62) padma sunil aṇḍeṇevaaṭe væDi(yə) taremekəṭe
 'Padma' 'Sunil' 'is crying-to' 'more' 'an extent-to'
 aṇḍeṇevaa
 'is crying'

(Padma is crying to a greater extent than Sunil is crying,
 i.e. Padma is crying more than Sunil.)

Now, the subject NP in S_2 in (44) and (59) is deleted by Relative Phrase Formation on identity with the noun taremak in the Te NP of S_1 . Since the deleted noun phrase cooccurs with væDi (more), it must necessarily be specified as $\begin{bmatrix} +N \\ +Extent \end{bmatrix}$. By identity, the noun in the Te NP of S_1 must also be specified with these features. Hence the presence of væDi(yə) (more) in surface structure necessitates that the Te NP in S_1 be minimally specified as $\begin{bmatrix} +N \\ +Extent \end{bmatrix}$. Under these conditions, and given that some form of tareme Deletion is possible with væDi (more), this rule can apply again. When it applies to the derived phrase markers (60) and (61), surface structures (28) and (8) respectively are derived. (1) can then be derived,

as suggested earlier, by Comparative Reduction. Hence, by setting up a deep structure like (43) we can generate a whole set of synonymous sentences, (1), (8), (28), (41) and (62). Postulating a similar deep structure for (2), (19), and (42) will also account in a natural way for the ungrammaticality of (17), and will provide a single explanation for the ungrammaticality of both (17) and (18).

The deep structure itself appears to be justified. If some form of tarəmə Deletion is possible with væDi (more), then no additional rules need be added to the grammar to permit the derivation of a range of sentences that seem to be synonymous. The justification for the deep structure however is independent of their synonymy. The fact that similar deep structures exist for equative comparative constructions seems to be supporting evidence in favour of this analysis. Hence, though such a deep structure claims that comparative sentences contain at least two embedded sentences in underlying structure, and depends essentially on the possibility of ekə Deletion being extended to some sort of tarəmə Deletion in sentences with a predicate væDi (more), it accounts for a variety of cases, and appears to be otherwise based on valid arguments. The fact that deep structures of equative constructions, e.g. (39), do not contain væDi (more) explains why tarəmə (extent) is not deletable in these.

If an analysis like (43) were after all to be proved wrong, then the alternative analysis for comparative constructions would be something like (24). Some of the problems such an analysis run into

have already been noted. In addition, it necessitates allowing a definite noun phrase væDiye (the excess), though such a form rarely or never occurs elsewhere; and permitting a sentence like væDiye sunil aŋDenəvaaTayi (The excess is to Sunil crying.), which even if allowed to be grammatical, never occurs independently as an acceptable sentence.

Failing even this, it would be necessary to resort to an underlying structure like (9), which though 'simpler' in the sense that it contains fewer embeddings, is nevertheless clearly lacking in explanatory power.

Are there any positive advantages in an analysis like (43)? R. Huddleston (1967) lists six main types of matrix structure in English comparative constructions according to the value or function of 'more'.⁴ A. Hale (1970) refers to these same six types, and adds a seventh. The six positions distinguished by Huddleston are:

- a ordinator in a nominal group:
Mary bought more records than Peter.
- b head in a nominal group:
Mary achieved more than Peter.
- c head in an adverbial group:
Mary talks more than Peter.
- d modifier of an adjective head:
Mary is more talkative than Peter.

4. R. Huddleston (1967), p. 92.

e sub-modifier of an adjective modifier:

Mary bought a more expensive car than Peter.

f modifier of an adverb head:

Mary talks more quickly than Peter.

Hale distinguishes a and b as determiner position with and without a noun head present, c and d as adjective position in the predicate, and in a noun phrase, respectively, and e and f as adverb position with an adverb and a verb respectively. He adds a seventh position identical to c, that of adjectival verbal complement.⁵ This is illustrated in g.

g John washed the window cleaner than Bill did.

With the type of analysis proposed in (43), all seven types above can be accounted for with no additional rules. Type a finds a Sinhalese counterpart in (63).

- (63) padma sunilTə væDiye pot gattaa
'Padma' 'Sunil-to' 'more' 'books' 'bought'

Under the particular interpretation we are interested in,

(63) is synonymous not to (64) but (65).

- (64) padma sunil pot gattaaTə væDiye pot gattaa
'Padma' 'Sunil' 'books' 'bought-to' 'more' 'books' 'bought'

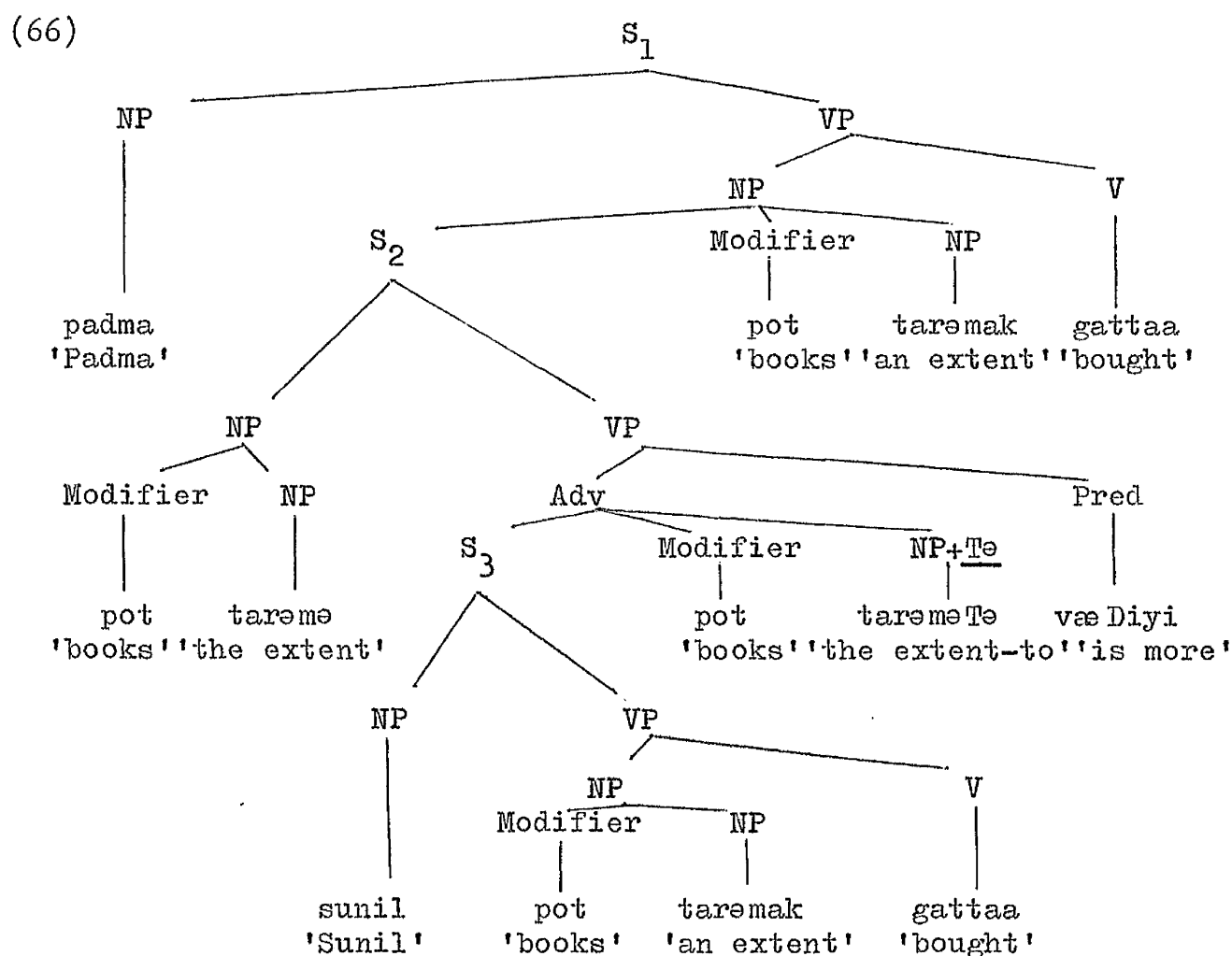
(Padma bought more books than Sunil bought books, i.e. Padma did more book-buying than Sunil did.)

- (65) padma sunil gatte potvələTə væDiye pot gattaa
'Padma' 'Sunil' 'bought' 'books-to' 'more' 'books' 'bought'

(Padma bought more books than the books Sunil bought, i.e. Padma bought a greater number of books than Sunil.)

5. A. Hale (1970), pp. 35-36.

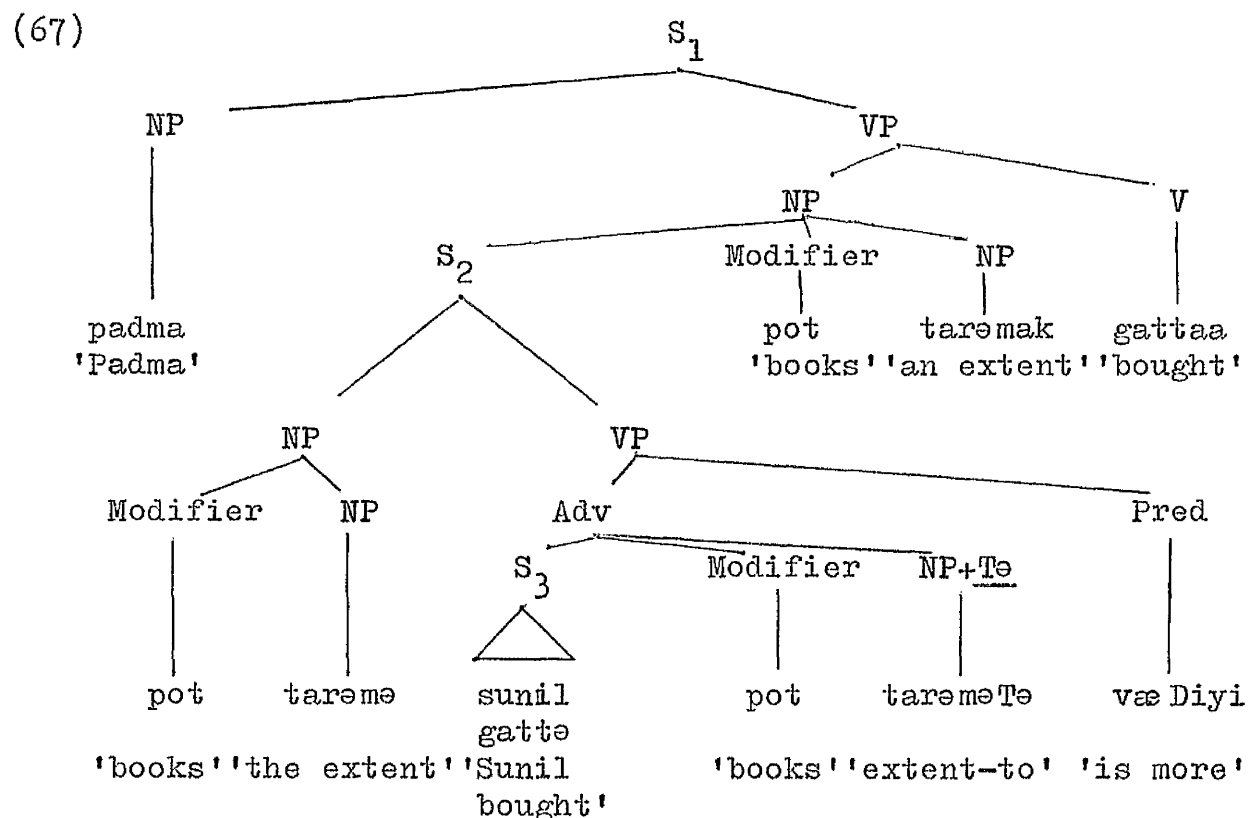
I have already argued that a noun phrase tareme (extent) occurs in both the embedded and matrix sentences of comparative constructions. Given such a claim, both (63) and (65), and the set of other synonymous sentences in which one or more tareme (extent) appears overtly, must be derived from an underlying structure like (66).



pot tareme (the extent, i.e. number of books) is a complex noun phrase in which pot (books) is, as noted for (53), a possessive

modifier derived by the usual processes of relativisation. The detailed derivation of such noun phrases is not given in (66), and pot (books) is analysed as 'Modifier'.

Relative Phrase Formation applies to the Tə NP in S_2 , deleting the identical object NP pot taremak (a number of books) in S_3 . T-Modifier then applies to the main verb in S_3 . (67) is the derived phrase marker.



tareme (extent) in the Tə NP in S_2 may be deleted since it cooccurs with væDi (more) and is the head of a complex noun phrase. In this case, Tə will be affixed to pot (books), and after phonological rules apply 'pot + Tə' will be spelt out as potvæleTə (to the books).

Alternatively, tarəmə (extent) may be retained. A similar option is available in the case of tarəmak (an extent) in the object NP of S_1 . Hence the proposed analysis can account, with no additional rules, for type a constructions.

Type b finds a Sinhalese counterpart in (68) and (69) etc.

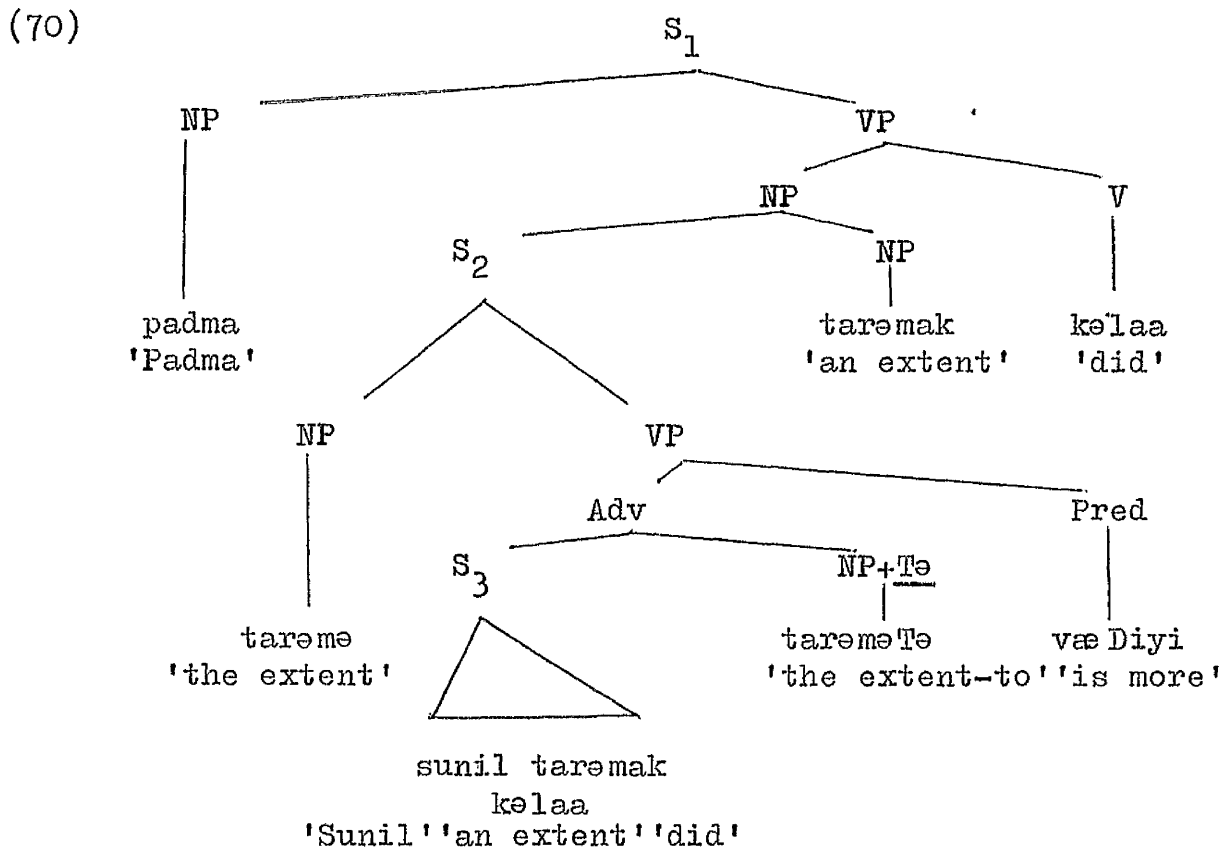
- (68) padma sunil kəlaaTə vœDiye kəlaa
'Padma' 'Sunil' 'did-to' 'more' 'did'

(Padma did more than Sunil (did).)

- (69) padma sunil kələ tarəməTə vœDi(yə) tarəmak kəlaa
'Padma' 'Sunil' 'did' 'extent-to' 'more' 'an extent' 'did'

(Padma achieved a greater amount than the amount Sunil achieved, i.e. Padma did more than Sunil.)

Both these and the other related sentences can be derived from a deep structure like (70).



(69) is derived by the usual processes. tarəmə (extent) in the Tə NP of S_2 and tarəmak (an extent) in S_1 may both be deleted under the same conditions as before. Where the former is deleted, T-Modifier cannot apply to the main verb of the embedded S_3 . (68) and the other related sentences can be accounted for thus.

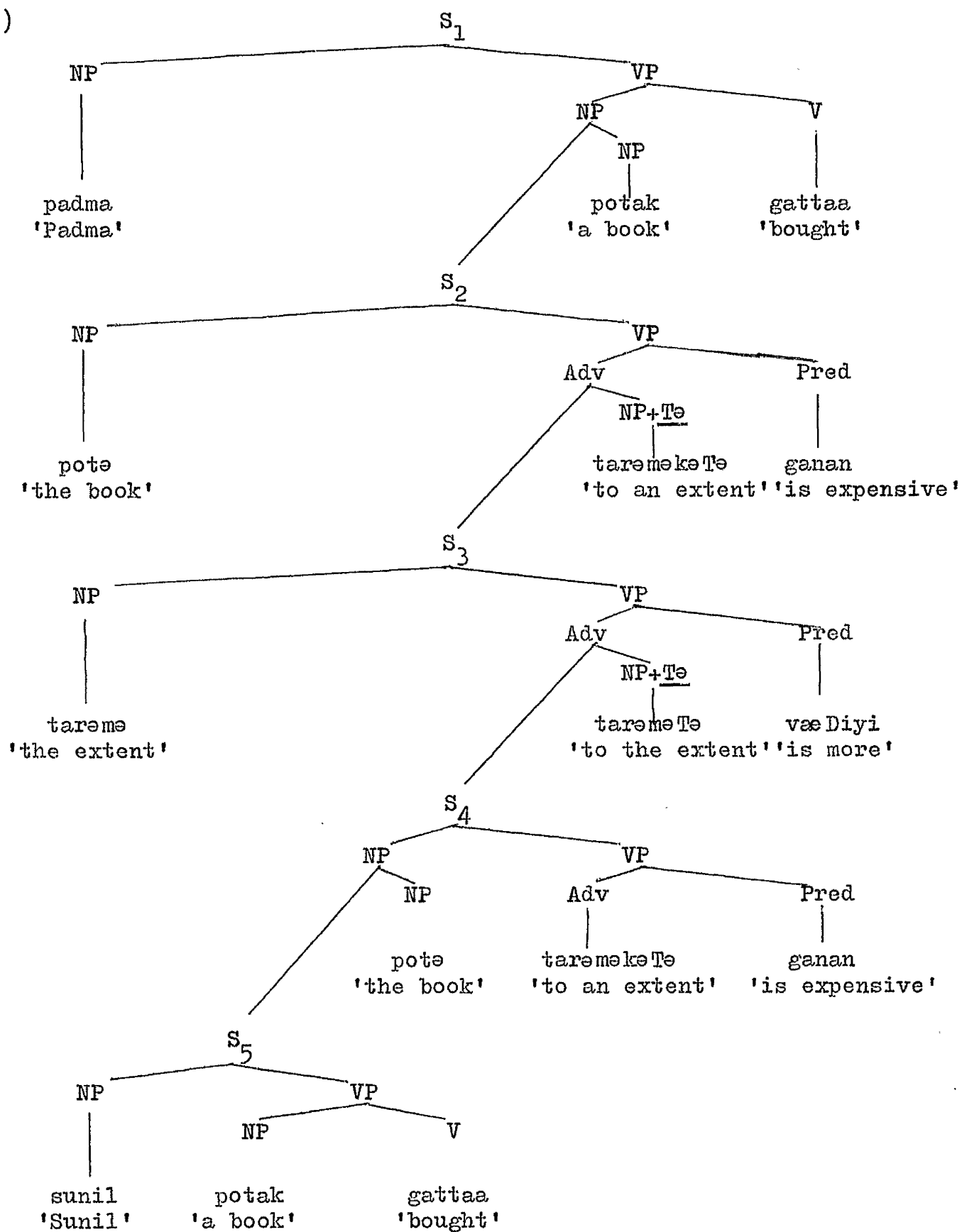
Type c finds a Sinhalese counterpart in (1), which we have together already discussed/with other related forms. Similarly, d finds its parallel in (2) and its set of related sentences. e has a parallel in (71) and other related constructions. (72) is the relevant deep structure.

- (71) padma sunil gattə potəTə væDiye ganān
 'Padma' 'Sunil' 'bought' 'book-to' 'more' 'expensive'
 potak gattāa
 'a book' 'bought'

(Padma bought a more expensive book than the book Sunil bought, i.e. Padma bought a more expensive book than Sunil did.)

In (72) (given on p. 355), Relative Phrase Formation and T-Modifier operate on S_5 , which is embedded in the noun phrase potə (the book), deriving a noun phrase sunil gattə potə (the book Sunil bought). The same rules then operate on S_4 , which is embedded in the Tə NP tarəməTə (to the extent), deriving a noun phrase sunil gattə potə ganān tarəməTə (to the extent the book Sunil bought is expensive). Since ganān (expensive) is an adjective, tarəmə (extent) cannot be deleted here, and hence the ungrammatical *sunil gattə potə ganānTə (*to the book Sunil bought is expensive) is blocked. The same two rules above then operate on S_3 , which is embedded in the Tə NP

(72)



tareṃekəṭə (to an extent), deriving a noun phrase sunil gatte pote ganān tareṃəṭə vāḍi(yə) tareṃekəṭə (to an extent greater than the extent to which the book Sunil bought is expensive); and then on S_2 , which is embedded in the noun phrase potak (a book), this time deriving a noun phrase sunil gatte pote ganān tareṃəṭə vāḍi(yə) tareṃekəṭə ganān potak (a book expensive to an extent greater than the extent to which the book Sunil bought is expensive). The resulting surface structure is (73).⁶

- (73) padma sunil gatte pote ganān tareṃəṭə
 'Padma' 'Sunil' 'bought' 'book' 'expensive' 'extent-to'
 vāḍi(yə) tareṃekəṭə ganān potak gattā
 'more' 'an extent-to' 'expensive' 'a book' 'bought'

(Padma bought a book expensive to an extent greater than the extent to which the book Sunil bought is expensive, i.e. Padma bought a more expensive book than Sunil did.)

be
tareṃekəṭə (to an extent) may optionally/deleted by

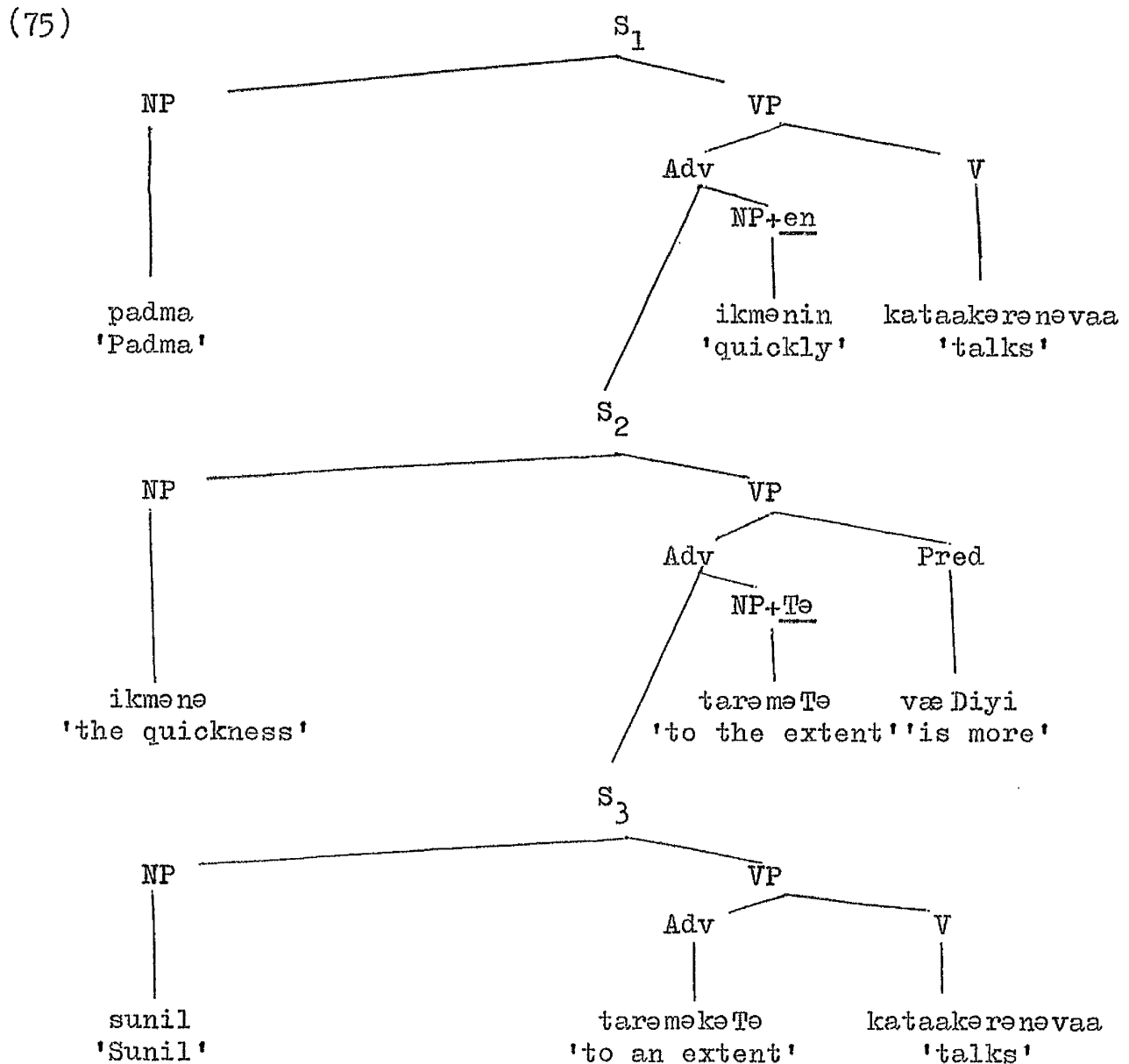
tareṃə Deletion. Comparative Reduction may also apply, deleting all repeated elements in the embedded construction. After this, tareṃə-Deletion may apply again, this time deleting tareṃəṭə (to the extent). (71) is the result.

Type f finds a Sinhalese parallel in (74) and other related sentences. (75) is the relevant deep structure.

6. (73) is an incredibly clumsy sentence in Sinhalese, and to some speakers inadmissible. For these speakers tareṃə Deletion must be obligatory in such contexts.

- (74) padma sunilTə væDiye ikmənin kataakərenəvaa
 'Padma' 'Sunil-to' 'more' 'quickly' 'talks'

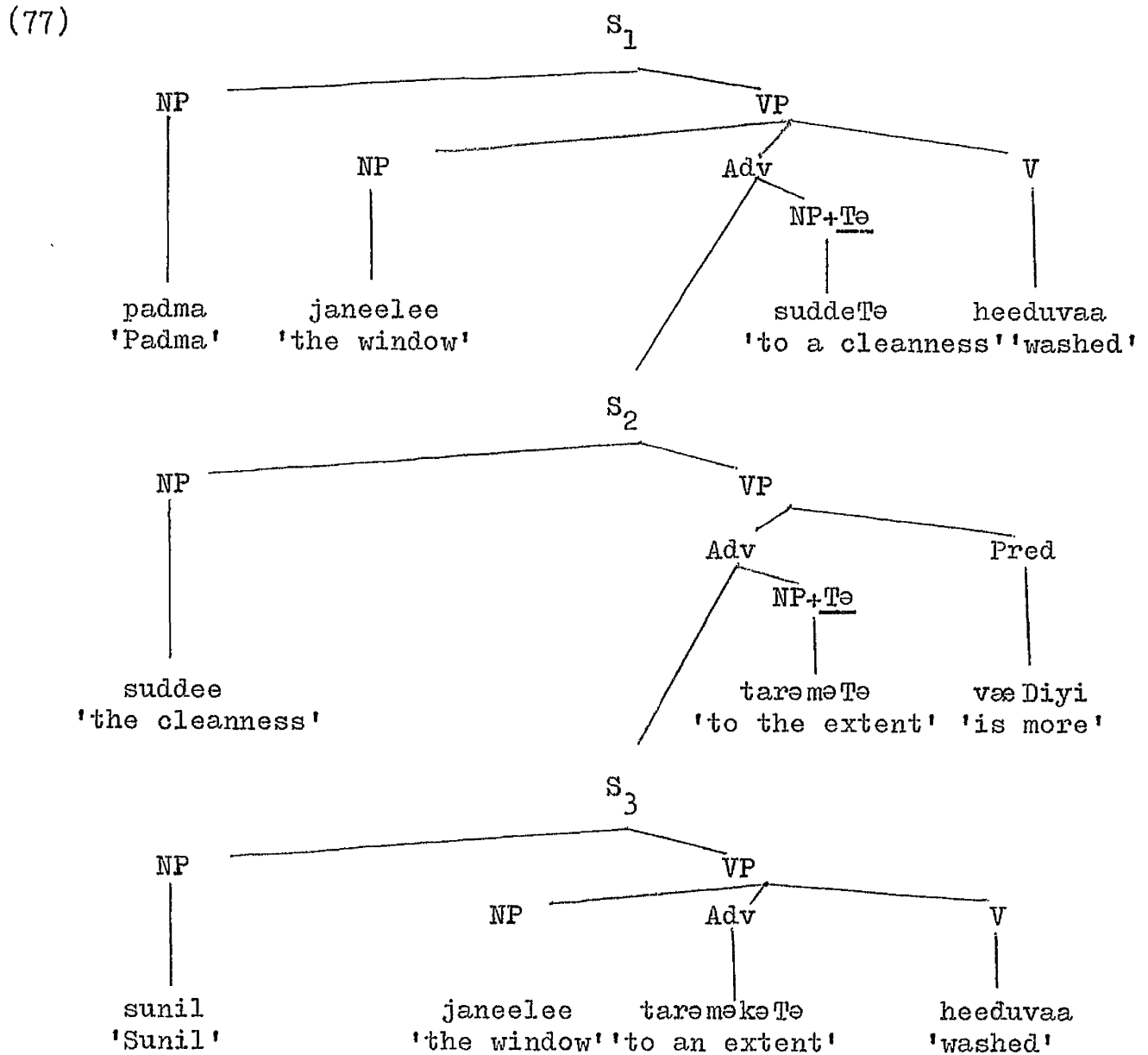
(Padma talks more quickly than Sunil.)



Finally, type *g* has a parallel in (76), which has a deep structure (77).

- (76) padma sunil janeelee heeduvaaTə væDiyə suddəTə
 'Padma' 'Sunil' 'the window' 'washed-to' 'more' 'clean'
 janeelee heeduvaa
 'the window' 'washed'

(Padma washed the window cleaner than Sunil did.)



Hence, it is possible to extend an analysis of comparative constructions like that in (43) to all seven positions referred to by Hale.

This analysis can also account for both the 'explicitly' and 'implicitly' defined standards of comparison referred to in Huddleston. He says:

" . . . in the former, the comparative expansion consists of than plus a nominal group; in the latter, than introduces a clause . . . " ⁷

He gives as an example of the former 'the attacks come as frequently as once a day', and comments:

"Indeed, Lees derives (11) [The attacks come as frequently as once a day] by reduction from 'the attacks come as frequently as the attacks come once a day'. Not only is this dissatisfying from an intuitive semantic point of view (it suggests that one is comparing the frequency of the attacks with the frequency of the attacks); it also makes his grammatical rules less general than they could and should be". ⁸

The deep structure for a similar Sinhalese sentence (78) would be (79).

(78) vaeDe varjene maasekeTe saerəyak taram
 'strikes' 'a month-for' 'a time' 'an extent-to'
 niterəmə tiyenəvaa
 'frequently' 'are'

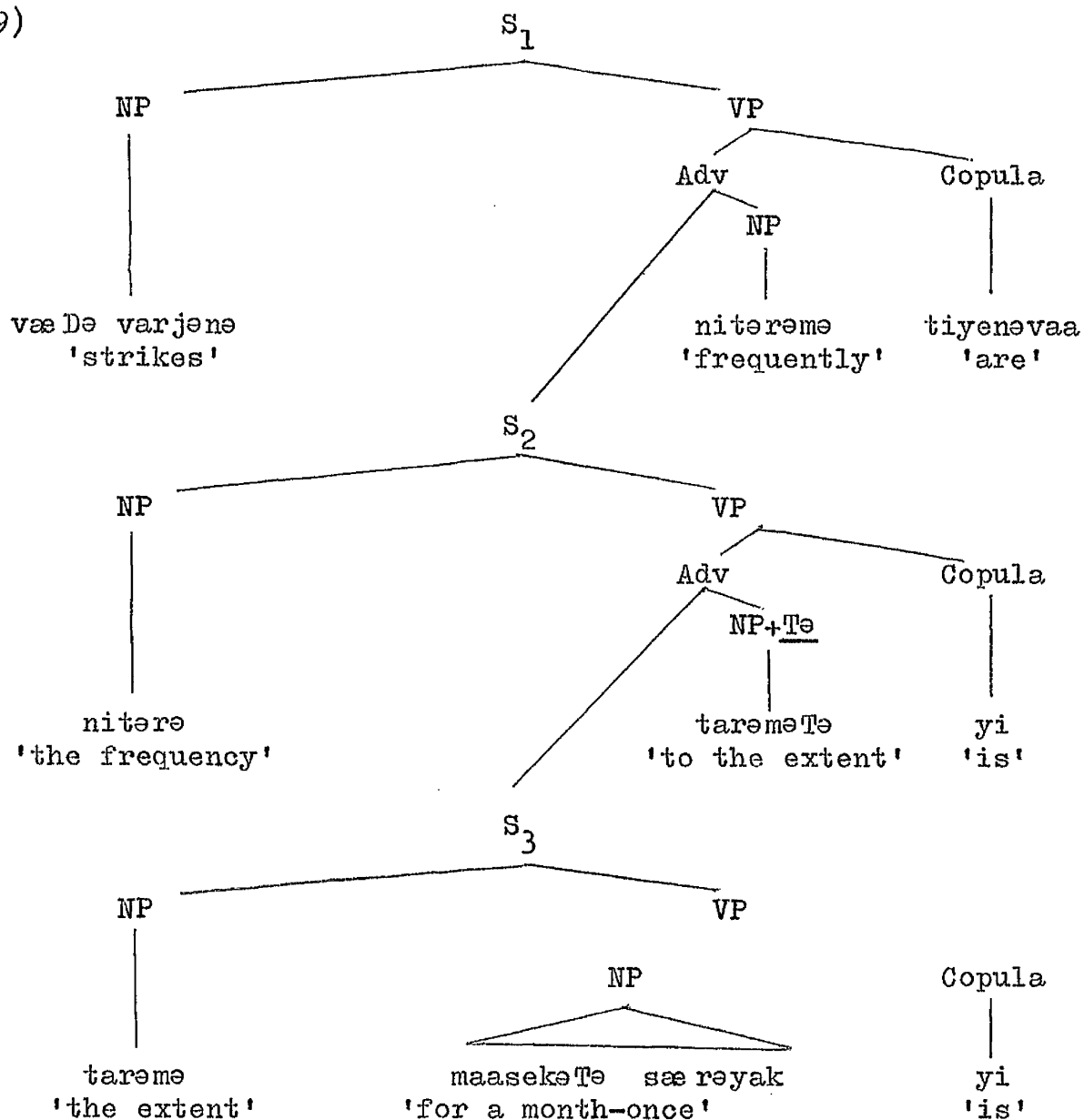
(Strikes occur as frequently as once a month.)

Thus an analysis of this type captures the distinction between Huddleston's 'explicitly' and 'implicitly' defined standards of comparison.

7. R. Huddleston (1967), p. 92.

8. R. Huddleston (1967), p. 93.

(79)



Comparative constructions may also occur with the item aDuven or aDuve (less) instead of væDiyen or væDiyə (more). (80) is such a sentence.

(80) padma sunilTə aDuven aḡDənevaa
'Padma' 'Sunil-to' 'less' 'is crying'

(Padma is crying less than Sunil.)

Such constructions may be derived by the same processes as constructions with væDiye (more).

The transformational rule of Comparative Reduction remains to be formulated. It has been suggested that it is some sort of abbreviatory device by which repeated items in the embedded sentence are deleted. That this process operates irrespective of word order is seen in the set of sentences (63)-(65). Both (64) and (65) are reduced to the ambiguous (63), presumably by a process which deletes the identical items in the embedded sentence. These items occur in different orders in (64) and (65).

Comparative Reduction can apparently reach down into only some types of subordinate clauses. (81) is derived from an underlying structure (82).

- (81) padma sunilvə dannevaaTə væDiye hoŋdeTə mame
 'Padma' 'Sunil' 'knows-to' 'more' 'well' 'I'
 sunilvə dannevaa
 'Sunil' 'know'

(I know Sunil better than Padma knows Sunil.)

- (82)
-
- S
 / \
 NP VP
 | / \
 | Adv NP V
 | / \
 | S NP+Te
 | / \
 | △ |
 | padma hoŋdeTə
 | sunilvə dannevaa
 | dannevaaTə væDiye
 | 'I' 'more than Padma knows Sunil' 'well' 'Sunil' 'know'

Here, Comparative Reduction is able to delete the repeated items sunilvə and dannevaa (knows), deriving the reduced sentence (83).

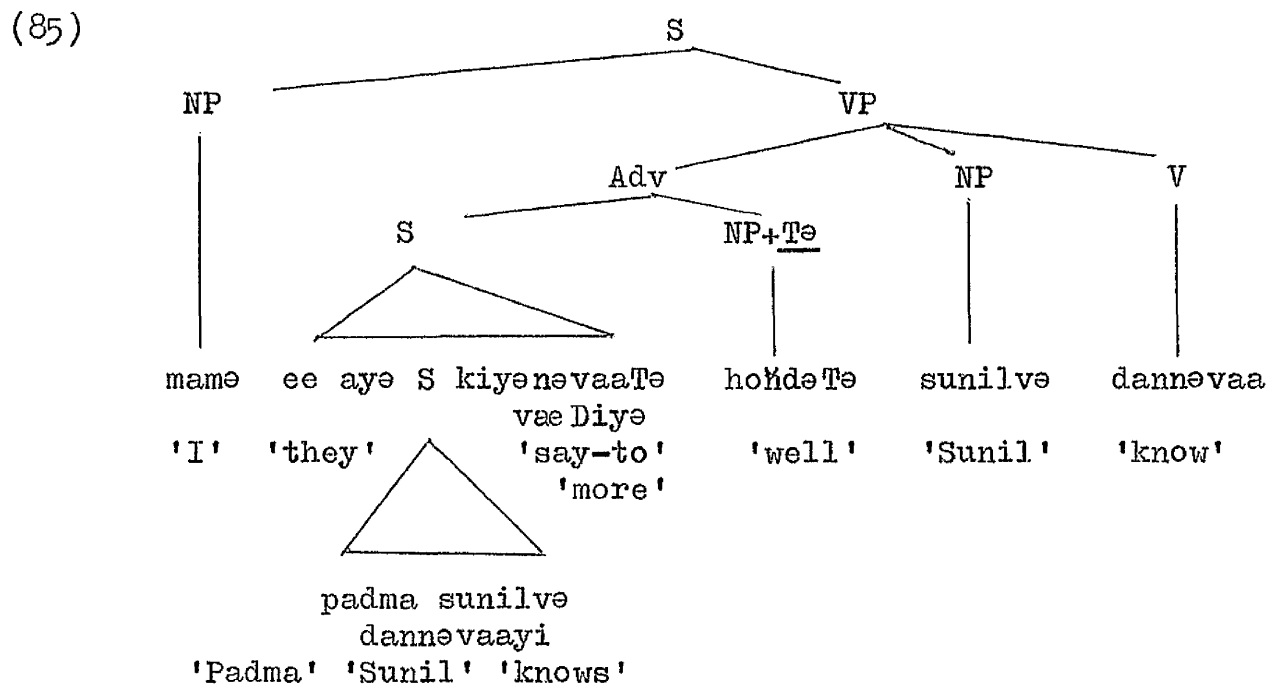
- (83) mame padmaTə væDiye hoŋdətə sunilvə dannevaa
 'I' 'Padma-to' 'more' 'well' 'Sunil' 'know'

(I know Sunil better than Padma.)

(84) is derived from an underlying structure like (85).

- (84) ee aye padma sunilvə dannevaayi kiyenevaaTə væDiye
 'they' 'Padma' 'Sunil' 'knows' 'say-to' 'more'
 hoŋdətə mame sunilvə dannevaa
 'well' 'I' 'Sunil' 'know'

(I know Sunil better than they say Padma does.)



In such cases, Comparative Reduction cannot delete the repeated items sunilvə and dannevaa (knows), apparently because they occur in an embedded sentence. Where these items are deleted, the ungrammatical (86) results.

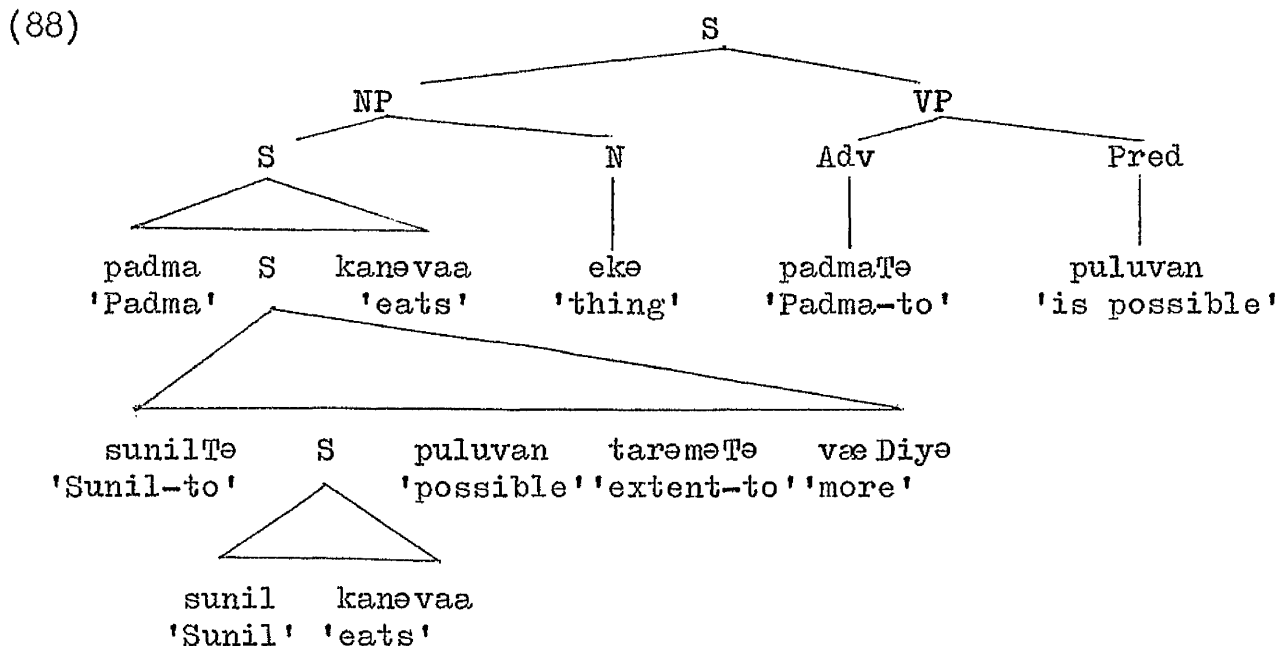
- (86) *ee aye padma kiyenēvāṭṭe vāḍḍiye hoḥḍeṭṭe mame
 'they' 'Padma' 'say-to' 'more' 'well' 'I'
 sunilvə dānnevāa
 'Sunil' 'know'

(*I know Sunil better than they say Padma.)

This restriction does not appear to hold for embedded sentences in modal constructions. (87), which contains two sentences with the modal adjective puluvaṇ (possible) has an underlying structure (88). (taṛemə (extent) cannot delete because puluvaṇ (possible) is an adjective.)

- (87) padmaṭṭe sunilṭe kanṇe puluvaṇ taṛeməṭṭe
 'Padma-to' 'Sunil-to' 'to eat' 'possible' 'extent-to'
 vāḍḍiye kanṇe puluvaṇ
 'more' 'to eat' 'is possible'

(Padma can eat more than (the amount) Sunil can eat.)



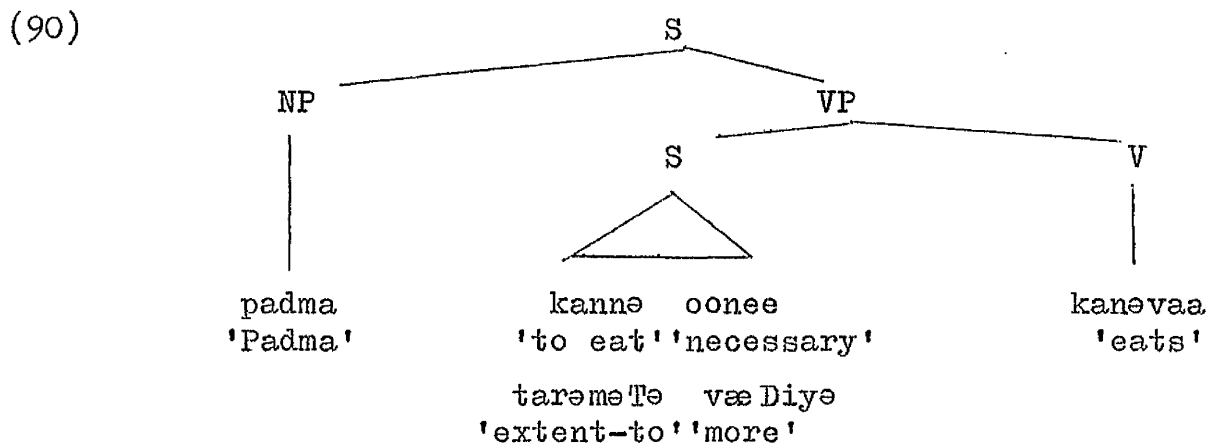
Here, even though the repeated item kanṇe (to eat) occurs in

an embedded sentence, Comparative Reduction can apparently delete it, thus deriving the grammatical (89).

- (89) padmaTə sunilTə puluvan tareməTə vae Diyə
 'Padma-to' 'Sunil-to' 'possible' 'extent-to' 'more'
 kanne puluvan
 'to eat' 'is possible'

(Padma can eat more than (the amount) Sunil can.)

This is true for the other modal adjectives as well. It is worth digressing for a moment to note that the modal adjective oonee (necessary) appears to be the only adjective in Sinhalese after which noun head deletion can occur. Where taremə (extent) is deleted in (90), oonee (necessary) takes on a verbal suffix vaa, and after Comparative Reduction applies, (91) is derived. Where taremə (extent) is not deleted, (92) results after Comparative Reduction.



- (91) padma ooneevaaTə vae Diyə kanəvaa
 'Padma' 'necessary-to' 'more' 'eats'

(Padma eats more than is necessary.)

- (92) padma oonee tareməTə vae Diyə kanəvaa
 'Padma' 'necessary' 'extent-to' 'more' 'eats'

(Padma eats more than the necessary amount.)

At present, it seems difficult to give any precise formulation of the Comparative Reduction rules. What is clear for the moment is that some such rules operate, that they delete repeated items irrespective of order, but that they are subject to the constraints noted above.

Summarising, it is suggested in this chapter that comparative constructions in Sinhalese contain underlying instances of tareme (extent) in both matrix and embedded sentences. Equative comparative constructions must be derived from such underlying structures, and there is some reason for suggesting that other types of comparatives are also similarly derived. It is shown that if such an analysis can be justified, it can account for a wide range of construction types. The analysis depends however on the possibility of ekə or Pro Deletion being extended in certain environments to delete the noun tareme (extent). This possibility is not examined in detail here.

It is also shown that a transformational rule of Comparative Reduction must exist in Sinhalese. The rule is not formally stated, but some constraints it is subject to are noted.

APPENDIX

This appendix consists of three parts.

Part I lists the phrase structure rules necessary for Sinhalese. It brings together the set of phrase structure rules outlined in Chapter 2 for simple sentences in Sinhalese, and others which were found to be necessary for complex sentence formation in Chapters 3, 4 and 9.

Part II presents an ordered list of the transformational rules discussed in the text. I have not investigated the problem of rule ordering in detail, but the order indicated here appears to be a viable one for Sinhalese. In the case of some rules only, the discussion in the text has already indicated that they must be ordered before certain others.

It was noted that Complementiser Placement a must precede Complementiser Placement b. By ordering Appositivisation before Relative Phrase Formation, it is possible to allow the latter rule to apply to sentences embedded, both in deep structure and transformationally, in noun phrases. Since the application of the Infinitive rule is dependent on the prior application of either Equi-NP Deletion or ekə Replacement, it must be ordered after both these. Since Verb Raising and not the Infinitive rule must apply obligatorily after Equi-NP Deletion in cases where the matrix sentence contains an abstract verb, Verb Raising must precede the Infinitive rule.

The optional ekə Deletion must be ordered before the obligatory Modifier rule, in order that both may not apply to the same deep structure.

Part III presents each of the transformational rules in turn. Each rule has already been formally stated elsewhere in the text, but further conditions on certain rules discussed in subsequent chapters are incorporated into the versions given in Part III.

PART IPHRASE STRUCTURE RULES

- (1) S \longrightarrow $\left\{ \begin{array}{c} yi \\ (ekko)-hari \end{array} \right\} S^n, \quad n \geq 2$
 (Ch. 9 p. 248 (21))
- (2) S \longrightarrow NP + VP (Post S)
 (Ch. 2 p. 47 (1))
- (3) Post S \longrightarrow (Neg) ($\left\{ \begin{array}{c} Q \\ Imp \end{array} \right\}$)
 (Ch. 2 p. 47 (2))
- (4) VP \longrightarrow $\left\{ \begin{array}{c} (Adv) \\ (Adv) \end{array} \right\} + \begin{array}{c} (NP) \\ + Pred \end{array} + V \}$
 (Ch. 2 p. 47 (3))
- (5) V \longrightarrow Verb Root + Tense
 (Ch. 2 p. 47 (4))
- (6) Tense \longrightarrow $\left\{ \begin{array}{c} Past \\ Non-Past \end{array} \right\}$
 (Ch. 2 p. 47 (5))
- (7) Pred \longrightarrow ($\left\{ \begin{array}{c} NP \\ Adj \\ Adv \end{array} \right\}$) + Copula
 (Ch. 2 p. 47 (6))

$$(8) \quad \text{Copula} \longrightarrow \left\{ \begin{array}{c} \underline{yi} \\ \underline{in} / \underline{tiye} \\ \underline{ve} \end{array} \right\}$$

(Ch. 2 p. 47 (7))

$$(9) \quad \text{Adv} \longrightarrow \left\{ \begin{array}{l} \text{Adverb} \\ \text{NP} + \left\{ \begin{array}{c} \underline{Te} \\ \underline{ee} \\ \underline{en} \end{array} \right\} \\ \text{NP} + \text{Postposition} \end{array} \right\}$$

(Ch. 2 p. 47 (8))

$$(10) \quad \text{NP} \longrightarrow \underline{yi} \text{ NP}^n, \quad n \geq 2$$

(Ch. 9 p. 252 (34))

$$(11) \quad \text{NP} \longrightarrow \left\{ \begin{array}{l} \text{S} + \text{NP} \\ \text{Det} + (\text{S}) + \text{N} \end{array} \right\}$$

(Ch. 3 p. 98 (6) and Ch. 4 p. 139 (14). The rule in Ch. 4 makes Ch. 2 p. 47 (9) redundant.)

$$(12) \quad \text{Det} \longrightarrow \left\{ \begin{array}{c} \text{Def} \\ \text{Indef} \end{array} \right\}$$

(Ch. 2 p. 47 (10))

$$(13) \quad \text{Def} \longrightarrow \underline{\emptyset}$$

(Ch. 2 p. 47 (11))

$$(14) \quad \text{Indef} \longrightarrow \left\{ \begin{array}{c} \underline{k} \\ \underline{\emptyset} \end{array} \right\},$$

where k is selected for singular nouns, and ∅ for all others.

(Ch. 2 p. 48 (12))

PART IIRULE ORDERING

- | | | |
|------|---|-------|
| (1) | Conjunction Reduction | (OPT) |
| (2) | Conjunction Copying | (OBL) |
| (3) | Demonstrative Particle Segmentalisation | (OBL) |
| (4) | K/M Particle Segmentalisation | (OBL) |
| (5) | Determiner Attachment | (OBL) |
| (6) | Complementiser Placement <u>a</u> | (OPT) |
| (7) | Complementiser Placement <u>b</u> | (OBL) |
| (8) | Appositivisation | (OPT) |
| (9) | Relative Phrase Formation | (OBL) |
| (10) | Determiner Particle Shift | (OPT) |
| (11) | Demonstrative Particle Shift | (OPT) |
| (12) | Equi-NP Deletion | (OBL) |
| (13) | <u>ekə</u> Replacement | (OPT) |
| (14) | Verb Raising | (OBL) |
| (15) | <u>ekə</u> Deletion | (OPT) |
| (16) | Infinitive | (OBL) |
| (17) | Modifier | (OBL) |
| (18) | Neg Placement | (OBL) |
| (19) | Case Marking | (OBL) |
| (20) | Number and Case Agreement | (OBL) |
| (21) | Unspecified NP Deletion | (OPT) |
| (22) | Pseudo-Cleft | (OPT) |
| (23) | Scrambling | (OPT) |

PART IIITRANSFORMATIONAL RULES(1) Conjunction Reduction

$$SD : \left\{ \frac{yi}{(ekko)-hari} \right\} - [X-[Z_1]_Y-X]_S - [X-[Z_2\dots n]_Y-X]_S$$

1 2 3 4 5 6 7

\Rightarrow OPT

$$SC : \quad 0 \quad \quad 2 \quad 1+3+6 \quad 4 \quad \quad 0 \quad 0 \quad 0$$

$$\text{Condition : } \frac{a}{b} \quad \begin{matrix} 2 = 5 \\ 4 = 7 \end{matrix}$$

(Ch. 9 p. 255 (40))

(2) Conjunction Copying

$$SD : \quad X - \left[\left\{ \frac{yi}{(ekko)-hari} \right\} - Y - Y^n \right]_Y - X$$

1 2 3 4 5 6

\Rightarrow OBL

$$SC : \quad 1 \quad \quad 2 \quad 0 \quad \quad 4+3 \quad 5+3 \quad \quad 6$$

(Ch. 9 p. 248 (23))

(3) Demonstrative Particle Segmentalisation

$$\text{SD : } \quad X \quad - \quad \left[\begin{array}{c} \text{Det} \\ +\text{Dem} \end{array} \left\{ \begin{array}{c} \text{I} \\ \text{II} \\ \text{III} \end{array} \right\} \right] \quad - \quad X \quad \Rightarrow \quad \text{OBL}$$

1 2 3

$$\text{SC : } \quad 1 \quad \left[+\text{Dem} \left\{ \begin{array}{c} \text{I} \\ \text{II} \\ \text{III} \end{array} \right\} \right] \quad [\text{Det}] \quad 3$$

(Ch. 2 p. 78 (97))

(4) K/M Particle Segmentalisation

$$\text{SD : } \quad X \quad - \quad \left[\begin{array}{c} \text{Det} \\ +\text{K/M} \end{array} \right] \quad - \quad \left[\begin{array}{c} \text{N} \\ \text{Singular} \\ \text{Human} \\ \text{etc.} \end{array} \right] \quad - \quad X \quad \Rightarrow \quad \text{OBL}$$

1 2 3 4

$$\text{SC : } \quad 1 \quad \left[+\text{K/M} \begin{array}{c} \text{Singular} \\ \text{Human} \\ \text{etc.} \end{array} \right] \quad [\text{Det}] \quad 3 \quad 4$$

(Ch. 2 p. 80 (101))

(5) Determiner Attachment

$$\text{SD : } \quad X \quad - \quad \left\{ \begin{array}{c} \text{Def} \\ \text{Indef} \end{array} \right\} \quad - \quad \text{N} \quad - \quad X \quad \Rightarrow \quad \text{OBL}$$

1 2 3 4

$$\text{SC : } \quad 1 \quad 0 \quad 3+2 \quad 4$$

(Ch. 2 p. 75 (84))

(6) Complementiser Placement a

SD : X - [S - ekə]_{NP} - X \Rightarrow OPT

1 2 3 4

SC : 1 [kavudə-2+ekə-kiyenevaa]_S 3 4

Condition : kavudə, kiyenevaa are semantically empty

(Ch. 4 p. 152 (44); the condition given here is stated informally on the same page.)

(7) Complementiser Placement b

SD : X - [S - ekə]_{NP} - X \Rightarrow OBL

1 2 3 4

SC : 1 2+(yi) 3 4

Condition : 2-3 is object NP of kiyə (say)

(Ch. 4 p. 147 (35))

(8) Appositivisation

SD : [[X-NP-X-yi]_S - [X-NP-X-yi]_S - Sⁿ]_S \Rightarrow OPT

1 2 3 4 5 6 7 8 9

SC : 5 [1 2 3 0] + 6 7 0 9

Condition : a 2 = 6

b 2 refers to a uniquely determined object,
or has a Det marked [+K/M] or / and [+Dem]

(Ch. 3 p. 118 (68))

(9) Relative Phrase Formation

SD : X - [[X - NP - X]_S - NP]_{NP} - X

 1 2 3 4 5 6

⇒ OBL

SC : 1 2 0 4 5 6

Condition : a 3 = 5
 b 2-4 does not have a nominal predicate

(Ch. 3 p. 99 (9); condition b is discussed
in Ch. 3 p. 110.)

(10) Determiner Particle Shift

SD : X - S - Det Prt - N - X ⇒ OPT

 1 2 3 4 5

SC : 1 3 2 4 5

Condition : 2-4 is a NP

(Ch. 3 p. 107 (30))

(11) Demonstrative Particle Shift

SD : X - [Dem Prt] - [K/M Prt] - X ⇒ OPT

 1 2 3 4

SC : 1 3 2 4

(Ch. 2 p. 82 (108))

(12) Equi-NP Deletion

SD : X - [NP - X]_S - X \Rightarrow OBL

1 2

SC : 0 2

Condition : 1 is identical with the nearest NP in
the S being processed which does not
dominate 1

(Ch. 4 p. 157 (62))

(13) ekə Replacement

SD : X - [[NP - VP]_S - ekə]_{NP} - X

1 2 3 4 5

\Rightarrow OPT

SC : 1 0 3 2 5

(Ch. 4 p. 166 (83))

(14) Verb Raising

SD : [X - [[X - V]_S - ekə]_{NP} - X - [V_{+Pro}]_S

1 2 3 4 5 6

\Rightarrow OBL

SC : 1 2 0 4 5 6+3

(Ch. 6 p. 200 (22))

(15) ekə Deletion

$$\text{SD : } X - [S - \underline{\text{eke}}]_{\text{NP}} - X \Rightarrow \text{OPT}$$

1 2 3 4

SC : 1 2 0 4

Condition : a cannot apply if 2 contains a non-verbal predicate, except where the main verb of the matrix S is kiye (say)

b obligatory when Equi-NP Deletion has removed subject NP of 2; when main verb or predicate of matrix S is an abstract verb, *kiye* (say), or *tamayi/nevee* (EMPH)

(Ch. 4 p. 143 (26); condition a is stated informally on the same page; condition b is discussed in Ch. 4 p. 157, Ch. 6 p. 200 and Ch. 7 p. 212, Ch. 4 p. 14, and Ch. 8 p. 22 respectively.)

(16) Infinitive

$$SD : \quad x - [x - v_{finite}]_S - x \Rightarrow OBL$$

1 2

SC : 1 $\left[\begin{matrix} 2 \\ \text{Infinitive} \end{matrix} \right]$

Condition : Equi-NP Deletion or eke Replacement has removed subject NP of 1-2

(Ch. 4 p. 168 (86))

(17) Modifier

$$SD : \quad X - \left[\left[X - \left\{ \begin{array}{c} V \\ \text{Pred} \end{array} \right\} \right]_S - \left\{ \begin{array}{c} NP \\ N \end{array} \right\} \right]_{NP} - X \Rightarrow OBL$$

1 2 3

SC : 1 [2 Modifier] 3

(Ch. 3 p. 100 (10))

(18) Neg Placement

$$\begin{array}{rcll}
 \text{SD :} & X & - & \left\{ \begin{array}{c} V \\ \text{Pred} \end{array} \right\}_{\text{finite}} - (\text{Neg}) - \left(\left\{ \begin{array}{c} Q \\ \text{Imp} \end{array} \right\} \right) \Rightarrow \text{OBL} \\
 & 1 & & 2 \qquad \qquad \qquad 3 \qquad \qquad \qquad 4 \\
 \text{SC :} & 1 & & \left[\begin{array}{c} 2 \\ \text{Incomplete} \end{array} \right] + 3 \quad 0 \qquad \qquad \qquad 4 \\
 & & & (\text{Ch. 2 p. 91 (139)})
 \end{array}$$

(19) Case Marking

$$\begin{array}{rcll}
 \underline{a} & \text{SD :} & [\text{NP} - X]_S & \Rightarrow \text{OBL} \\
 & & 1 \quad 2 & \\
 & \text{SC :} & 1 + \underline{\emptyset} \quad 2 & \\
 \\
 \underline{b} & \text{SD :} & [X - \text{NP} - V]_{VP} & \Rightarrow \text{OBL} \\
 & & 1 \quad 2 \quad 3 & \\
 & \text{SC :} & 1 \quad 2 + \left\{ \begin{array}{c} \underline{ve} \\ \underline{nve} \\ \underline{\emptyset} \end{array} \right\} 3 &
 \end{array}$$

Condition : ve is selected where 2 is singular and animate, nve where it is plural and animate, and ∅ where it is inanimate

(Ch. 2 p. 50 (14))

(20) Number and Case Agreement

$$\begin{array}{rcll}
 \text{SD :} & X & - & \left[\begin{array}{c} \text{NP}_{\text{Nominative}} \\ \underline{+}\text{Singular} \end{array} \right] - X - \left[\text{NP}_{\text{Pred}} \right] - X \Rightarrow \text{OBL} \\
 & 1 & & 2 \qquad \qquad \qquad 3 \qquad \qquad \qquad 4 \qquad \qquad \qquad 5 \\
 \text{SC :} & 1 & & 2 \qquad \qquad \qquad 3 \quad \left[\begin{array}{c} 4 \\ \text{Nominative} \\ \underline{+}\text{Singular} \end{array} \right] 5
 \end{array}$$

Condition : 2 and 4 are constituents of the same S

(Ch. 2 p. 60 (35))

(21) Unspecified NP Deletion

SD : [kavudə - X]_S \Rightarrow OPT

1 2

SC : 0 2

Condition : obligatory when 1-2 is embedded in matrix S
with main verb [INVOL]

(Ch. 4 p. 150 (41); the condition given here is discussed
in Ch. 6 p. 201.)

(22) Pseudo-Cleft

SD : [X - Y - X - { V
Pred }]_S \Rightarrow OPT

1 2 3 4

SC : 1 0 3 [⁴Incomplete] _{2+yi}

Condition : Y is a major constituent

(Ch. 8 p. 237 (39))

(23) Scrambling

SD : X - { NP
V
Pred
Adv } - { NP
V
Pred
Adv } - X \Rightarrow OPT

1 2 3 4

SC : 1 3 2 4

Condition : 2 and 3 are major constituents of one S, and
this S is not an embedded or conjoined S

(Ch. 2 p. 54 (27))

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