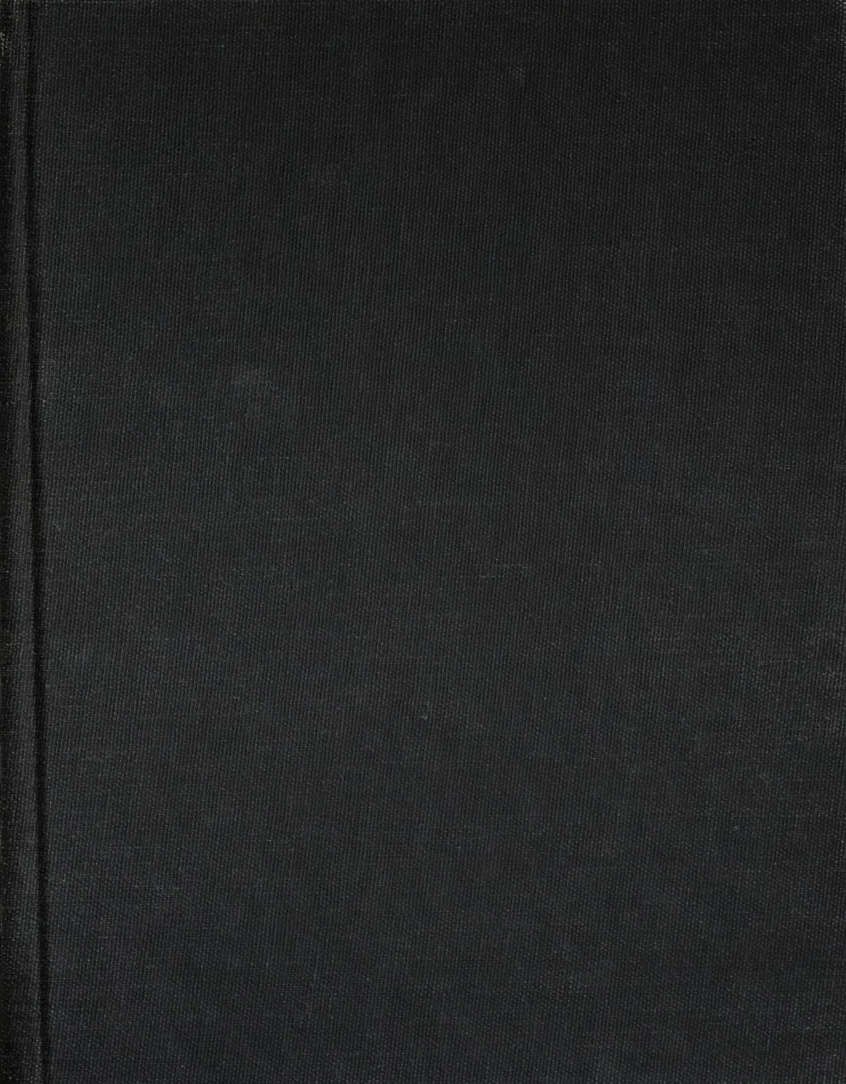
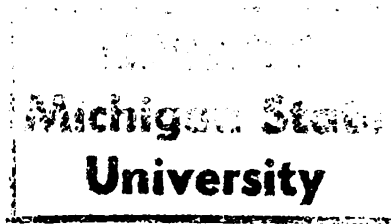






THESIS

This is to certify that the
dissertation entitled
ASPECTS OF THE SIMPLE CLAUSE IN MALAGASY:
A STRATIFICATIONAL APPROACH

presented by

Michael Eric Bennett

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A STRATIFICATIONAL APPROACH

By

Michael Eric Bennett

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submitted to
Michigan State University
in partial fulfilment of the requirements
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1986

ABSTRACT

ASPECTS OF THE SIMPLE CLAUSE IN MALAGASY: A STRATIFICATIONAL APPROACH

By

Michael Eric Bennett

This work examines aspects of the syntax and semantics of Malagasy, an Austronesian (= Malayo-Polynesian) language spoken on the island of Madagascar. Malagasy is one of the few attested languages with VOS basic word order. This dissertation (1) presents a structural sketch of the Malagasy simple clause, including basic word order, case marking, and the basics of thematization and voice; (2) examines the distribution of the reflexive pronoun tena and related expressions; and (3) accounts for the co-occurrence restrictions between reflexives expressions, thematization, and voice.

Chapter 1 provides a brief overview of the language, including its genetic and typological characteristics. It also includes a discussion of previous scholarship, ranging from very early descriptive grammars to the pedagogical and the often linguistically sophisticated and technical works of more recent date. The chapter concludes with an introduction to stratificational theory, which serves as the theoretical foundation of the description.

Chapter 2 presents the structure of the simple clause from both lexological ("surface") and semological ("deep") perspectives. Word order possibilities of clause constituents are discussed, as is the

internal structure of the constituents themselves. The clause-initial theme position is examined, as are the three voices of Malagasy: active, passive, and circumstantial. Voice is analyzed as an expression of semological focus.

Chapter 3 deals with reflexive expressions and their interaction with theme and voice. It is shown that the reflexive pronoun tena can occur only in the lexotactic object position, and that reflexive expressions in oblique constituents are obligatorily possessed. Several classes of event sememes ("verbs") are examined for their co-occurrence restrictions vis-à-vis patients, as well as for their behavior with respect to transitivity marking. Brief comments concerning alienable versus inalienable possession are also given. The major finding concerning the interaction of reflexive expressions and voice is that reflexive expressions cannot be focused, since a focused element is realized as the lexotactic subject, an inadmissible position for reflexives.

The final chapter, Chapter 4, summarizes the findings of the dissertation, relates them to various theoretical issues in linguistics, and suggests avenues for further research.

To my parents and grandparents, inspirations all.

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1 PRELIMINARIES

1.0 Introduction

This work examines certain aspects of the syntax and semantics of Malagasy, an Austronesian (Malayo-Polynesian) language spoken by some 8 million people on the island of Madagascar, now the Democratic Republic of Madagascar. The language is more narrowly classified as Western Indonesian, thus linking it fairly closely with such better-known languages as Indonesian and Tagalog, although its precise genetic affiliations are still a topic of debate.¹ There are eighteen major dialects of Malagasy, all apparently mutually intelligible (Dyen 1971: 211). This work uses data exclusively from the Merina dialect (also known as Hova), which may be considered the national standard.

Malagasy has evinced some interest among linguists working in the area of typology because it is one of the few attested languages whose basic word order seems to be VERB OBJECT SUBJECT (VOS).² Pullum 1977 examines several other languages purported to have basic VOS word order and concludes that they can be reanalyzed as having been derived from some other underlying word order which is not VOS. He maintains, however, that "There happens to be a case of a language which is quite clearly not amenable to reanalysis along any of the lines which have been discussed. This is Malagasy" (p. 258). Thus he accepts VOS as the basic word order of this language, as is done in this work.³

With respect to other facets of its structure, Malagasy is typologically similar to VSO languages: adjectives and numerals generally follow the head noun, the possessor follows the possessed, and prepositions occur rather than postpositions. In addition, the verb is

inflected for tense in most instances, but not for person or number. These and other topics are discussed at greater length in Chapter 2.

1.1 Aims and Limitations of this Work

This section presents a brief overview of the aims and limitations of this dissertation; more detail on specific objectives and lacunae is given in later sections.

The major aims of this study are as follows. First, a structural sketch of the Malagasy simple clause is presented (Chapter 2); this sketch includes the basics of word order, case marking, and the "highlighting" phenomena of verb voice and a "thematic" construction which allows certain clause constituents to occur before the normally clause-initial verb.⁴

Second, portions of the structural sketch are elaborated to account for the behavior of reflexive expressions (Chapter 3). An account is given of the distribution of the reflexive pronoun tena, which serves as the direct object, versus the reflexive phrase ny tenany, which occurs in oblique clause constituents (Randriamasimanana 1981: 152). In addition, the interaction of reflexive expressions with the highlighting system is described. Specifically, the description accounts for the restriction of reflexive expressions to non-subject positions of the clause, with or without thematization.

As with any work of this nature, many interesting details have had to be omitted because they either do not bear on the central issues or are of such a complex nature that space limitations preclude their examination. Too, in many cases the exact analysis of a particular phenomenon, or even the information on what constitutes the phenomenon, is

unclear. Sources are in several instances at variance with one another, or the data is simply lacking. This has resulted in the omission of various points, some of which are mentioned below.

First, morphology has been almost completely ignored; Malagasy has a rich morphology which is extensively described in many works (e.g., Garvey 1964b, Rajemisa-Raolison 1966, and Malzac 1960). To include morphology in this work would have increased its size to unwieldy and, ultimately, inefficient proportions, since the main topic is syntax and linguistic semantics. The omission of the morphology of the verbal voices is perhaps the most debatable point, but since this subject is covered in intricate detail in Randriamasimanana 1981, this omission was deemed acceptable.

Next, only simple verbal clauses are considered here; complex sentences (including causative constructions and embedded structures) are not discussed in any significant way.

Lastly, and most importantly, the sketch of Malagasy simple clause structure given here is just that—a sketch. Many constructions not bearing on the main issues have been left unmentioned, and only the barest minimum of the internal structure of phrases is provided. To use a metaphor from systemic linguistics, the description of simple clause structure in this work is not very "delicate"; it is, however, sufficiently "robust" to serve as an adequate background for the proposed analyses of highlighting phenomena, reflexive expressions, and their interaction.

The theoretical framework of this dissertation is that which has come to be known as (cognitive-) stratificational linguistics. The "classic" version of this framework is described in Lockwood 1972, and

some familiarity with this work is presumed. For readers not having access to this book, a brief introduction to the broad theoretical points and to the notation system currently in use is provided below.

1.2 Previous Scholarship on Malagasy

Here is presented a discussion of earlier studies of Malagasy which were consulted in the course of preparing this work. Extensive discussion is limited to those works which proved most useful, the others being mentioned primarily in the interest of completeness. In addition, detailed review of points especially pertinent to this dissertation is deferred in several cases to later chapters.

1.2.1 "Early" and "Traditional" Works

Works cited in this section were published before 1950, and are for the most part lacking in syntactic (though not necessarily morphological) detail. There are almost always tables of pronouns, verb forms, and demonstratives, and in some instances extensive discussions of tense and aspect, adjectives, adverbial expressions, and verb voices. This type of presentation is exemplified by Ferrand 1903, Parker 1883, Julien 1904, and Gerbinis 1949. Richardson's dictionary (1885) is probably the most helpful, containing as it does a concise but accurate introduction to the language, an introduction which suffers only from its exclusive treatment of phonology and morphology to the virtual exclusion of syntax.

None of the works cited here contain any mention of reflexive expressions, and discussions of highlighting phenomena such as voice are not well-developed with respect to word order at the clause level.

1.2.2 "Contemporary" French-language Works

In the sense intended here, "contemporary" covers the ground from 1950 to the present. Because Madagascar was a colonial possession of France for so long, francophone scholars have had ample opportunity (and reason) for continuing to produce and refine linguistic descriptions of Malagasy. With the exception of Faublée 1954, which is really practically nothing more than a pamphlet-length hodgepodge of loosely organized examples, the works mentioned in this section are more sophisticated in their presentations and tend for the most part to use more modern-sounding terminology, albeit of a European structuralist type.

Although not extensively used as a resource for the present study, Dahl 1951 does contain some discussion of the passives in Malagasy, providing diachronic as well as synchronic information. For the most part, however, there is little of great value concerning syntactic phenomena, and nothing on reflexives.

Domenichini-Ramiaramanana 1977 is a short but relatively good summary of the main features of the language, covering phonetics, phonology word-formation, and clause structure. There is no extensive treatment of morphology, but considering the plethora of morphological descriptions available elsewhere, this is perhaps a boon rather than a bane.

Dez 1980 offers fairly comprehensive coverage of major syntactic and morphological phenomena; he discusses the structure of words, phrases, clauses, and sentences, but includes no mention of reflexives.

Rajemisa-Raolison 1966 is a French-language introduction to Malagasy for young francophone Malagasy students. It includes discussion of grammatical categories, morphological matters, and some syntactic patterns, along with translation exercises (French to Malagasy), which

unfortunately are not keyed. There are many examples of the topics covered, which compensates somewhat for its lack of coverage vis-à-vis word order at the clause level.

Malzac 1960 is a quite detailed presentation of phonology, morphology, and syntax; although the discussion is brief, he does mention tena as a reflexive pronoun and provides examples of its use (Sections 101 and 264).

Rajaona 1972 contains a wealth of syntactic detail in its nearly 800 pages, including extensive discussion of word order in relation to the voice system and role relations.

1.2.3 English-language Pedagogical Works

Stark 1969 and Garvey 1964a are both textbooks, and hence in many cases do not cover as many details as those works cited above. Both are well-organized, with some exceptions. Stark does not consistently indicate phonemic stress on related word forms (where it can vary), for example. Her book is not as linguistically sophisticated as Garvey's (which was, after all, produced under the auspices of the Center for Applied Linguistics), but provides a wide range of vocabulary, copious cultural notes, and a master table of verb forms.

Garvey 1964a devotes more attention than Stark to pronunciation, going into such matters as vowel devoicing and glide-formation; in addition, she marks stress on all example sentences and vocabulary items, as well as on all verb forms in table. Garvey's lessons follow a well-known American model: a dialogue concerning a common social situation, followed by a discussion of various aspects of pronunciation and grammar, followed in turn by structured drills on grammatical points.

Unlike Garvey, Stark provides translation exercises (English-to-Malagasy and Malagasy-to-English) with a key; she does not, however, provide dialogues or structured drills.

1.2.4 Other Contemporary English-language Works

Garvey also produced a structural sketch of Malagasy (1964b). While not an in-depth study, it is nonetheless an adequate overview of the major points of phonology, morphology, and syntax, all presented in a more-or-less theory-neutral American structuralist framework. This seems to be the only book-length treatment of Malagasy until the appearance of Randriamasimanana 1981, which is discussed below. In the intervening years, however, a series of articles dealing with various aspects of the language appeared, the first being Dyen 1971.

Dyen's work is primarily a brief review of the literature and a discussion of the history and relation of the language with respect to other Austronesian languages. It also contains a few tidbits of phonological and grammatical information, though nothing of great import for the present study.

The main purveyors of information on Malagasy from a modern American perspective are Edward Keenan and Elinor Ochs, both of whom did fieldwork in Madagascar and who have published a series of articles (Edward Keenan 1976a, 1976b, 1978; Elinor Keenan 1976) culminating in Keenan and Ochs 1979. The articles by Edward Keenan and Keenan and Ochs briefly discuss the reflexive pronoun tena and its syntax.

Randriamasimanana 1981 provides the most information on Malagasy reflexives, although that work is primarily concerned with causative

expressions. He also has a chapter on passivization. Specific details of his work in both these areas are given in Chapter 2 and 3 of this work.

This, then, is a listing of the works which have been consulted in the course of preparing this study; it is also appropriate at this point to mention that a native speaker of Malagasy was briefly available as a consultant, a fortuitous collaboration that allowed the resolution of far fewer questions than it raised.

1.3 Theoretical Orientation

1.3.1 Basic Principles of Stratificational Theory

Strictly speaking, any linguistic theory which recognizes more than one descriptive level (however defined and justified within that school's framework) can be said to be a stratificational theory. In practice, however, the terms "stratificational theory" and "stratificational linguistics" are usually reserved for that theoretical position stemming primarily from the works of Sydney Lamb and H.A. Gleason, Jr. (e.g., Lamb 1966b and Gleason 1964).⁵

This position is relatable in large part to the work of Hjelmslev (Hjelmslev 1961, 1970; Fischer-Jørgensen 1975: 297-319; Lamb 1966a), although with several modifications. One topic of debate is the nature and number of strata needed to account for linguistic phenomena. Lamb in particular has vacillated with respect to this issue, as inspection of Lamb 1971, 1983, and his work in press will show.

It is not the intention here to discuss the theoretical and notational minutiae of stratificational thought; for such details the reader is referred to the excellent introductory articles by Gleason

(1964) and Sullivan (1980), and to Lamb 1966b and Lockwood 1972, both of which cover theoretical foundations and notation. Lockwood 1972 is usually considered the standard text for stratificational theory. Because the reader may not be familiar with the theory or have ready access to the works cited here, however, some of the major features of the theory will now be discussed.⁶

Perhaps the fundamental tenet of stratificational theory is that language is best conceived of and described as a network of relationships, as originally suggested by Hjelmslev (1961); there are no substantive "elements" in the linguistic system, although the system does indeed connect to substance at its peripheries (e.g., articulatory and auditory mechanisms, and for written language, kinesthetic and visual apparatus and graphic substance). Thus the description of language in the popular metaphor of linguistic units which change or move is considered by stratificationalists as inappropriate. For practical purposes, of course, stratificational linguists talk about language and linguistic analyses as if there were such substantive things as morphemes, phonemes, and so on; this practical necessity should not be allowed to obscure the basic non-substantive, relational nature of language.

The purpose of the linguistic network of relationships is to link the content (or conceptual) realm with the realm of expression. Since the nature of these two realms is quite disparate, linguistic relations cannot be simple, one-to-one correspondences between concepts and expressions. Rather, the two realms are related through the mediating properties of a series of levels, or strata, within language. These strata can be thought of as accommodating the structure of content to

the structure of expression (during encoding) and vice versa (during decoding). Furthermore, the existence of stylistic and social variation in language provides evidence for the interaction of the conceptual system with language at different points within the linguistic system proper (Herrick 1984, M.E. Bennett 1980, The Second Foundation 1979). Figure 1.1 depicts the basic stratificational characterization of language and its relation to the conceptual system and expression.

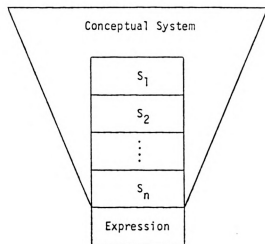


Figure 1.1: A generalized model of the relation between the conceptual system, language, and expression (adapted from Lockwood 1981).

In this figure, $S_1, S_2, \dots, S_n$ represent the stratal systems hypothesized to mediate between the conceptual system and expression; as previously mentioned, the exact number of such strata is under debate, and is best resolved through the examination and analysis of large bodies of linguistic data. Thus there is no theory-specific dogma concerning the number of strata within the linguistic system, and different

language types may have differing numbers of strata.

In stratificational theory, the same types of linguistic relationships are assumed to exist across all basic areas of linguistic structure: semantics, grammar, and phonology. Determining simplicity among competing analyses is thus rendered somewhat easier than in other theoretical frameworks. It is often the case, for example, that a simplification in one part of a linguistic description entails a concomitant complication in a different part of the system; since in stratificational theory the same descriptors are used everywhere, however, the analyst can play such simplifications and complications against each other until the greatest overall simplicity is achieved.⁷

In this dissertation, a single stratal system is held to consist of a tactic pattern and its associated sign pattern and alternation patterns. The tactic pattern (or tactics) defines the well-formed combinations of linguistic entities at a given level of description; it is essentially the "syntax" of that level. It also provides the conditioning environments for alternations between linguistic relations, the locus of such alternations most commonly being the alternation patterns above the tactics (toward the conceptual system) or below it (toward expression), although some alternations can also occur in the sign pattern (Lockwood 1978: 226-227). The sign pattern of a stratal system relates singularly relationships at one level of language to combinations or sequences of relationships on the next lower level, and vice versa.

These preliminary comments are expanded upon in the next section, which centers on the nature of the strata dealing with semantic and syntactic phenomena. The graphic notation and an algebraic analogue to

it are used in the development of the sketch of the Malagasy clause provided in Chapter 2; it is hoped that the gradual introduction of the notation system will make it more palatable to the uninitiated reader.

1.3.2 Stratificational Semology and Lexology

In previous sections rather loose reference has been made to "semantics" and "syntax." This section discusses more precisely what these words mean in the stratificational framework in general and in the stratificational model used in this work in particular.

Building on the Hjelmslevian opposition of content and expression, Sullivan (1980) proposes that "syntactic" phenomena as treated in most linguistic theories all deal with the content-oriented portion of the linguistic system. He furthermore subdivides the content portion as shown in Figure 1.2.

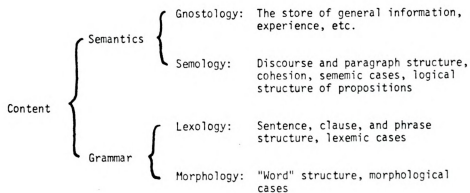


Figure 1.2: The content side of language (from Sullivan 1980).

Sullivan distinguishes between gnostology (general, or non-linguistic, semantics) and semology (linguistic semantics):

The linguistic processing of an utterance or text produces sememic outputs which are inputs to the general semantic store. This, in turn, processes these inputs to deduce the relevance and greater significance (i.e., immediate and general meaning) of the utterance. (p. 306)

In his framework, it is the general semantic store, or gnostology, which is responsible for determining such things as truth value, extension, entailment, and pragmatic and social meaning.⁸

In contrast, the semology has as its domain the structure of various predication (proposition) types and the relations between them. It deals with such things as semantic compency (Ikegami 1970), case frames (Vijchulata 1978), the structure of spatial and temporal expressions (D.C. Bennett 1975; Sullivan 1984a, 1986), raising (Sullivan 1977), interclausal relations (M.E. Bennett 1983), and passivization (Sullivan 1976, Lockwood in press).⁹

The most important component of the semology is the semotactics, which specifies the well-formedness of various combinations of semantic components, the sememes. Among other things, the semotactics must account for the structure of predications, as mentioned above. Lockwood (1972: 142) describes this structure as follows:

The basic structure of a predication includes an event sememe accompanied by one or more participants in that event....

Event sememes are divided into classes according to the number and type of participants which may accompany them.

Among the participant types which a predication may contain, each marked with an identifying sememe of its own, are agent, goal, recipient, instrument, causer, and beneficiary. Also,

there are various circumstantial attributes to the predication such as time, location, and manner.

Predications may also involve sememes of tense, aspect, negation, modality, and so on. In addition, with reference to discourse and pragmatic factors which obtain within and among predications, there are sememes of focus, emphasis, information value (e.g., new vs. given), illocutionary force, and so on.¹⁰

Within the semotactics, sememes are considered to be hierarchically, but not linearly, arranged with respect to one another; linearization is the function of other strata.¹¹ One such stratum is the lexology, which in the stratificational framework assumed here deals with surface syntactic phenomena such as word order, concord, certain aspects of case marking, and so on.

The lexological counterpart to the semotactics is the lexotactics, which defines the well-formedness of combinations of lexemes, the lexological counterpart to sememes. Most lexemes bear a direct relationship to one or more sememes, but there can also be instances of syntactically determined lexemes which are required by certain syntactic structures but which have no direct connection to the semology. The lexeme do in certain English question and negative constructions is often cited as an example of this phenomenon (Lockwood 1972: 28).

Semology and lexology are related by a mapping relation referred to as realization, a relationship which can be considered a type of "projection principle" (Marantz 1984: 293-304) which relates the strata of language. The realizational portion of a linguistic system employs the same fundamental types of relationships as those found in tactic



patterns, and the projection principles involved in realization are the same between all pairs of adjacent strata; thus the same mapping principles hold between semology and lexology as hold between lexology and morphology, and between morphology and phonology.

Although the linguistic model of syntax and semantics proposed by Marantz (1984) has a number of similarities with the stratificational model presented here, one important difference is that the semotactic structure (more-or-less equivalent to Marantz's l-s structures) is mapped directly onto surface syntax rather than onto an intermediate, nonlinear syntactic structure (his s structure) which is then related to surface structure by Move Alpha (Marantz 1984: 6).¹²

At this point, it is appropriate to move from the purely theoretical consideration of stratificational principles to their practical application in describing aspects of the semological and lexological structure of the Malagasy simple clause.



NOTES TO CHAPTER 1

1. Malzac 1960: iii-xxii provides a comparative philology of the language, comparing it to a number of other Austronesian languages, and Dahl 1951 is a book-length comparison of Malagasy and Maanjan, a language of Borneo.
2. The use of the term "verb" in this context could be criticized, conflating as it does the notion of function with class label; a more consistent nomenclature might be PREDICATE OBJECT SUBJECT, but the more popular usage is nonetheless adhered to in this work.
3. Cf. Mallinson and Blake's caveat on "derived" word orders in typological studies (1981: 27-37). Within the theoretical framework employed here, "basic word order" is equivalent to "unmarked surface word order"; see Chapter 2 for details. Also, Pullum errs, or at least grossly oversimplifies when he states that for Malagasy "The only significant freedom of word order is a very limited freedom for certain oblique NPs in a complicated sentence to drift to the right" (1977: 258). He was evidently familiar only with the data in Keenan 1976a, to which the same criticism applies. The actual situation is too complex to examine here, but the reader is referred to Dez 1980: 131-141 for a discussion of variant word orders. In all fairness, however, it should be noted that the present author's consultant found some of the examples cited by Dez only marginally acceptable, notably those in which the instrument immediately follows the verb.

4. Cf. Lockwood in press, where he refers to "a particular aspect of textual structure...[which] involves various ways of picking out certain participants or circumstantial expressions in clause structures and marking them by various grammatical devices. The term HIGHLIGHTING is used as a generic term covering these devices."
5. Recently, some members of this school have begun to use the expressions "cognitive-stratificational," "stratificational-cognitive," or just "cognitive" linguistics; it has also been referred to as "relational (network) grammar" (Reich 1970a, 1970b; Sampson 1980), but it should not be confused with the theoretical position of the same name now being advanced by Perlmutter and Postal and their followers (Perlmutter and Postal 1983).
6. Note that stratificationalists entertain a wide variety of theoretical positions with respect to linguistic phenomena; stratificational theory has never been the monolithic, homogeneous structure that early transformational-generative theory was (Lockwood 1975). The discussion in this section and elsewhere should be taken as the description of a particular model of the theory, only one of those possible within the broad framework of the stratificational school. The comments in this section apply to all of the current models known to the author, however. On the difference between models and theories, see Sullivan 1977 and 1980.
7. For a detailed description of the basic relationships used in the theory, see Lockwood 1972: 30-64. For discussion of more technical

points concerning these relationships, see Sullivan 1977; Schreyer 1980a, 1980b, 1981; and Christie 1978, 1981. For a description of the standard simplicity metric, see Reich 1968 and Lockwood 1972: 58-59.

8. The gnostology can be considered equivalent to the conceptual system discussed previously.
9. The demarcation between gnostology and semology is actually not as clear-cut as Sullivan implies; some authors (e.g., Johannesson 1976, 1980) include in one stratum what in Sullivan's view would be separate gnostological and semological phenomena. Other authors (e.g., Copeland 1983, Herrick 1984, and Müller 1978, 1980) adhere to the two-stratum concept. The model employed in this dissertation follows Sullivan's lead.
10. Works dealing with discourse and pragmatic issues include Austin 1966; Lockwood in press; Blum 1981; M.E. Bennett 1980; Johannesson 1976, 1980; Copeland and Davis 1980, and Copeland 1983. With respect to the treatment of case/role relationships in a stratificational framework, it is interesting to compare the alternate (but not necessarily incompatible) approaches of Fillmore (1968, 1977), Chafe (1970), and Longacre (1976, 1983).
11. Cf. the discussion of l-s (logico-semantic) structure in Marantz 1984: 7.

12. The type of (linguistic) semantic structure found in functional grammar (Dik 1978) is also basically compatible with a strati-
fical semology such as that assumed here.

2 A STRUCTURAL SKETCH OF THE MALAGASY SIMPLE CLAUSE

2.0 Introduction

This section has two main goals: (1) to lay the groundwork for the discussion in Chapter 3 of reflexive expressions and their interaction with highlighting phenomena, and (2) to provide an introduction to the notation system currently in use among many stratificational linguists. In line with this second objective, the discussion in this section will be fairly detailed in order to assist the reader as much as possible.

2.1 Basic Word Order

2.1.1 The Minimal Clause

Discussion here is confined for the most part to what Garvey (1964b: 51-52) calls the action clause, that is, a clause which contains a verbal predicate. The simplest form of such a clause is a verb (V) followed by a subject (S), as depicted in Figure 2.1. Here, a

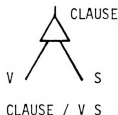


Figure 2.1: The network diagram for the minimal clause.

DOWNWARD ORDERED AND node relates the V and the S, in that order. Linear order is indicated by the fact that the lines leading to V and S occur in a left-to-right order rather than originating at the same

point on the bottom of the triangular AND node. The algebraic formula for the minimal clause is given below the network; here a slanted line is used in place of the familiar arrow of transformational-generative notation, since in the stratificational metaphor the relation between the clause construction and its components is not a rewrite relationship. The formula could be read as "A CLAUSE is composed of a V followed by an S." Note that the absence of any symbol between V and S in the algebraic notation indicates a linear, ordered relation between them.

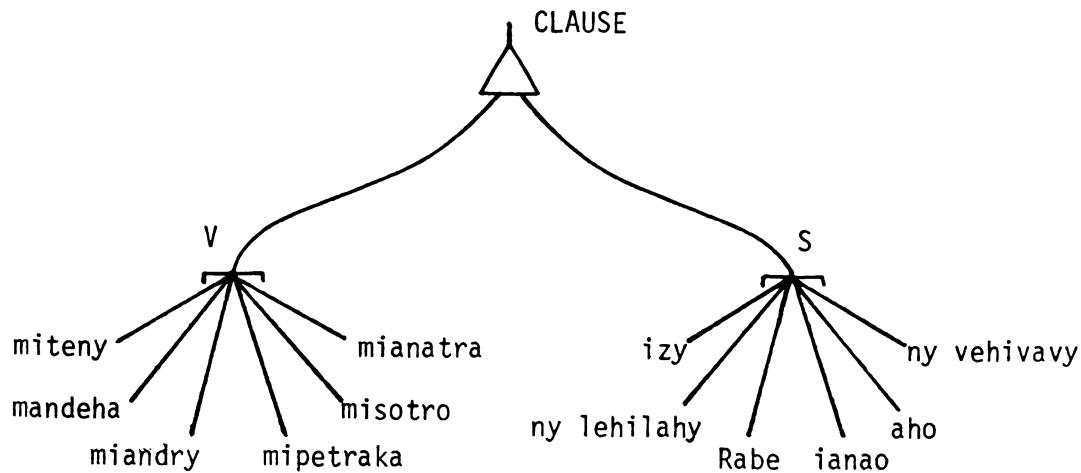
Table 2.I presents data relevant to the discussion of clause structure. This data indicates some of the expressions which can occur

Table 2.I: Some Malagasy simple clauses.

<u>MALAGASY</u>	<u>GLOSS</u>
Miteny aho. speak I	I am speaking.
Mianatra ianao. study you(sg.)	You are studying.
Mandeha Rabe. go Rabe	Rabe is going.
Misotro ny lehilahy. drink the man	The man is drinking.
Miandry ny vehivavy. wait-for the woman	The woman is waiting.
Mipetraka izy. sit-down he/she/it/they	He/she/it/they is/are sitting down.

as V's and S's. An OR node is used to illustrate paradigmatic relations. This node, shaped like a horizontal bracket, is used, along

with the AND, in Figure 2.2 to account for the data in Table 2.I. In the formulas beneath the graph, the syntagmatic relation represented



(a) CLAUSE / V S

V / miteny, mandeha, miandry, mipetraka, misotro,
mianatra

S / izy, Rabe, ianao, ny lehilahy, ny vehivavy, aho

(b) CLAUSE / (miteny, mandeha,..., mianatra) (izy, Rabe,..., aho)

Figure 2.2: Extension of Figure 2.1 to show some paradigmatic relations among verbs and subjects.

by the ordered AND again has no overt symbol, as mentioned above; words related to each other paradigmatically, however, are separated by commas which represent the OR relation. Note, too, that formula (a)—which is equivalent to a phrase-structure description—could also be given as (b), using parentheses to indicate groups of words which form a paradigmatic set. The decision to use one convention over the other is purely practical and has no theoretical implications.

Figure 2.3 illustrates another practical abbreviatory device. Here the items which occur in a particular syntactic position are simply listed under an OR node. In (b), the dots indicate that not

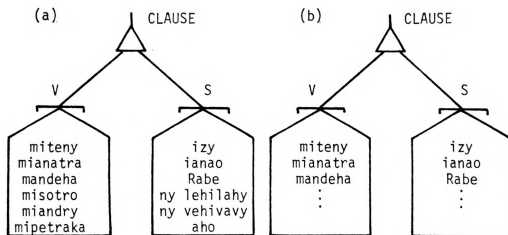


Figure 2.3: A simplified representation of paradigmatic relations.

all members of the set have been listed. A further variation of this device is given in Figure 2.4, where the symbols V and S represent the set of verbs and the set of subjects.

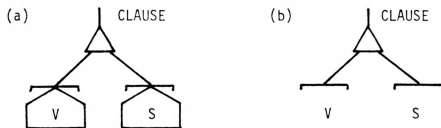


Figure 2.4: The use of class labels as abbreviations for sets.



While the network diagrams presented so far have a basic similarity to tree diagrams in transformational-generative notation, the latter present the structure of only one construction at a time, whereas these stratificational tactic networks represent whole classes of structures and are essentially graphic depictions of phrase-structure rules (cf. Reich 1968). The stratificational equivalent of a tree diagram is called a trace and is discussed below.

The data in Table 2.II provides information on the position of objects in the clause; a network diagram which accounts for this is

Table 2.II: Some data on objects.

<u>MALAGASY</u>	<u>GLOSS</u>
Miteny malagasy aho. speak Malagasy I	I speak Malagasy.
Mianatra anglisy ianao. study English you(sg.)	You study English.
Misotro labiera ny vehivavy. drink beer the woman	The woman drinks beer.
Miandry ny lehilahy Rabe. wait-for the man Rabe	Rabe waits for the man.

given in Figure 2.5. The small circle on the line leading to the class of objects (0) is the OPTIONALITY ELEMENT, and indicates that an object is optional. This figure therefore accounts for both VOS and VS constructions. In the algebraic notation, optionality is indicated by bracketing the optional element, as shown in the formula under the graph.¹

Examination of sentences (1) and (2) below reveals that certain

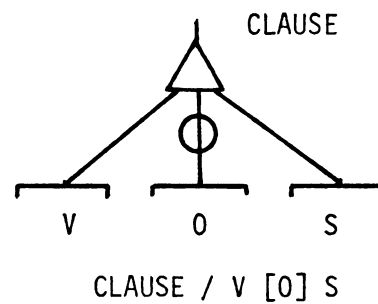


Figure 2.5: A lexotactics which accounts for clause objects.

expressions can function as either the subject or the object in a clause:

- (1) Mijery ny vehivavy ny lehilahy.
 see the woman the man
 'The man sees the woman.'
- (2) Mijery ny lehilahy ny vehivavy.
 see the man the woman
 'The woman sees the man.'

Such expressions are here referred to as Nominal Phrases (NmP), and include both pronominal and non-pronominal expressions. The UPWARD OR node in Figure 2.6 captures the fact that a NmP can serve as either an S or an O. Again, the corresponding formula is shown below the graph.

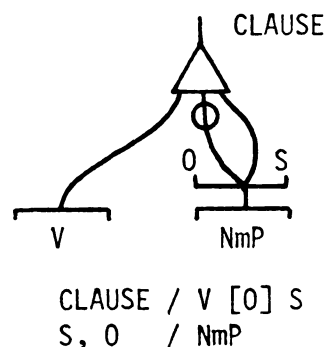


Figure 2.6: The use of the UPWARD OR node.

Note that given the inventory of verbs and NmP's presented so far, the lexotactics in Figure 2.6 does not in itself rule out such anomalous expressions as (3), where the oddity stems from the occurrence of an object with an intransitive verb:²

- (3) # Mandeha ny vehivavy ny lehilahy.
 go the woman the man
 'The man goes the woman.'

Stratificational linguists generally consign this type of co-occurrence restriction to the semology, where the analog of case frames specifies what predicates can or cannot take objects. Thus a distinction between transitive and intransitive verbs is lexologically redundant and can be eliminated, considerably simplifying the lexotactics.³

As a preliminary to discussing the semology, it is appropriate to mention a criticism of stratificational theory made by Sampson (1980: 183-4).⁴ Sampson implies that stratificational theory has no way to distinguish between sentences such as (1) and (2), repeated here for convenience:

- (1) Mijery ny vehivavy ny lehilahy.
 see the woman the man
 'The man sees the woman.'
- (2) Mijery ny lehilahy ny vehivavy.
 see the man the woman
 'The woman sees the man.'

Since these two utterances obviously differ in meaning, if Sampson's criticism were valid, the stratificational approach would be little different from the classical Chomskyan position that it is the syntactic component alone which is the creative part of language, with the semantic component serving a purely interpretive function (cf. Sampson 1970:

7-15).

This position is explicitly rejected by stratificationists, however, who conceive of syntax as functioning in response to or under the control of the semology, at least during encoding (Sampson 1970: 7-15; Sullivan 1980: 308, 311; Lockwood 1972: 7, 151; Lockwood MS: 5:45-53). Thus an adequate (stratificational) grammar of Malagasy must specify how the differences in meaning between (1) and (2) are expressed through variations in syntactic order, and vice versa. It is appropriate at this point, then, to explore in greater detail the relationship between the semology and the lexology, beginning with a closer look at the semotactics.

The semotactics defines well-formed combinations of sememes, and Figure 2.7 illustrates a rudimentary semotactics which accounts for sentences (1) and (2). A PREDICATION is related to a set of ENTITY

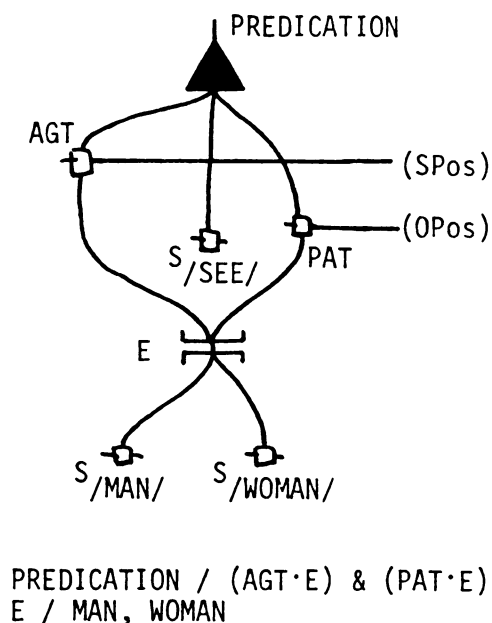


Figure 2.7: A semotactic fragment which accounts for (1) and (2).

sememes (E) which may serve in either the AGENT (AGT) or PATIENT (PAT) role of the event sememe $S/SEE/$; in this simple example, the class of entities is limited to two members, here glossed as $S/MAN/$ and $S/WOMAN/$, leaving aside the details of the definite article ny 'the' for the sake of simplicity.⁵ The shaded triangle represents an ASSOCIATIVE AND node, which indicates that no linear order obtains between the constructions it relates.⁶ Note that unlike the line originating from the bottom of an ORDERED AND, the lines from an ASSOCIATIVE AND all originate at a common point.

The relation between an entity sememe and its associated role is seen to be an AND relationship, although the graphic notation employs a DIAMOND node to indicate the intersection of the tactic portion of the linguistic structure with the realizational portion. In this instance, the sememic AGENT role is mapped onto the subject position in the lexotactics (SPos), and the sememic PATIENT onto the object position (OPos). Thus in Figure 2.7 the left-hand lines lead to the conceptual system, and the right-hand lines to the lexotactics. DIAMONDS may be considered the -emes of a given tactic level, although the exact number of connections they may have can vary (cf. Lockwood 1972: 55-58). Finally, note that the algebraic notation uses a raised dot ($\cdot$) to indicate a strictly simultaneous AND relation and an ampersand (&) for the ASSOCIATIVE AND relation.

In encoding sentence (1) the input to the lexotactics is a structure of the sort shown in Figure 2.8(a); such a structure is a trace, and represents one of the well-formed combinations of sememes specified by the semotactics. In Figure 2.8(a) the semological agent is $S/MAN/$, which occurs as the lexotactic subject. Figure 2.8(b) shows the trace

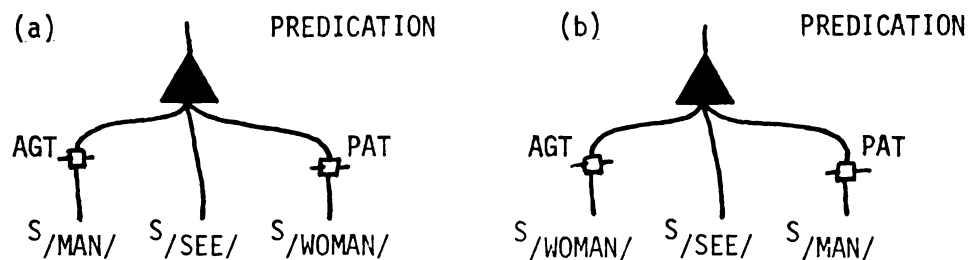


Figure 2.8: The semotactic traces for (1) and (2).

which accounts for (2), where $S/WOMAN/$ is the agent and thus the lexotactic subject.

Figure 2.9 illustrates the connection between the semotactic trace for (1) and its corresponding lexotactic trace, showing the realization relations—in this example one-to-one—which hold between the semological roles and the lexological clause positions. The traces for (2)

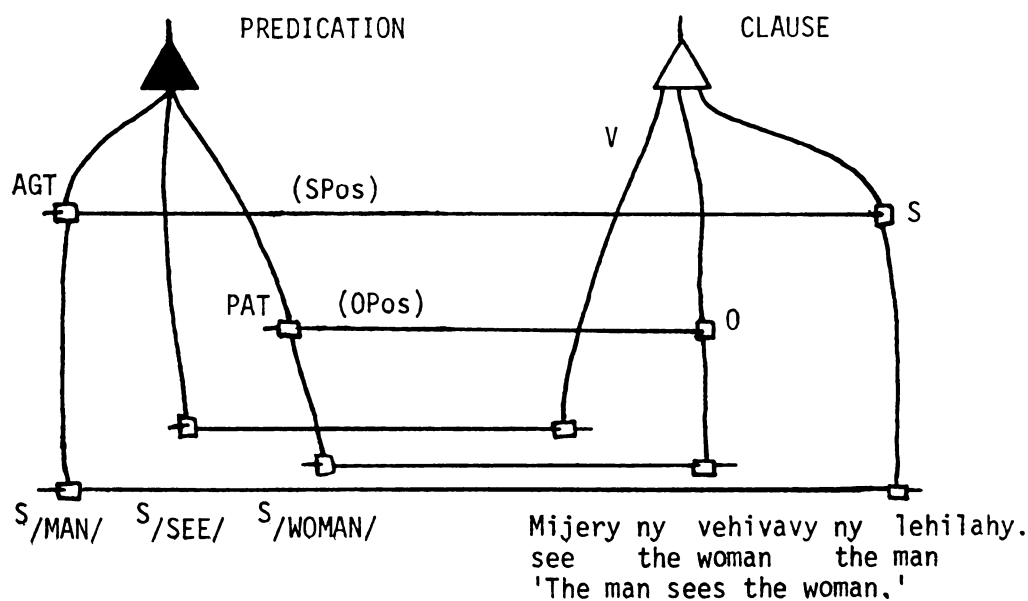


Figure 2.9: The mapping between the semotactic and lexotactic traces for (1).

would be treated analogously and are not shown here. It is important to note that given the lexotactic trace for (1) or (2), it is possible to uniquely specify the corresponding semotactic trace; thus the realizational relationships are bidirectional and can account for both encoding and decoding.

At this point it is hopefully evident that stratificational theory can account for the expression/content distinctions between (1) and (2) and that Sampson's criticism of the theory with respect to this point is not a valid one.

The oddity of (3) can now be accounted for in the semology. The Malagasy event sememe $S_{/GO/}$ belongs to a set of sememes which can take a semotactic agent, but no patient, as shown in Figure 2.10. This

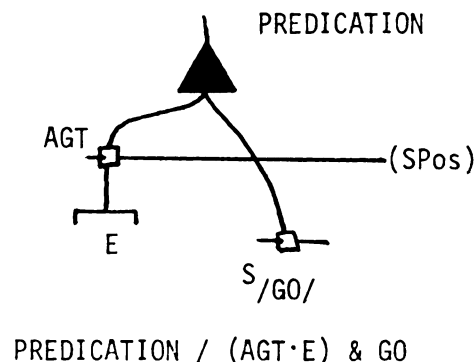


Figure 2.10: A semotactic fragment specifying the non-occurrence of PAT with the sememe $S_{/GO/}$.

figure can be integrated with Figure 2.7 to give the network in Figure 2.7 to give the network in Figure 2.11. In the last-mentioned figure, the transitive sememe $S_{/WAIT-FOR/}$ and the intransitive sememe $S_{/SIT-DOWN/}$ have been added to show how the tactics accommodates classes of event sememes.

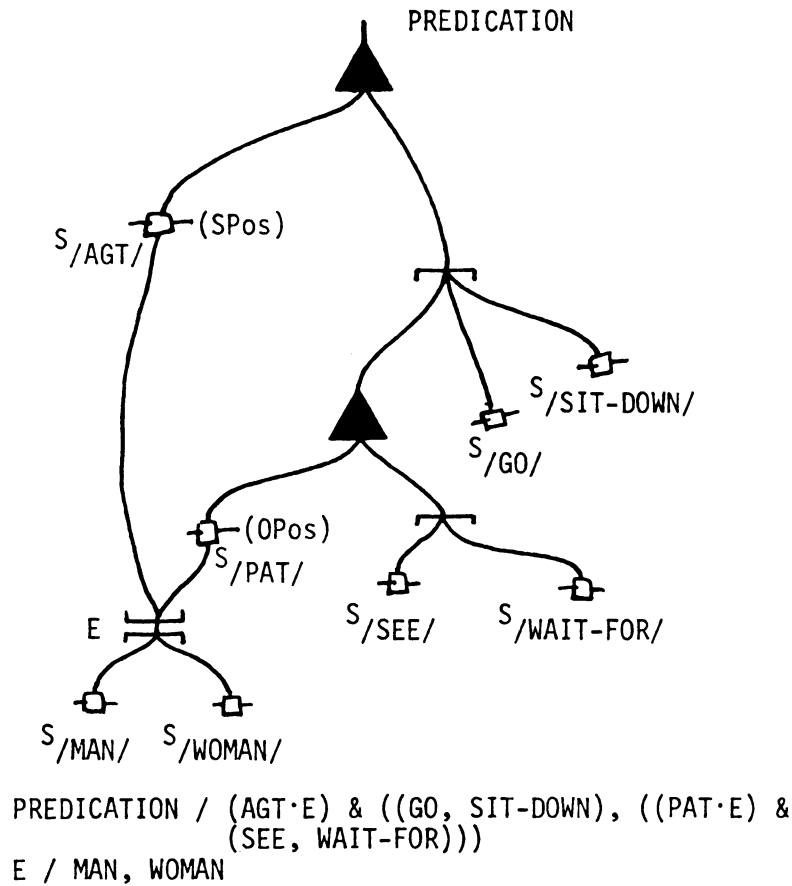


Figure 2.11: A semotactic network accounting for a set of transitive and intransitive expressions.

2.1.2 An Excursus on Semology

It is appropriate at this point to comment further on certain issues concerning semological roles and selectional restrictions.

The semological roles used in this work (AGT, PAT, etc.) bear some relation to those proposed by other theorists (e.g., Fillmore 1968, 1977; Longacre 1976, 1983; Dik 1978, and Chafe 1970), although the exact number and nature of such roles is open to debate (cf. Moulton and Robinson 1981). Rather than review the history and substance of this debate here, it is sufficient to outline the major

points of the stratificational position.

First, with respect to the content of such roles as AGT and PAT, it is widely recognized that the role of the subject of a verb such as see is semantically different from the role of the subject of a verb such as kill. The subject of a see-type verb is often ascribed a semantic role such as experiencer or patient, whereas the subject of a kill-type verb might be labeled the agent or actor. With other types of predicates, still further roles (e.g., controller, force, instrument, causer, etc.) might be assigned to the entity which still occurs as a surface subject.

Stratificationalists, like many other linguists, use the concept of "role" to capture the relatedness of sentences. For example, the relation between (4) and (4') is captured in part by the fact that ny vehivavy 'the woman' is the patient in both, despite the fact that it is the lexotactic object in (4) and the subject in (4'):

		PAT		AGT	
(4)	Mahita	ny vehivavy	ny	lehilahy.	
	see	the woman	the	man	
	'The man sees the woman.'				

		AGT		PAT	
(4')	Ahitan'	ny lehilahy	ny	vehivavy.	
	seen-by	the man	the	woman	
	'The woman is seen by the man.'				

Similarly, ny lehilahy 'the man' is the agent, and also serves as the subject in (4) and what can be called the actor in (4'). The use of roles in a stratificational approach accomplishes many of the same ends as do transformations in a transformational approach.

In general, a stratificational description of semology includes only as many roles as are necessary to correctly relate the semological



and lexological structures (cf. Sullivan 1980: 309-11). Extraneous semological roles are "weeded out" through the judicious use of Occam's razor (as embodied in the stratificational simplicity measure, for example). Hence, in the Malagasy data considered so far, there is no syntactic difference between the subjects of mijery 'see' and mandeha 'go,' so the semological entities related to these subjects are subsumed under the same semological role, here called AGENT.

While the labels used for semological roles in a stratificational description are not intended to imply a specific content, the fact remains that they are nonetheless identical or similar to many of the labels used in other role/case theories in which the roles are assigned a specific content. It might have been possible to avoid confusion by calling AGT the DEEP SUBJECT and PAT the DEEP OBJECT, but the use of SUBJECT and OBJECT for semological roles obscures the differences between semology and lexology. Hence, the terms subject and object are in this work restricted to labels for certain clause positions in the lexotactics.

The final decision has been to use those role labels which have become established in stratificational works (such as AGT and PAT), adding the caveat that such terms have no inherent content of their own but merely serve as useful labels for various structurally significant points in the semotactics.

The second issue to be examined in this section is that of selectional restrictions in the semology. As mentioned previously, (3) is odd because it violates a semotactic restriction barring the occurrence of a patient with the event sememe ^S/GO/:

- (3) # Mandeha ny vehivavy ny lehilahy.
 go the woman the man
 'The man goes the woman.'

Sentence (5), however, is well-formed in terms of both its semological role structure and its lexotactic configuration but is nonsensical in the absence of a proper context:

- (5) # Mijery ny vehivavy ny labiera.
 see the woman the beer
 'The beer sees the woman.'

It violates a selectional restriction to the effect that the entity sememe ^S/BEER/ cannot occur as the AGT of the event sememe ^S/SEE/, although ^S/BEER/ can occur as the PAT, as illustrated by the normality of (6):

- (6) Mijery ny labiera ny vehivavy.
 see the beer the woman
 'The woman sees the beer.'

Despite Dik's argument for the incorporation of selectional restrictions into semological analysis (1978: 44-46), Sampson's advocacy of the contrary seems much more compelling (1975: 80-84), particularly when he states "it is not for linguistics to tell us things that we know independently of linguistics" (p. 80).⁷ Hence, selectional restrictions are ignored in the exposition of Malagasy semology offered in this work.

2.1.3 Other Clause Constituents

Randriamasimanana (1981: 271-293) presents a detailed discussion of various oblique constituents and their relative ordering within the

clause. He lists INTERMEDIARY, INSTRUMENT, DIRECTIONAL, BENEFICIARY, TEMPORAL, LOCATIVE, MANNER, SOURCE, COMITATIVE, and CAUSAL as major oblique complements, and presents arguments to the effect that they occur in the order cited, at least in unmarked expressions. The description of the clause given in this section deals with only a subset of these, namely: INSTRUMENT, BENEFICIARY, TEMPORAL, LOCATIVE, and CAUSAL. The restriction has been made for several reasons.⁸

First, an oblique constituent such as a MANNER phrase, e.g., haingana 'quickly' or amin-kafalina 'joyfully,' rarely interacts with reflexive expressions, and is thus peripheral to one of the main topics of this study. Of course, TIME phrases are also unlikely to interact with reflexives, but since TIME expressions are often formally identical to LOCATIVE expressions, they are included in the description.

Second, the construction amin' + NmP (where amy/amina is a multifunctional preposition) is found as a component of several oblique constituents, as shown in Table 2.III.⁹ The treatment of TEMPORAL, LOCATIVE, and INSTRUMENT expressions provided here accounts for such constructions, and since the other oblique constituents with amin' would be treated in essentially the same manner, they are omitted from consideration.

A final reason for restricting the examination of clause constituents to those five listed above is that even with this number of complements to consider, there are problems in determining their placement; to include all the oblique phrase types discussed by Randriamasimanana would simply compound the problems.

None of the major sources seem to be in complete agreement with respect to the ordering of complements within the clause.¹⁰ To

Table 2.III: Examples of semological roles realized by the
amin' + NmP construction.

<u>ROLE</u>	<u>LEXEMIC REALIZATION</u>	<u>GLOSS</u>
INSTRUMENT	amin' ny vola the money	with the money
TEMPORAL	amin' ny roa the two	a two o'clock
SOURCE	avy amin' ny namako come the my-friend	from my friend
MANNER	amin-kafaliana joy	with joy, joy- fully
COMITATIVE	miaraka amin' ny namako accompany the my-friend	with my friend
LOCATIVE	ao amin' ny efitra therein the room	there in the room

illustrate the difficulties, consider the following. Randriamasimanana (1981: 276, 292) implies that the unmarked position for a TEMPORAL complement is after the subject, i.e., in absolute clause-final position. Such an expression can also occur in a marked position immediately before the subject, however (p. 276). Furthermore, the situation is reversed when LOCATIVE phrases are considered: the unmarked position is before the subject, the marked position after (pp. 276, 292).

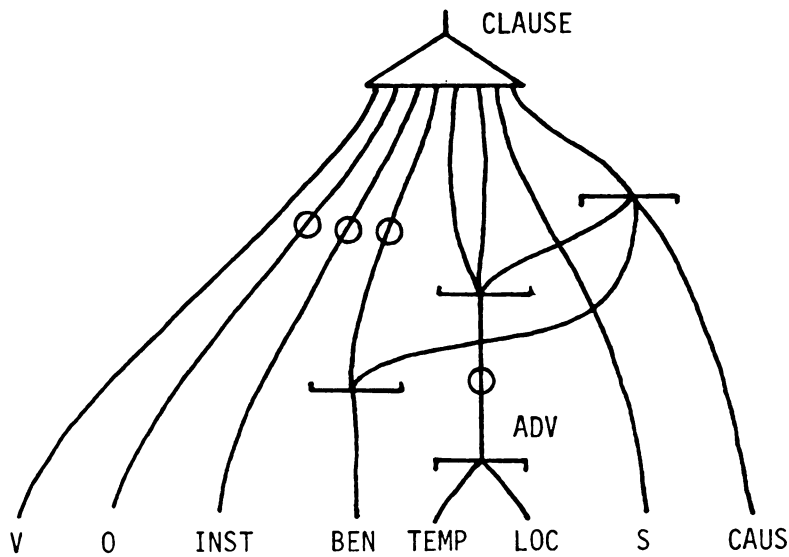
Contrast Rajemisa-Raolison's contention (1966: 89) that a circumstantial complement, of which TEMPORAL and LOCATIVE expressions are examples, occurs after the object complement but before the subject. If, however, there are several oblique complements, either the TEMPORAL or LOCATIVE occurs clause-finally after the subject. If both a TEMPORAL and a LOCATIVE phrase occur, he states that it is the TEMPORAL which occurs finally, the LOCATIVE in this case evidently being

restricted to the position immediately before the subject. Rajemisa-Raolison does not comment on the relative markedness of these variant orders.

The situation is further complicated by the fact that there is at least one sentence in Rajaona 1972 (p. 86) which has both a TEMPORAL and a LOCATIVE expression, both of which precede the subject (contradicting Rajemisa-Raolison's statements) and which occur in the order LOCATIVE TEMPORAL, where TEMPORAL would be considered marked in Randriamasimanana's view.¹¹

Examination of the works cited above, and others such as Dez 1980 (pp. 131-141) and Domenichini-Ramiaramanana 1977 (pp. 61-99), will quickly lead to the conclusion that the relationships between pragmatic factors (such as discourse constraints and relative information value) and variant word orders is but as yet poorly understood with respect to Malagasy. Some francophone authors tend to dismiss such variation by calling it stylistique (Rajaona 1972: 97; Dez 1980: 139), but Domenichini-Ramiaramanana 1977 attempts to describe it in functional terms. It is relatively certain that if the facts were known in sufficient detail, they could be integrated into a stratificational analysis of the type being undertaken here, since several such studies have proven fruitful with respect to other languages.¹² In the absence of these facts, however, a more limited analysis must suffice.

Figure 2.12 presents the basic, unmarked order of clause complements henceforth assumed in this work. The relative positioning of the VERB (V), OBJECT (O), INSTRUMENT (INST), BENEFICIARY (BEN), SUBJECT (S), and CAUSAL (CAUS) is generally agreed upon by all sources. As seen beneath the figure, the algebraic formula can take two forms; one is a



- (a) CLAUSE / V [O] [INST] [BEN] [(LOC, TEMP)] [(LOC, TEMP)]
 S [(LOC, TEMP)], BEN, CAUS)
- (b) CLAUSE / V [O] [INST] [BEN] [ADV] [ADV] S ([ADV], BEN, CAUS)
 ADV / TEMP, LOC

Figure 2.12: The integration of other constituents into the minimal clause.

longer, more explicit formula, the other uses the cover term ADV(ERBIAL) for the set of TEMPORAL (TEMP) and LOCATIVE (LOC) expressions, which occur in several clause positions. The use of the term ADV makes overt the generalization that TEMP and LOC expressions function alike with respect to their syntactic patterning. Note, too, that the fact that one of the lines from the final OR node leads to an OPTIONALITY ELEMENT (just above the label ADV) indicates that the post-subject position need not be filled.

The thorny issue of order for TEMP and LOC complements is skirted here by allowing them to occur both to the right and to the left of

the subject, with the additional possibility that both may precede S, as in the case where CAUS occurs clause-finally. Note that in the present description there is no implication of markedness for any particular order of complements, in line with remarks made earlier.¹³

The basic clause structure to be assumed in this work having been presented, a more detailed examination of the structure of the subject and complements can now be undertaken.

2.2 Phrase Types

Figure 2.13 extends Figure 2.12 to illustrate the connections of the lexotactic clause to the semology (cf. Figure 2.9). This figure also

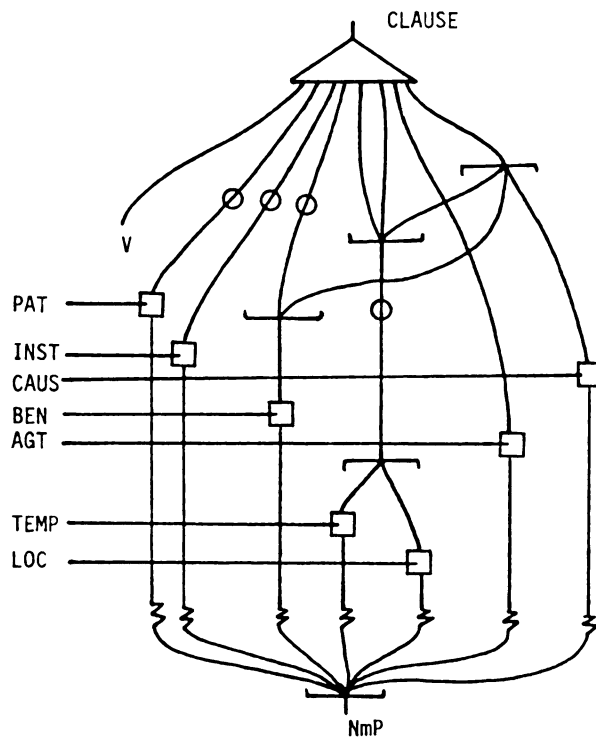


Figure 2.13: An extension of Figure 2.12 to illustrate connections to the semology and to the lexotactic Nominal Phrase (NmP).

shows that the subject and other clause constituents are ultimately relatable to the NmP, although there is some intervening structure which is omitted, as indicated by the notational device of wavy lines ($\{ \}$). This section specifies the syntactic markers, often prepositions, which are associated with the various sememic roles. To facilitate this task, a brief outline of the general structure of the NmP is first provided.

2.2.1 The Basic Structure of the Nominal Phrase

2.2.1.1 The Lexotactic Structure of the Nominal Phrase

The present description of the Nominal Phrase (NmP) is not very delicate (in Hallidayan terms), being just enough to form a backdrop for the discussion in Chapter 3, which concerns the interaction of the highlighting systems of voice and thematicization with reflexive expressions. For further details on the syntax in general, see Rajemisa-Raolison 1966, Garvey 1964b, and Malzac 1960.

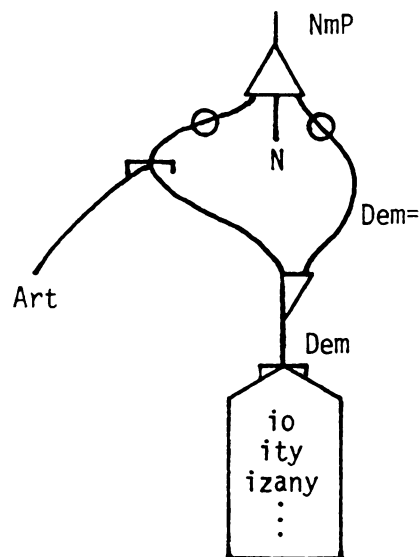
One important function of the NmP is to account for the distribution of deictics with respect to the head of the phrase. Malagasy has a well-developed system of deixis which involves visible/invisible and singular/plural distinctions, in addition to expressing approximately half a dozen degrees of distance from a reference point (Malzac 1960: 34-36, Rajaona 1972: 613-636, Garvey 1964a: 50, 113, 115, 124-125; Garvey 1964b: 37-38, 42-43). In view of this, only the general positioning of deictics (here termed Demonstratives (Dem) in accordance with common usage) is treated in this work.

It is convenient to distinguish the Article (Art) ny 'the' from the Demonstratives; the latter, unlike the former, usually occur

twice per phrase, flanking the inner constituents of the NmP. Witness the data in Table 2.IV. Figure 2.14 illustrates the relation of the

Table 2.IV: Some data on demonstratives.

<u>MALAGASY</u>	<u>GLOSS</u>
trano	house
ny trano	the house
ity trano ity	this house (visible)
io trano io	that house (visible)
izany trano izany	that house (invisible)
* ny trano ny	



NmP / [(Art, Dem)] N [Dem=]

Figure 2.14: The position of Art and Dems in the NmP.

Art and the Dems to the head nominal (N) of the phrase. Note the use of the REDUPLICATION NODE (the small half-triangle) which provides for the phrase-final Dem; in the algebraic formula, this node is symbolized with an equals sign (=) after the symbol of the class of potentially reduplicated lexemes (in this case, the Dems). When a demonstrative is signaled from the semology, the REDUPLICATION NODE ensures that the final position of the phrase will be filled by the same Dem that occurred in the initial position.¹⁴

Pronouns can be followed by a Dem to convey specificity, as shown in (7) and (8):

- (7) Hoatrinona izy?
 how-much it
 'How much is it?'
- (8) Hoatrinona izy ity?
 how-much it this (visible)
 'How much is this?'

Flanking the pronouns with Dems or putting the Dem before the pronoun results in the unacceptable forms

- (9) * Hoatrinona ity izy ity?
 (10) * Hoatrinona ity izy?

A Dem may also occur alone as the head of a NmP, as indicated in (11):

- (11) Ity ny tranoko.
 this (visible) the my-house
 'This is my house.'

The simplest way to deal with these facts is to recognize a subtype of NmP, here termed the Pronominal Phrase (PrnP), which has the same lexotactic functions as constructions headed by non-pronominal

forms, which can now be called Noun Phrases (NPs). The PrnP consists of an optional Pronoun (Prn) followed by an optional Dem; making both these classes optional allows either one to occur in isolation with respect to each other. Figure 2.15 gives the network and formula for this phrase type.¹⁵

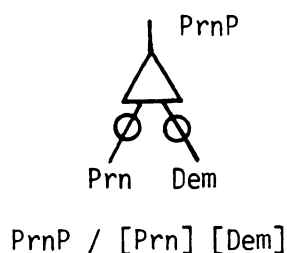
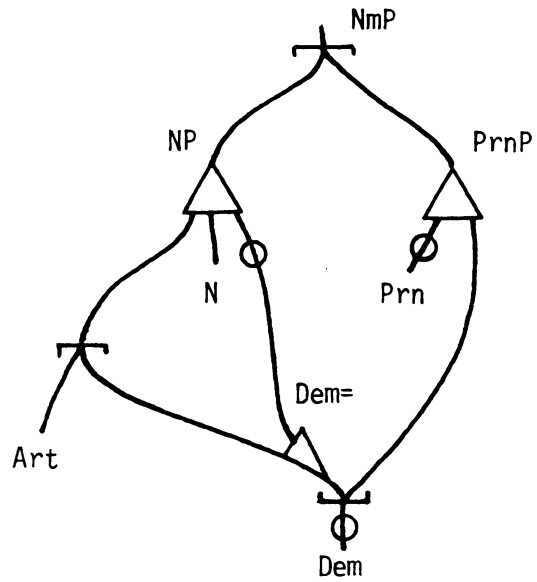


Figure 2.15: The Pronominal Phrase (PrnP).

Figure 2.16 shows the integration of Figure 2.14 and Figure 2.15; here the syntactic differences between the NP and the PrnP are plainly visible, as is the fact that they are both subsets of the NmP. Note that the OPTIONALITY ELEMENT just above the Dems allows the elimination of the OPTIONALITY ELEMENTS on the first line out of the NP AND node and the last line out of the PrnP AND node, since both these lines now lead down to a zero option.¹⁶ Again, the algebraic formulas for the figure appear beneath it.

Table 2.V presents data relevant to the positioning of adjectives and numerals with respect to the head of a NP. Both Adjectives (Adj) and Numerals (Num) occur after the head N, as is common in V-initial languages; when both occur, the unmarked order is N Num Adj.¹⁷ Note



NmP / NP, PrnP

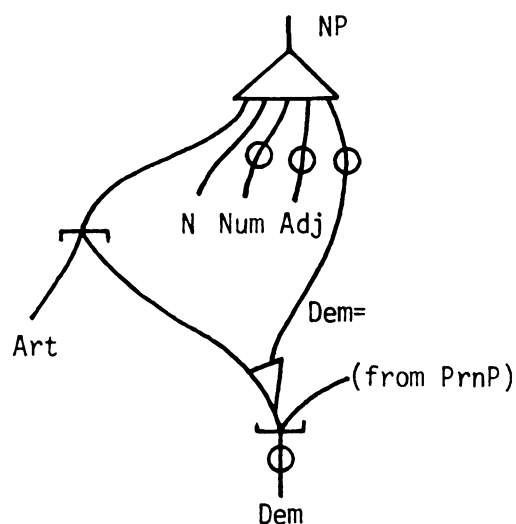
NP / (Art, [Dem]) N [Dem=]

PrnP / [Prn] [Dem]

Figure 2.16: The integration of Figure 2.14 and Figure 2.15.

Table 2.V: Some data on positioning of adjectives and numerals.

<u>MALAGASY</u>	<u>GLOSS</u>
trano telo	three houses
trano dimy	five houses
trano telo fotsy	three white houses
trano dimy mena	five red houses
izany trano telo fotsy izany	those three white houses
ity trano iray be ity	this one big house



NP / (Art, [Dem]) N [Num] [Adj] [Dem=]

Figure 2.17: The position of adjectives and numerals in the NP.

The last constituent of the NP to be examined is the possessive construction (Poss), the discussion being restricted to possessive pronouns. Table 2.VI provides data on possessive structures, and Table 2.VII presents the full set of subject and possessive pronouns. The former are henceforth referred to as the Independent Personal Pronouns (IPs) and the latter as Enclitic Person-Markers (EPMs).¹⁸

There is some dispute as to the position of EPMs relative to the

Table 2.VI: Data on possessive markers.

<u>MALAGASY</u>	<u>GLOSS</u>
trano	house
ny tranoko	my house
labiera	beer
ny labieranay	our (excl.) beer
namana	friend
ny namany	his/her/its/their friend

Table 2.VII: Independent Personal Pronouns (IPs) and Enclitic Person-Markers (EPMs).

<u>IP</u>	<u>EPM</u>	<u>GLOSS</u>
aho	-(k)o	1SG
ianao	-(n)ao	2SG
izy	-(n)y	3SG, 3 PL
izahay	-(n)ay	1PL EXCL
isika	-ntsika	1PL INCL
ianareo	-(n)areo	2PL

other constituents of the NP. Rajemisa-Raolison (1966: 62) states that the EPMs occur after adjectives, as in the following example:

- (13) Mainty ny volon' ny saka keliko.
 black the hair-of the cat little-my
 'My little cat's fur is black.'

Stark, however, gives an example where the EPM occurs between the head and its accompanying adjective (1969: 104):

- (14) Tsy maintsy haverinareo anio hariya ny
 must will-be-gone-over-by-you(pl.) today evening the

 lesonareo vaovao.
 lesson-your(pl.) new
 'You must go over your new lesson this evening.'

The order cited by Stark is also the order preferred by the consultant for this work; hence it is the order which is assumed here and illustrated in Figure 2.18.

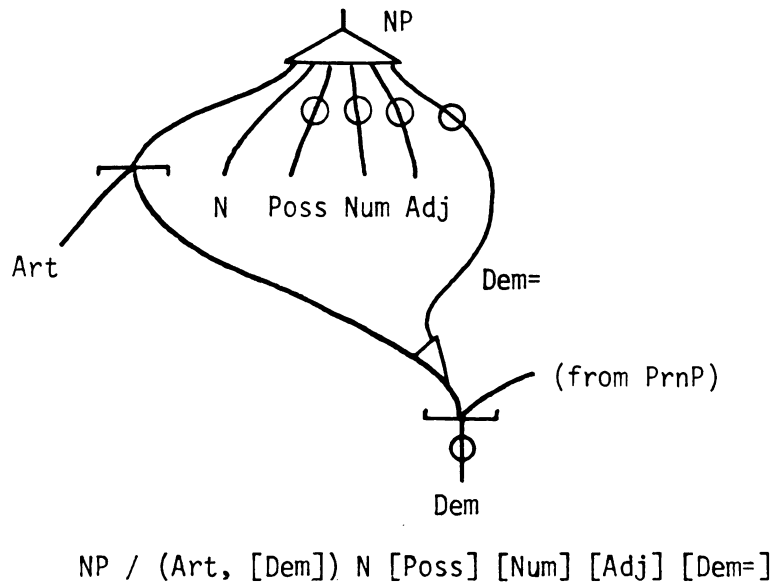


Figure 2.18: The integration of Poss into the NP.

In order to capture the obvious relationship between the IPs and EPMs, the lexotactics can be arranged in such a way that the same set of person-number lexemes is related to both the PrnP and Poss. Such an arrangement is depicted in Figure 2.19; in this figure, the Poss position leads to the same class of pronominal lexemes that occur in the PrnP. The Poss position is related to a sememe of possession

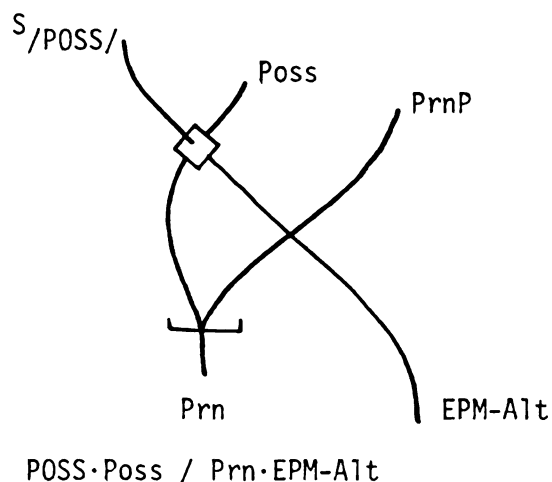


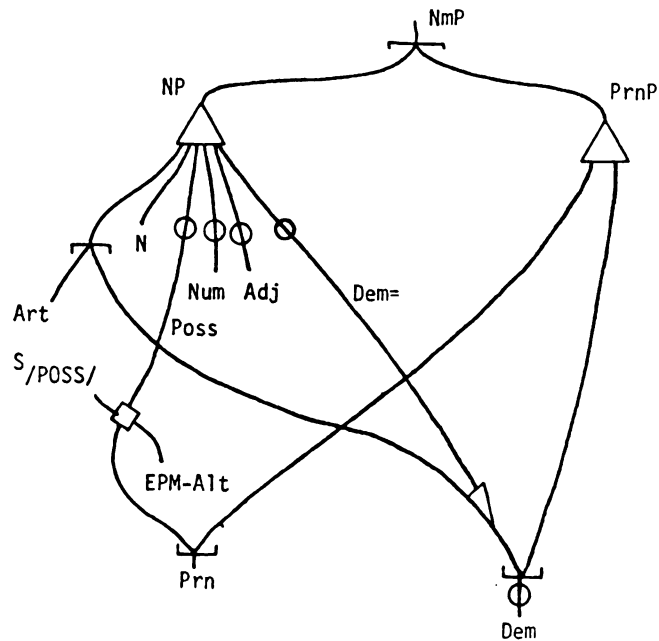
Figure 2.19: A lexotactic fragment with the related realizational portion.

$S/POSS/$ which is realized not only in terms of a specific lexotactic position (Poss), but also in terms of its effects on the accompanying pronominal lexemes; this effect is labeled EPM-Alt (for Enclitic Person-Marker Alternation). Thus the first person singular lexeme is realized as -(k)o in the possessive construction and as aho or ahy elsewhere (cf. Section 2.2.2.2 below). The same tack, mutatis mutandis, holds for the other person-number lexemes.¹⁹

The lexotactic structure of the NmP thus far is given in Figure 2.20. This concludes the examination of the lexotactic aspects of the NmP, and it is now time to turn to the semological structure which is related to it.

2.2.1.2 The Semotactic Analog to the Lexotactic Nominal Phrase

This section details the semotactic relationships related to the lexotactic NmP. Specifically, it deals with the various semological



NP / NmP, PrnP
 NmP / (Art, [Dem]) N [Poss] [Num] [Adj] [Dem=]
 POSS·Poss / Prn·EPM-Alt
 PrnP / [Prn] [Dem]

Figure 2.20: The NmP as assumed in this work.

ENTITIES (E) and their relations to various modifying and identifying sememes. The semotactic analog to the NmP is here called the ENTITY CLUSTER (EC).

The EC which relates to the lexotactic PrnP can be termed the PRONOMINAL ENTITY CLUSTER (PrEC), and is illustrated in Figure 2.21. This construction relates a class of pronominal entity sememes E_{pro} to a class of deictic sememes which are realized as Dems in the lexology (DX_{dem}). A sememe from either class may occur alone, or with a sememe from the other class; in this latter case, the lexotactics specifies the syntactic order between them.²⁰

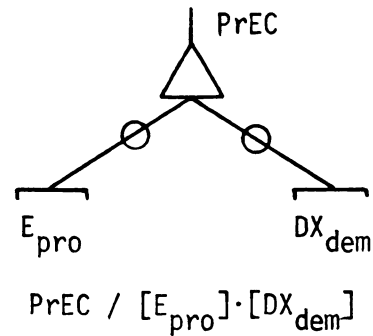


Figure 2.21: The PRONOMINAL ENTITY CLUSTER.

The relations in the NOMINAL ENTITY CLUSTER (NmEC) are slightly more complex. In Figure 2.22, which depicts this structure, the occurrence of NOMINAL ENTITIES (E_{nom}) with MODIFIERS (MOD)—lexotactic

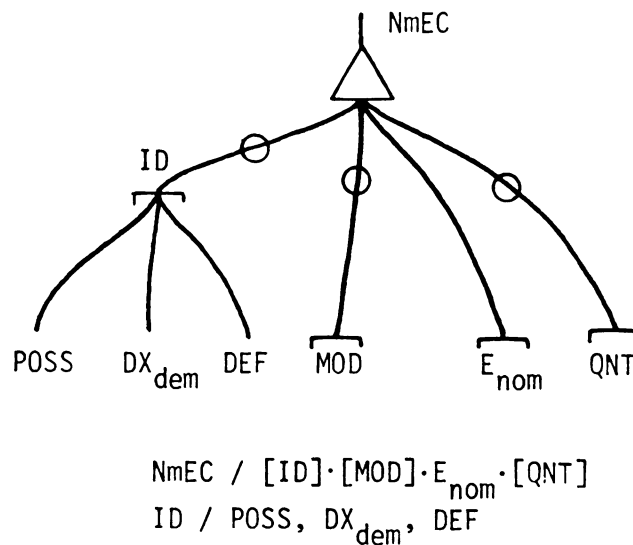


Figure 2.22: The NOMINAL ENTITY CLUSTER.

adjectives—and QUANTIFIERS (QNT)—lexotactic numerals—is quite straightforward. With a class of sememes termed IDENTIFIERS (ID), however, certain co-occurrence restrictions are evident, to wit:

the demonstrative sememes (DX_{dem}), the definite sememe (DEF), and the possessive construction (POSS) are mutually exclusive.²¹

Furthermore, DEF (normally realized as the Art ny 'the') and POSS (often realized by the Enclitic Person-Markers in the Poss construction) share certain syntactic realizations which need to be accounted for. As seen in Table 2.VI and sentences (13) and (14) above, possessive expressions are preceded by an occurrence of the definite article ny. Thus sentence (15) is only marginally acceptable, whereas (16) is perfectly normal:

(15) ?/* Aiza namako?
 where my-friend
 'Where is my friend?'

(16) Aiza ny namako?
 where the my-friend
 'Where is my friend?'

Accounting for this pattern at the lexotactic level leads to a much more complex description (in terms of the stratificational simplicity metric) than accounting for it in the semotactics, where it is quite easily handled.

Figure 2.23 illustrated the preferred solution; here Art necessarily occurs in the lexotactics (abbreviated as LT in the figure) whenever the sememe $S/DEF/$ or $S/POSS/$ occurs in the semotactics. The sememe $S/DEF/$ has no further realization, as indicated by the absence of a direct connection to the lexotactics from the DIAMOND which represents it. The sememe $S/POSS/$, however, has a connection to the Poss position in the lexotactics, in addition to its connection to the semotactic class of PRONOMINAL ENTITIES.

Figure 2.24 integrates Figure 2.21 through Figure 2.23, and thus

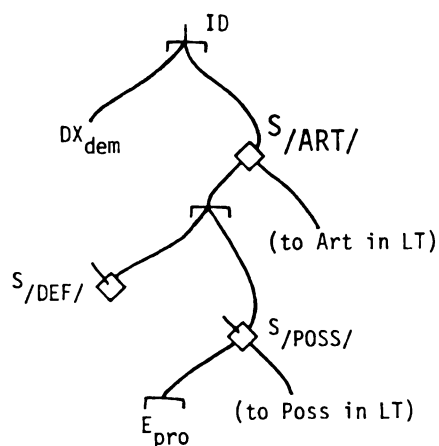
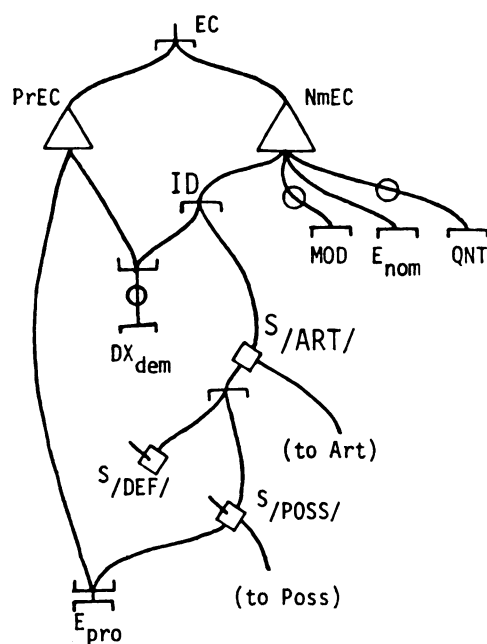


Figure 2.23: The determined occurrence of $S/ART/$ with $S/DEF/$ and $S/POSS/$ in the semotactics.



EC / PreEC, NmEC
 PreEC / [E_{pro}]·[DX_{dem}]
 NmEC / ID·[MOD]·E_{nom}·[QNT]
 ID / DX_{dem}, (ART·(DEF, (POSS·E_{pro})))

Figure 2.24: The structure of semotactic ENTITY CLUSTERS.

illustrates the complete structure of ENTITY CLUSTERS as assumed in this work. The groundwork has now been laid for a continued investigation of the lexotactic and semotactic structure of the various phrase types.

2.2.2 An Inventory of Clause Constituents

Now that the internal structures of the NmP and their matching ECs have been provided, the details concerning various nominal constituents of the clause may be fairly quickly given. This section examines the relations between semological roles and the phrase types which realize them; most of these phrases are prepositional phrases, and a minor terminological refinement needs to be mentioned at this point.

In keeping with a distinction between lexological and semological structures, the labels INST, BEN, CAUS, TEMP, and LOC are henceforth reserved for semological roles, roles which are then realized as Instrument Phrases (InstP), Beneficiary Phrases (BenP), and so on. For the present, the traditional terms Subject (S) and Object (O) are retained for the lexotactic realization of the semological AGT and PAT, respectively.

2.2.2.1 The Subject Phrase

The subject phrase is quite easily described, being nothing more than a NmP, without any prepositional marker of its syntactic function.²²

2.2.2.2 The Object Phrase

As illustrated by sentences (1) and (2), repeated here again, clause position alone can distinguish subjects and objects:

(1) Mijery ny vehivavy ny lehilahy.
 see the woman the man
 'The man sees the woman.'

(2) Mijery ny lehilahy ny vehivavy.
 see the man the woman
 'The woman sees the man.'

In some instances, however, proper names, certain kinship terms, and some demonstratives are preceded by the preposition an when functioning as objects.²³ Pronominal objects, on the other hand, are expressed by what Garvey (1964b: 41) called the Dependent Personal Pronouns (DPs); these are presented in Table 2.VIII.

Table 2.VIII: Independent Personal Pronouns (IPs) and Dependent Personal Pronouns (DPs).

<u>IP</u>	<u>DP</u>	<u>GLOSS</u>
aho	ahy	1SG
ianao	anao	2SG
izy	azy	3SG, 3PL
izahay	anay	1PL EXCL
isika	antsika	1PL INCL
ianareo	anareo	2PL

Figure 2.25 shows the portion of the lexotactics which accounts for the object phrase. In this figure, the DIAMOND labeled ^L/0/ is seen to be ultimately connected to the role sememe ^S/PAT/. Below the

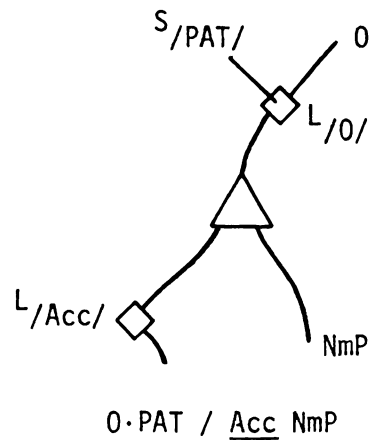


Figure 2.25: The lexotactic object phrase.

DIAMOND is an ORDERED AND which relates a DIAMOND labeled $L/Acc/$ (for Accusative) to a following NmP. The algebraic formula below the figure introduces a new notational convention: underlining determined elements. Underlining indicates an indirect rather than a direct connection to the semology. $L/Acc/$ has a number of realizations; with most NmPs it is realized as zero, as in (1) and (2) above. In some instances it is realized as an, as in (17) and (18), and in others it is realized as a(n)- and participates in the conditioning of the Dependent Personal Pronouns, as in (19).

- (17) Mijery an-dRabe aho.
 see Acc-Rabe 1SG
 'I see Rabe.'
- (18) Mitady an'ity boky ity aho.
 buy Acc-this book this 1SG
 'I'm buying this book.'
- (19) Miandry anao ny mpampianatra.
 wait-for Acc-2SG the teacher
 'The teacher is waiting for you.'

The basic structure of the object phrase assumed in this work has now been specified, and other phrase types can be examined.

2.2.2.3 The Instrument Phrase

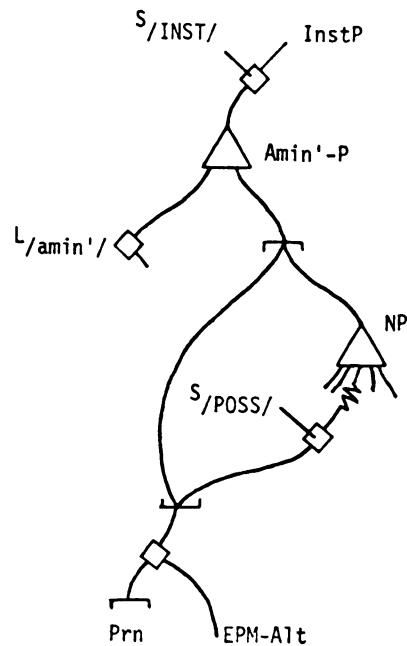
The Instrument Phrase (InstP) is most commonly introduced by the preposition amin'.²⁴ In traditional terms, this preposition 'governs' the Enclitic Person-Markers (EPMs), and it must be followed by either the Noun Phrase (NP) or a lexotactic structure which specifies the proper alternation for pronouns (i.e., EPM-Alt); cf. sentences (20) and (21):

(20) Mikapa hazo amin'ny famaky izy.
 chop trees with the axe
 'She's cutting trees with the axe.'

(21) Mikapa hazo aminy izy.
 chop trees with-3SG(EPM) 3SG
 'She's chopping trees with it.'

The lexotactic structure which accomplishes this is given in Figure 2.26. The ORDERED AND labeled Amin'-Phrase (Amin'-P) recurs in several other syntactic positions, as described below in Section 2.2.2.5.1.

Comparing Figure 2.26 with Figure 2.19 and Figure 2.20, one can see that EPM-Alt is no longer treated as a direct realization of the sememe ^S/POSS/; instead it is a determined realization automatically associated with certain syntactic positions. Thus the occurrence of the EPM form of a pronoun does not imply possession, unless, of course, it actually occurs as a realization of ^S/POSS/ within the NP. An example of this type of expression is shown in (22), where the EPM -nao 'your' serves as the realization of ^S/POSS/ and 2SG. The utterance



InstP·INST / Amin'-P
 Amin'-P / amin' (NP, Prn·EPM-Alt)

Figure 2.26: The lexotactic structure of the Instrument Phrase (InstP).

in (23), on the other hand, could only be interpreted to mean that 'you' are used as an instrument in some fashion.

(22) Mikapa hazo amin'ny famakinao izy.
 chop trees with the your-axe 3SG
 'She's cutting trees with your axe.'

(23) ? Mikapa hazo aminao izy.
 chop trees with-you 3SG
 'She's using you to cut trees.'

2.2.2.4 The Beneficiary Phrase

The Beneficiary Phrase (BenP) as described in this work is quite straightforward, being nothing more than the determined preposition ho (often glossed as 'to' or 'for') followed by the same structure

found in the object phrase, namely, Acc NP.²⁵ The diagram for the BenP is given in Figure 2.27.

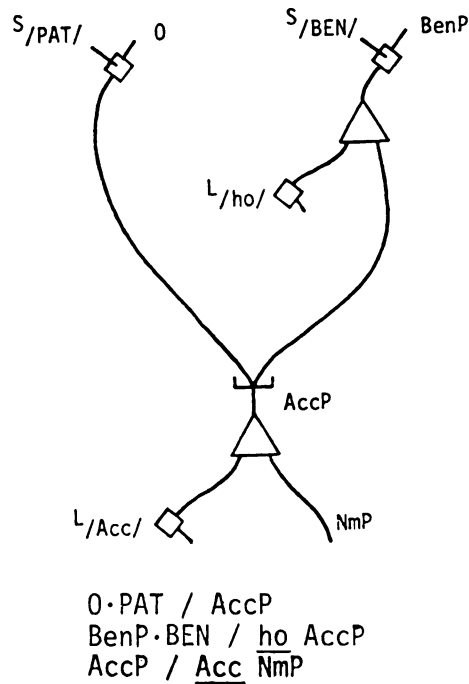


Figure 2.27: The structure of the Beneficiary Phrase (BenP) and its relation to 0 and AccP.

Note that the Acc NmP structure has been labeled AccP, for Accusative Phrase, to preserve the distinction between 0 and the BenP. It is not correct to say that the BenP is related to a structure of the form ho 0, because 0 is related to the sememe $S/PAT/$ whereas the BenP is not, being instead related to the beneficiary role sememe $S/BEN/$. Figure 2.27 includes 0, and the formulas for 0 and BenP below the diagram made the connections to semological roles explicit.

2.2.2.5 Locative and Temporal Phrases

These phrase types are described together for two primary reasons. First, the discussion of each is quite cursory. There are a number of sub-types of time and location expressions, many of which may occur in combination, and to catalogue and describe them here would have little relevance to the main topics of this work.²⁶ Second, both types of phrases share certain structural similarities, among them the use of amin' and inflection for tense.

2.2.2.5.1 The Locative Phrase

The Locative Phrase (LocP) as assumed here has the form shown in Figure 2.28, where it is seen that an optional Locative (Loc) is

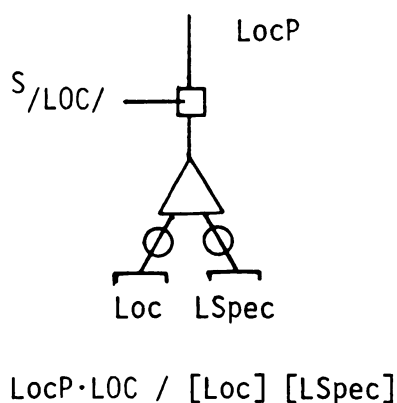


Figure 2.28: The basic structure of the Locative Phrase (LocP).

followed by an optional Locative Specifier (LSpec). Table 2.IX gives some of the more common locatives; the Roman numerals I through V indicate relative distance from the reference point, with I being nearest. Note that the visible/invisible distinction is marked by the vowel relation e/a.²⁷



Table 2.IX: Some Malagasy locatives.

<u>DISTANCE</u>	<u>VISIBLE</u>	<u>INVISIBLE</u>
I	ety	aty
II	eto	ato
III	eo	ao
IV	ery	ary
V	eny	any

Locative Specifiers are for the most part prepositional phrases, and there are a number of prepositions which communicate spatial relationships. Some of these prepositions govern the Enclitic Person-Markers (EPMs), as in (24), others govern the Dependent Personal Pronouns, as in (25).

(24) anilako
beside-1SG(EPM)
'beside me'

(25) lavitra ahy
far-from 1SG(DP)
'far from me'

Figure 2.29 shows how these could be integrated into a more delicate treatment of locative expressions, although for reasons of brevity and relevance these structures are not discussed further. In the figure, the abbreviation P_{epm} stands for the set of prepositions which govern the Enclitic Person-Markers and P_{dp} for the set of prepositions governing the Dependent Personal Pronouns. Note, too, that one possible member of the LSPEC set is the Amin'-P, which has been discussed previously.²⁸

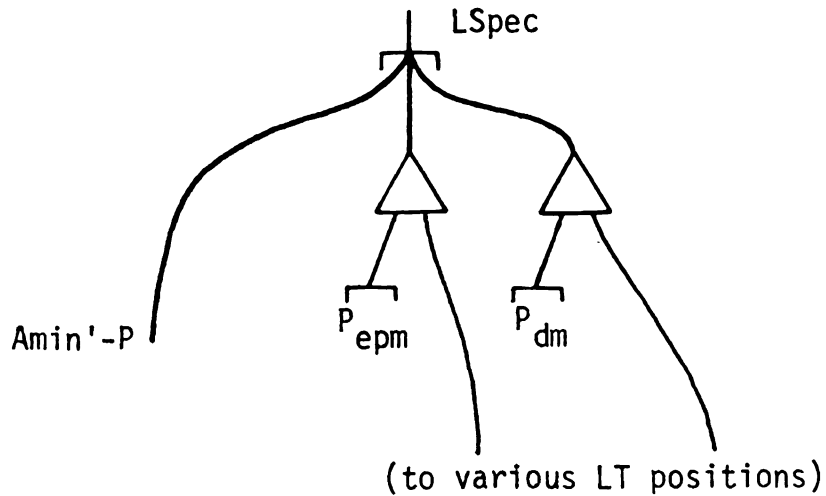


Figure 2.29: Further details of the LSpec construction, indicating prepositional government.

2.2.2.5.2 The Temporal Phrase

The structure of the Temporal Phrase (TempP) as assumed in this work is given in Figure 2.30.²⁹ Here there is a class of Temporal

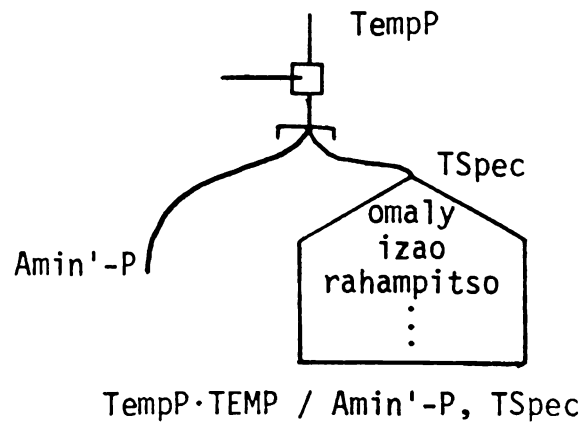


Figure 2.30: The Temporal Phrase (TempP).

Specifiers (TSpec) such as omaly 'yesterday,' izao 'now,' and rahampitso 'tomorrow,' and also a connection to the lexotactic Amin'-P for dealing with expressions such as those in Table 2.X.

Table 2.X: Some temporal expressions with amin'.

<u>MALAGASY</u>	<u>GLOSS</u>
amin' ny folo the ten	at ten (o'clock)
amin' ny Zoma the Friday	(on) Friday
amin' ny herinandro ambony the week next	next week
amin' ny roa Avrily the two April	(on) April second

2.2.2.6 The Causal Phrase

Although there are several ways of indicating causation or reason in Malagasy, the only one to be treated here is the Causal Phrase (CausP), which takes the form of the preposition noho 'because, on account of' followed by a Nominal Phrase, as shown in (26) and (27):

- (26) Tsy mandeha aho noho ny orana.
not go 1SG because-of the rain
'I'm not going because of the rain.'
- (27) Mianatra malagasy ve ianao noho Rabe?
study Malagasy Q 2SG on-account-of Rabe
'Are you studying Malagasy on account of Rabe?'

Figure 2.31 illustrates the structure of the CausP.

2.3 Summary of Basic Word Order and Phrase Types

Before the introduction of the next topic, summaries of the basic word order and phrase types are given in Table 2.XI and Figure 2.32. The table presents all formulas for the assumed lexotactics, thus providing a stratificational analog to a phrase structure grammar. The

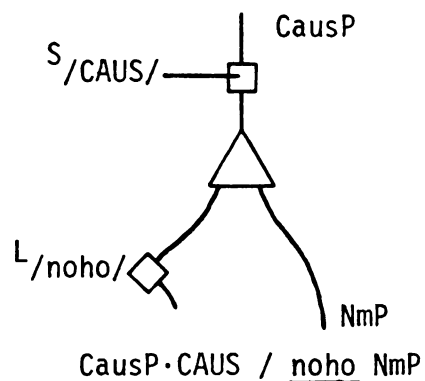


Figure 2.31: The Causal Phrase (CausP).

Table 2.XI: Formulas for the lexotactic structure of the Malagasy simple clause.

Clause / V [0] [InstP] [BenP] [Adv] [Adv] S ([Adv], BenP, CausP)
 O·PAT / AccP
 InstP·INST / Amin'-P
 BenP·BEN / ho AccP
 Adv / LocP, TempP
 S·AGT / NmP
 CausP·CAUS / noho NmP
 LocP·LOC / [Loc] [LSpec]
 TempP·TEMP / Amin'-P, TSpec
 LSpec / Amin'-P, PP
 AccP / Acc NmP
 Amin'-P / amin' (NP, EPM)
 NmP / NP, PrnP
 NP / (Art, [Dem]) N [Poss] [Num] [Adj] [Dem=]
 PrnP / [Prn] [Dem]
 Poss·POSS / EPM
 EPM / Prn·EPM-Alt

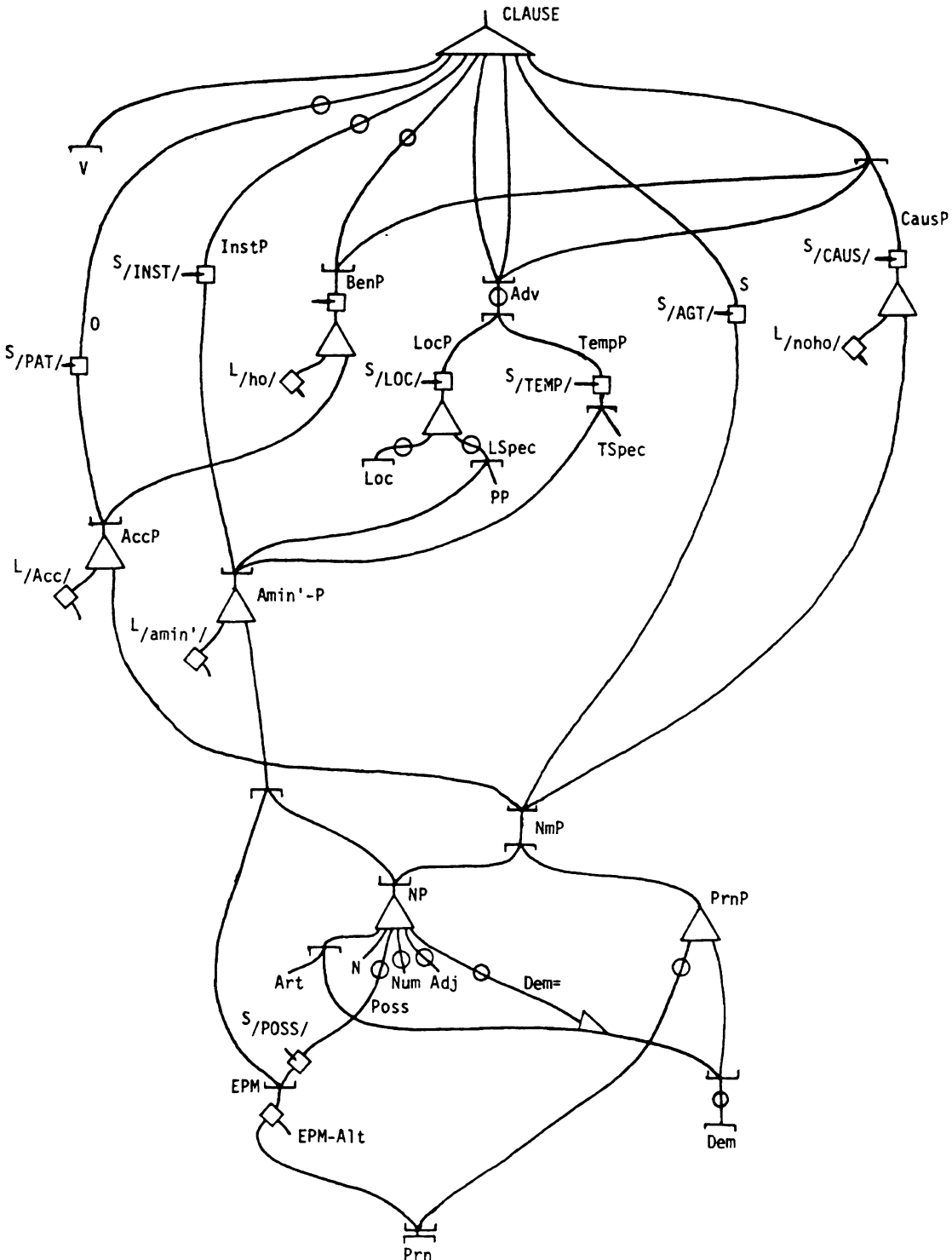


Figure 2.32: The network diagram corresponding to Table 2.XI.

Figure presents the network diagram corresponding to the formulas, illustrating that the syntactic description, cursory though it is, has no "loose ends" and is thus a unified statement.³¹

2.4 Highlighting Phenomena

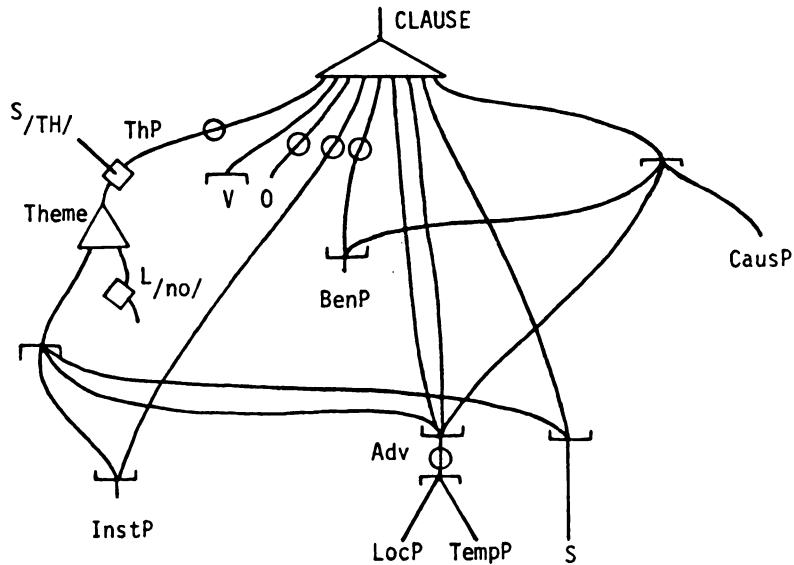
To paraphrase Lockwood in press, highlighting is a generic term used to cover various ways of singling out certain participant or circumstantial expressions in clause structures and marking them by various devices (p. 1). In this section, two of the major highlighting devices of Malagasy are discussed: thematization and voice.

2.4.1 The Theme Construction

There is a structure in Malagasy wherein certain clause constituents can precede the normally clause-initial verb; in this structure, the constituent appearing in the pre-verb position is normally followed by the particle no. This structure will henceforth be referred to as the Theme Construction (Theme). As an example, the thematic version of (28) is (29):

- (28) Mipetraka ny mpampianatra.
 sit-down the teacher
 'The teacher is sitting down.'
- (29) Ny mpampianatra no mipetraka.
 the teacher sit-down
 'It's the teacher who is sitting down.'

Of the constituents treated here, the Object, Beneficiary Phrase, and Causal Phrase cannot precede the verb in the theme construction.³² In Figure 2.33, which shows a preliminary integration of Theme into the clause, the Theme Construction is assumed to be under the control of a sememe which occurs with the semological entity to be thematicized;



CLAUSE / [ThP] V [0] [Inst] [BenP] [Adv]
 [Adv] S (BenP, [Adv], CausP)
 ThP·TH / Theme
 Theme / (InstP, [Adv], S) no
 Adv / LocP, TempP

Figure 2.33: A preliminary network for the Theme Construction.

in accordance with the terminology of Lockwood in press, this sememe is labeled $S/TH/$, for THEME.

Figure 2.34 shows that in terms of semotactic relationships, $S/TH/$ occurs only with AGT, INST, LOC, and TEMP entities. It cannot occur with PAT, BEN, and CAUS entities. The figure also illustrates the use of a structure designed to ensure that there is no more than one occurrence of $S/TH/$ per predication. Note that a predication need not have a token of $S/TH/$, however. The network functions as follows: the node labeled A relates the PREDICATION to the UPWARD UNORDERED AND node D via line B. The OPTIONALITY ELEMENT at E allows either $S/TH/$ or zero to occur with a semotactic Entity Cluster (EC) and its associated role. Once $S/TH/$ is chosen, however, it cannot occur again, since line B is

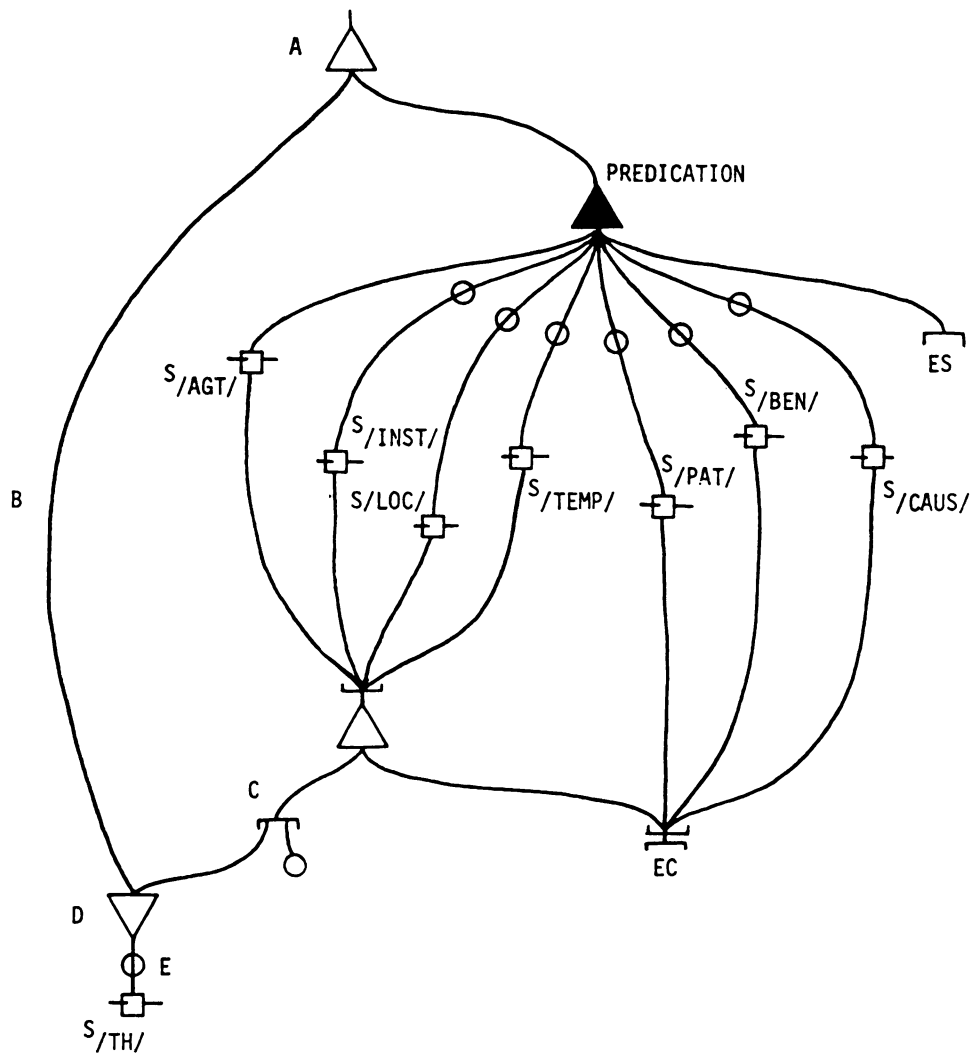


Figure 2.34: The semotactic relationships of $S/TH/$.

only activated until it is used. After $S/TH/$ has occurred once (if at all), the zero option at node C must be taken for all other semotactic constituents.³³

This completes the preliminary discussion of the Theme Construction. This initial treatment (and others) are revised somewhat in the course of discussing the next topic, voice phenomena.

2.4.2 Voice Phenomena

The topic of voice is certainly one of the most durable in linguistic literature, and it is not possible to do more than sketch the general nature of the Malagasy system here. Malagasy has an ACTIVE voice (ACT), which can be considered the unmarked voice, implying semological focus on the agent. There is also a PASSIVE voice (PASS), which codes focus on the patient (as does the English passive). Finally, there is a second passive, usually referred to as the RELATIVE or CIRCUMSTANTIAL voice. The term CIRCUMSTANTIAL (CIRC) is preferred in this work, since this voice indicates focus on such circumstantial semological elements as the beneficiary, time, location, and instrument.³⁴

The type of data dealt with in this section is exemplified by the sentences in Table 2.XII, in which all the verbs are based on the root vidy 'buy.' The left-hand column indicates which participant is in focus, and the surface subject is underlined.

As previously noted, in the active voice the subject—which realizes the semological agent—appears toward the end of the clause. In the passive and circumstantial voices, however, the agent is realized immediately after the verb. If the agent is realized as a pronoun, the pronoun is an Enclitic Person-Marker, e.g., novidiko 'bought-by-me.' Here the first person singular lexeme appears in its enclitic form -ko (cf. Section 2.2.1.1).

Various details of the semological relationships involved in the realization of voice are presented in the following sections. Since the active is considered unmarked, it is treated first.³⁵

Table 2.XII: Data on voice in Malagasy.

<u>FOCUS</u>	<u>EXAMPLE</u>
AGT	Nividy ny boky ho an' ny ankizy <u>ny vehivavy</u> . bought-ACT the book for the children the woman 'The woman bought the book for the children.'
PAT	Novidin' ny vehivavy ho an' ny ankizy <u>ny boky</u> . bought-PASS the woman for the children the book 'The book was bought by the woman for the children.'
BEN	Nividianan' ny vehivavy ny boky <u>ny ankizy</u> . bought-CIRC the woman the book the children 'The children were bought the book by the woman.'
AGT	Nividy ny boky tamin' ny vola <u>ny vehivavy</u> . bought-ACT the book with the money the woman 'The woman bought the book with the money.'
INST	Nividianan' ny vehivavy ny boky <u>ny vola</u> . bought-CIRC the woman the book the money 'The money was used by the woman to buy the book.'
AGT	Nividy ny boky omaly <u>ny vehivavy</u> . bought-ACT the book yesterday the woman 'The woman bought the book yesterday.'
TEMP	Nividianan' ny vehivavy ny boky <u>omaly</u> . bought-CIRC the woman the book yesterday 'It was yesterday that the woman bought the book.'
AGT	Nividy ny boky tao amin' ny fivarotam-boky <u>ny vehivavy</u> . bought-ACT the book there at the bookstore the woman 'The woman bought the book at the bookstore.'
LOC	Nividianan' ny vehivavy ny boky <u>ny fivarotam-boky</u> . bought-CIRC the woman the book the bookstore 'It was at the bookstore that the woman bought the book.'

2.4.2.1 The Active Voice

2.4.2.1.1 The Lexotactic Relations of the Active Voice

With the exception of a minor point discussed below, all lexotactic relations relevant to the active voice have been specified in previous sections. The exception concerns the relation of the verb to voice lexemes. Because in this treatment the active voice is unmarked, the morphology is assumed to provide for active voice in the absence of the passive or circumstantial lexeme. Figure 2.35 illustrates the lexotactic structure of the Verb (V) which results from this approach. Here the zero option on the line leading to the class of voice lexemes (Vc) accounts for the unmarked active (ACT). The lexemes are related via an UNORDERED AND to the class of verb lexemes (Vb).

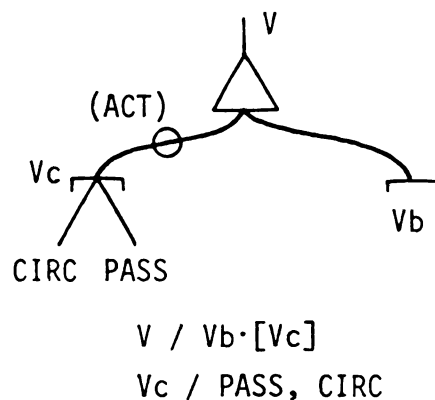


Figure 2.35: The lexotactic relations of verb and voice lexemes.

2.4.2.1.2 The Semotactic Relations of the Active Voice

The semological structure necessary to account for the active voice has also been presented in previous sections, especially in

the discussion of the theme structure in Section 2.4.1.

In the analysis of Malagasy proposed in this work, the semological entity in focus always occurs as the lexotactic subject, and the unmarked state of affairs is taken to be focus on the agent. From this it follows that there can be no distinction, in the active voice, between an agent marked for focus and an agent unmarked for focus.

In Figure 2.36, which depicts a fragment of the semotactics, there is a syncretization of the sememic role AGT and the sememe of focus $S/FOC/$, whose further semotactic relations are not at this point specified. Note that both $S/FOC/$ and $S/AGT/$ relate to the lexotactic subject position via the line SPos.

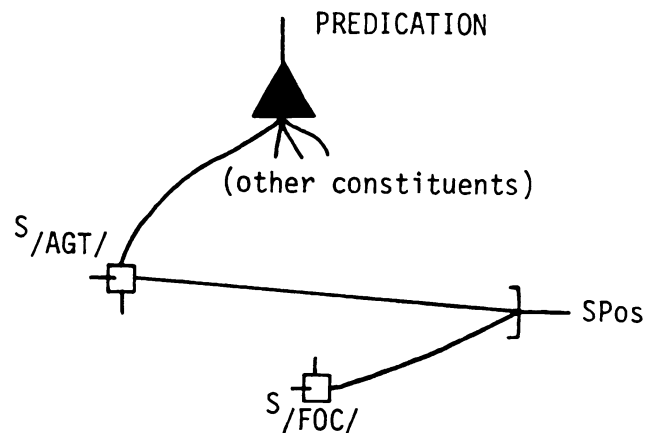


Figure 2.36: The syncretization of $S/AGT/$ and $S/FOC/$.

To understand more thoroughly the semotactic distribution of $S/FOC/$, it is useful to proceed to a discussion of the passive voice.

2.4.2.2 The Passive Voice

To recapitulate, the term passive is used here to describe that voice which signals semological focus on the patient. Witness the active clause (30) and its passive counterpart (31):

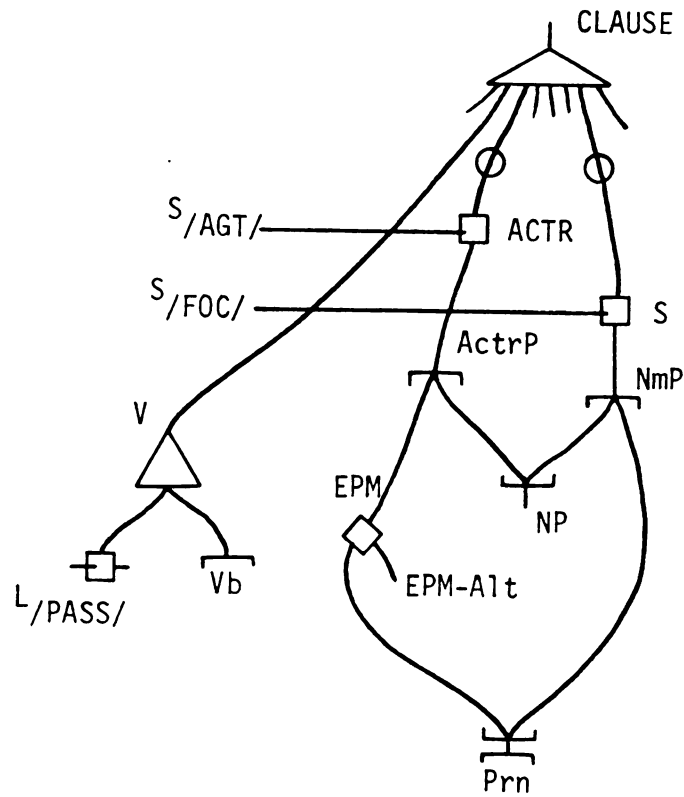
- (30) Misotro ny ronono ny saka.
 drink-ACT the milk the cat
 'The cat drinks the milk.'
- (31) Sotroin' ny saka ny ronono.
 drink-PASS the cat the milk
 'The milk is drunk by the cat.'

As this pair of sentences illustrates, the realization of the passive voice involves both verbal morphology and word order. The lexotactic relations are straightforward, and are given next.

2.4.2.2.1 The Lexotactic Relations of the Passive Voice

Figure 2.37 sketches the basic lexotactic structure of the passive; certain clause relations are implied, but not fully specified, in the interest of clarity. As shown, there is a connection between the sememe $S/FOC/$ and the subject position (S). Additionally, there is a syntactic position directly following the verb which accommodates the realization of the agent in non-active voices; this position is termed the ACTOR (ACTR), and is related to the Actor Phrase (ActrP).³⁶

ACTR is a realization of the sememe $S/AGT/$, and the surface subject S is a realization of the sememe $S/FOC/$. The next section presents these higher-level relationships in greater detail.



CLAUSE / ...V [ACTR·AGT] ... [S] ...
 V / Vb·PASS
 FOC·S / NmP
 ActrP / NP, EPM
 NmP / NP, Prn
 EPM / Prn·EPM-Alt

Figure 2.37: The basic lexotactic structure of the passive.

2.4.2.2.2 The Semotactic Relations of the Passive Voice

The basic semotactic configuration which accounts for the passive voice is given in Figure 2.38. Here again there is a structure which

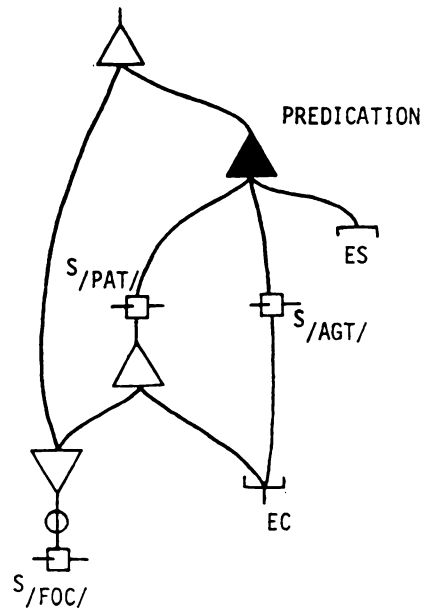


Figure 2.38: The semotactic relations for the passive.

ensures only one occurrence of $S/FOC/$ per predication; cf. the discussion of a similar structure in connection with $S/TH/$ in Section 2.4.1. In Figure 2.38 the class of event sememes (ES) is related to an agent and a patient via an ASSOCIATIVE AND. The agent relates directly to the Entity Cluster (EC), whereas the AND below the DIAMOND representing the sememe $S/PAT/$ relates an Entity Cluster to an optional occurrence of $S/FOC/$ via the UPWARD UNORDERED AND and the OPTIONALITY ELEMENT just below it.

To illustrate how the semology of the passive is related to its corresponding lexology, the semolexic relations of the sememes $S/FOC/$, $S/AGT/$, and $S/PAT/$ are next explored.

2.4.2.2.3 Semolexic Relations for the Passive Voice

The principal discrepancies between the semotactic and lexotactic structures for the passive are as follows: (1) the realization of the agent as the surface ACTOR immediately after the verb, (2) the marking of the verb itself for passive voice, and (3) the realization of the focused patient as the surface subject. The network which illustrates the relevant relations is given in Figure 2.39. Note that the ORDERED

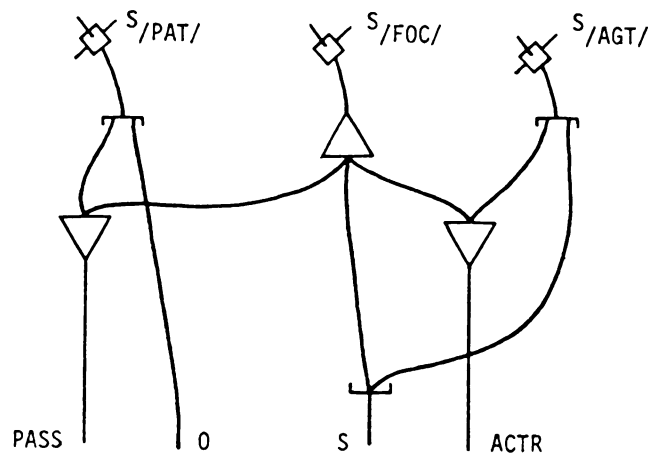


Figure 2.39: The semolexic relations for the passive.

OR nodes just below $S/PAT/$ and $S/AGT/$ ensure that in the absence of $S/FOC/$, $S/PAT/$ is realized as the surface object (O) and $S/AGT/$ as the surface subject (S).

2.4.2.3 The Circumstantial Voice

The semotactic treatment of the passive is easily extended to account for the circumstantial voice; it is sufficient to specify which circumstantial entities can optionally occur with $S/FOC/$. In terms of the set employed in this work, the relevant entities are

those occurring with $S/INST/$, $S/LOC/$, $S/BEN/$, $S/TEMP/$, and $S/CAUS/$.
The necessary semotactic relationships are shown in Figure 2.40.

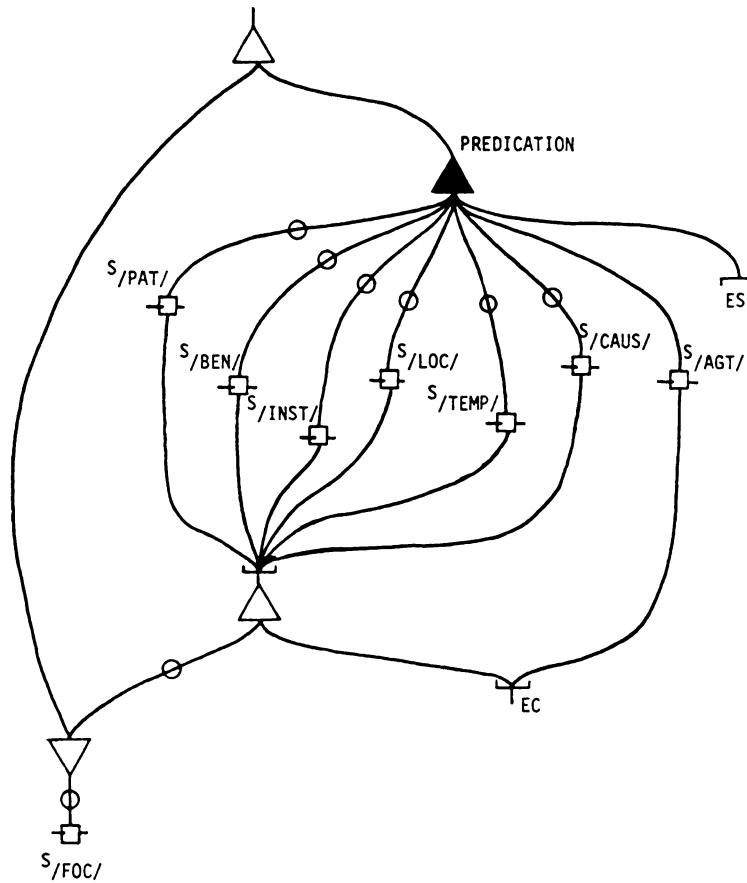


Figure 2.40: The semotactic occurrence of $S/FOC/$ with various circumstantial entities.

The lexotactic specifications for the circumstantial are determined by the semolexic relations given in Figure 2.41. Figure 2.42 integrates this figure with Figure 2.39 to account for both the passive and the circumstantial. Note that for both voices, the agent occurs as the lexotactic ACTOR and the focused entity is realized as the lexotactic subject via S.

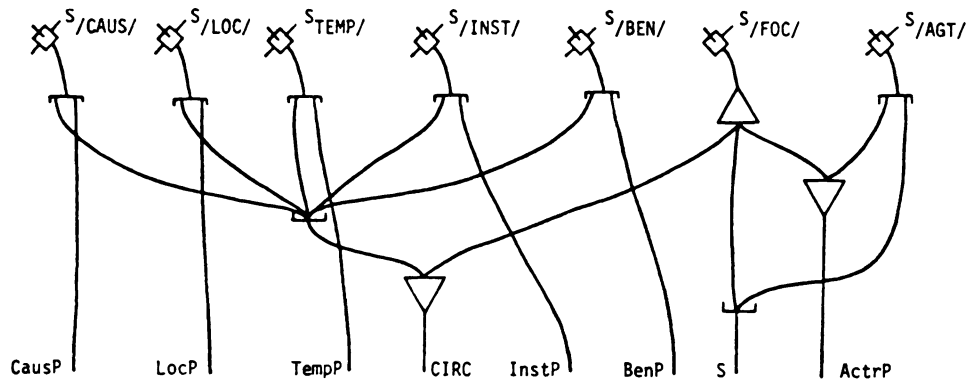


Figure 2.41: The semolexemic relations for the circumstantial.

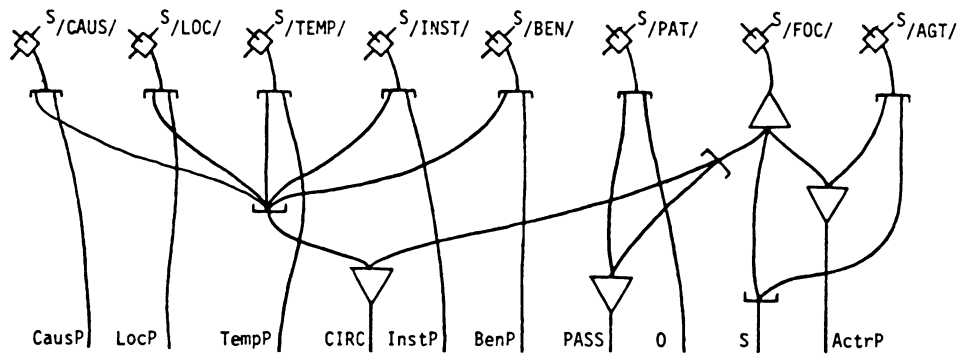


Figure 2.42: The integration of Figure 2.39 and Figure 2.41 to account for the semolexemic relations of both the passive and the circumstantial voices.

2.4.2.4 Control of the Lexotactics by Semolexemic Relations

Figure 2.43 is provided to more clearly illustrate the connections between the lexotactics and certain of the semolexemic relations discussed above; since all of the roles involved in the circumstantial voice are realized in essentially the same fashion, connections to only one, $S/INST/$, are shown.

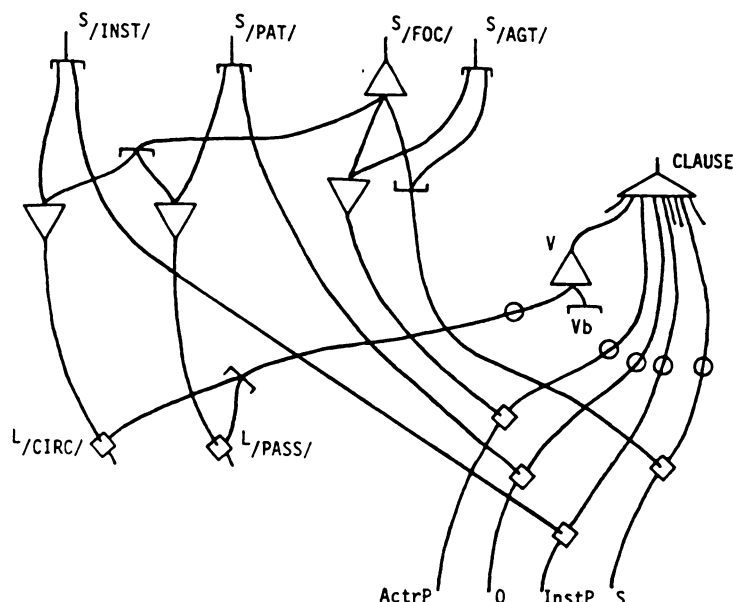


Figure 2.43: The interaction of certain semolexic relations with the lexotactics.

2.4.2.5 The Interaction of Voice and Thematization

This final section on highlighting phenomena concerns the interaction of thematization—which results in the theme structure—and voice. Although the passive and circumstantial sentences (32) and (33) are grammatical, in many instances their thematized variants (34) and (35) are preferred.

- (32) Novidin' ny vehivavy ny boky.
bought-PASS the woman the book
'The book was bought by the woman.'
- (33) Nividianan' ny vehivavy ny boky ny vola.
bought-CIRC the woman the book the money
'The woman used the money to buy the book.'
- (34) Ny boky no novidin' ny vehivavy.
the book bought-PASS the woman
'It was the book that was bought by the woman.'
- (35) Ny vola no nividianan' ny vehivavy ny boky.
the money bought-CIRC the woman the book
'It was the money that the woman used to buy the book.'

Sources disagree as to whether thematization with certain entities is optional or obligatory when such entities occur in the passive or circumstantial voice.³⁷ Randriamasimanana's evaluation, summarized in Table 2.XIII, is followed here. It represents the widest range of

Table 2.XIII: The occurrence of thematization with respect to role and voice. (Based on Randriamasimanana's Table 12 (1981: 292).)

ROLE	VOICE		
	ACTIVE	PASSIVE	CIRCUMSTANTIAL
AGT	+	-	-
PAT	-	+	-
INST	+	-	+
BEN	-	-	+
LOC	+	-	+
TEMP	+	-	+
CAUS	-	-	+

variation among the studies consulted; hence the successful treatment of this data necessarily includes the mechanics to deal with alternate, simpler analyses.

In the table, obligatory thematization is indicated with a plus sign (+), the impossibility of thematization with a minus sign (-), and the optionality of thematization with a combination of the two (+). Thus thematization is optional for the agent in the active voice, but impossible in either the passive or circumstantial voice. Similarly,

in Randriamasimanana's opinion, thematization of the beneficiary is not possible in the active or passive voice, but is optional in the circumstantial.

It seems that for passive and circumstantial expressions, only the focused entity can appear in the theme position. For example, in the passive sentence (36), where the subject is ny boky 'the book,' thematization of the subject is grammatical, as in (37), but thematization of an oblique constituent such as omaly 'yesterday,' as in (38), is not:

- (36) Novidin' ny vehivavy omaly ny boky.
bought-PASS the woman yesterday the book
'The book was bought by the woman yesterday.'
- (37) Ny boky no novidin' ny vehivavy omaly.
the book bought-PASS the woman yesterday
'It was the book that was bought by the woman yesterday.'
- (38) ? Omaly no novidin' ny vehivavy ny boky.
yesterday bought-PASS the woman the book
'It was yesterday that the book was bought by the woman.'

Similarly, in the circumstantial voice, expressions such as (39) and (40) are fine, but thematization on a non-focused entity, as in (41), is not:

- (39) Nividianan' ny vehivavy ny boky ve ny vola omaly?
bought-CIRC the woman the book Q the money yesterday
'Was the money used by the woman to buy the book yesterday?'
- (40) Ny vola ve no nividianana' ny vehivavy ny boky omaly?
the money Q bought-CIRC the woman the book yesterday
'Was it the money that was used the the woman to buy the book yesterday?'
- (41) ? Omaly no nividianan' ny vehivavy ny boky ve ny vola?
yesterday bought-CIRC the woman the book Q the money
'Was it yesterday that the money was used by the woman to buy the book?'

Note that the question particle ve, which precedes the subject in non-thematized clauses and follows it in theme position, is used here to ensure that it is ny vola 'the money' that is interpreted as subject rather than omaly 'yesterday,' since in the circumstantial voice either one is a potential subject.

The analysis proposed here reflects the apparent restrictions on the co-occurrence of theme and focus. If they can indeed vary independently within the same predication, the present approach would be simplified rather than complicated.³⁸

Figure 2.44 illustrates in an abbreviated manner the semotactics which accounts for the situation mentioned above. The OR node labeled HIGHLIGHTING, the four UPWARD AND nodes (H-1, H-2, H-3, and H-4), and the OPTIONALITY ELEMENTS (A, B, C, and D) accomplish two functions: (1) they ensure that only one highlighted participant occurs per predication, and (2) they define the combinations of $S/FOC/$ and $S/TH/$ that can occur with various entities.

The agent can thus optionally occur with $S/TH/$ but not with $S/FOC/$. The causal entity can optionally occur with $S/FOC/$, in which case a nondistinctive token of $S/TH/$ occurs (resulting in the theme construction). $S/PAT/$ and $S/BEN/$ can be optionally focused, and, if and only if so, optionally thematized. Finally, entities occurring with any one of the roles $S/INST/$, $S/LOC/$, or $S/TEMP/$ can occur with either $S/TH/$ or $S/FOC/$, or with both.

The node labeled HIGHLIGHTING is activated concurrently with the semotactic PREDICATION via the unshaded UNORDERED AND at the top of the figure; once the non-zero option has been taken at node A, B, C, or D, however, the HIGHLIGHTING node is satisfied and cannot be used



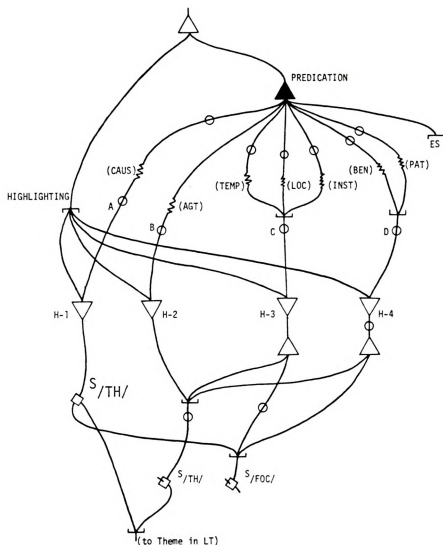


Figure 2.44: Co-occurrence restrictions for highlighting sememes and semological roles.

again until a new predication is processed. In this way $S_{/TH/}$, $S_{/FOC/}$, and combinations thereof are prevented from occurring more than once per predication.

2.4.3 An Excursus on Prepositions

Before the next chapter, brief mention of variation in the occurrence of certain lexotactic prepositions needs to be made. It is

primarily with the theme construction that such variation occurs, and again, there is disagreement among sources as to the extent and frequency of the phenomenon.

Randriamasimanana (1981: 281-282, 292), for example, maintains that in circumstantial expressions, the preposition expressing causation, noho, must occur in the obligatorily thematized subject constituent; Rajemisa-Raolison (1966: 113), while agreeing that the theme is obligatory, disagrees by stating that noho is optional.

With respect to the instrument phrase, both Randriamasimanana (1981: 276-278, 292) and Rajemisa-Raolison (1966: 113) agree that the preposition amin' is optional in the circumstantial voice, but Rajaona (1972: 535) ascribes a difference in meaning to (42) and (43) below.³⁹

- (42) Amin' ity antsy ity no andidian' i Koto mofo.
 this knife this cut-CIRC Koto bread
 'It is by means of this knife that Koto cuts bread.'
 'C'est par le moyen de ce couteau que Koto coupe du pain.'
- (43) Ity antsy ity no andidian' i Koto mofo.
 this knife this cut-CIRC Koto bread
 'It is with this knife that Koto cuts bread.'
 'C'est avec ce couteau que Koto coupe du pain.'

It is not presently clear, however, whether this difference holds for other prepositions which are optional in thematized structures, or only for the instrumental use of amin'.

If it is the case that the meaning difference cited by Rajaona is spurious, simple optionality of a preposition in the theme construction can be treated with a network of the form shown in Figure 2.45. Here the UNORDERED OR node with the zero option under control of the theme construction (details not shown) allows the preposition amin' to occur

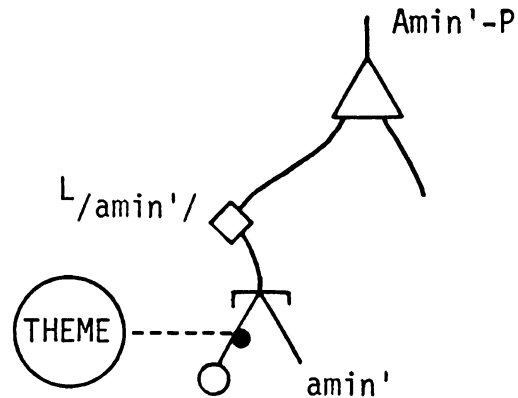


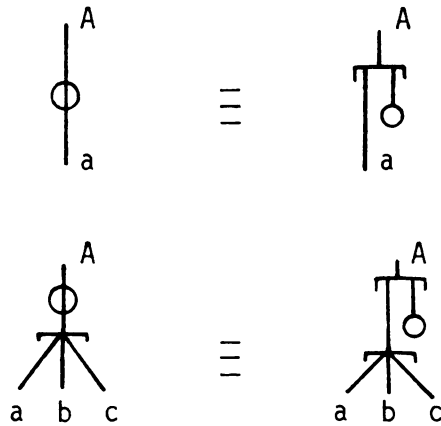
Figure 2.45: An approach to optional prepositions in the theme construction.

in "free variation" in the thematized structure, with amin' necessarily appearing elsewhere.⁴⁰

In the active voice, the only notable variation is that cited above for the instrumental use of amin' (Randriamasimanana 1981: 276-278, 292). Variation in the passive and circumstantial voices is more problematic, but as is shown in the next chapter, reflexive expressions cannot occur in these voices; thus variation in the realization of prepositions in the non-active voices is peripheral to the main concerns here. The ramifications of such variation for a more detailed treatment of Malagasy are therefore left unexplored in the present work.

NOTES TO CHAPTER 2

1. The **OPTIONALITY ELEMENT** is equivalent to an **ORDERED OR** with zero as one option, as shown below:



2. In this work, # indicates syntactically well-formed but semantically odd or nonsensical utterances. The symbol * indicates syntactically ill-formed utterances, and ? marks questionable or unattested forms. Sentence (3) is syntactically grammatical (VOS), but semologically ungrammatical.
3. It is a general principle in stratificational descriptions that restrictions on one part of the analysis (e.g., the semology) need not be repeated on another (e.g., the lexology). Cf. Lockwood MS: 5:45-53 and Lockwood 1980: 48.
4. Sampson uses the term relational grammar in the discussion cited, but he is clearly applying it to Lamb's work (and Hjelmslev's glossematics) and not the theory developed by Postal and

Perlmutter (1983) which bears the same name.

5. In stratificational theory, the term role is usually reserved for semological relationships, case being reserved for lexological and morphological phenomena. Cf. Section 2.1.2 below. The terms entity and event are used here as labels for classes of linguistic analogs of perceptions, memories, and so on, that are presumably located in the conceptual system and related to the linguistic system across an interface (Herrick 1983). Entities are usually (but not always) realized as nominals or pronominals, and events as verbs.
6. For further discussion of the need for ASSOCIATIVE ANDs (also called ARBITRARILY SEQUENTIAL ANDs), see Lockwood MS: 5:21-22; Lockwood 1972: 152, 154; and Blansitt 1978: 240-241.
7. Cf. also Sampson's Chapter 7, Syntax and Meaning (1975: 137-167); the approach to semology assumed in this dissertation seems to be compatible with Sampson's notion of a restricted semantic description (p. 157). For a stratificational approach to the interpretation of sentences which violate selectional restrictions, see Makkai 1971.
8. Randriamasimanana's non-oblique GOAL is more-or-less equivalent to OBJECT as used here. With certain verbs, however, OBJECT would correspond to Randriamasimanana's INTERMEDIARY; cf. Randriamasimanana 1981, Chapter 5, Passivization, especially pp. 243-259.

Cf. also Keenan's related discussion of the intermediate voice. He concludes that the goal voice and the intermediate voice can be conflated as a passive voice for many purposes (1976a: 255-259). His approach is followed in the present work.

9. The ubiquity of this preposition in Malagasy evidently prompted Stark's amusing characterization of it as a "preposition meaning almost anything, and in particular 'on,' 'in,' 'with'" (1969: 9). Some authors cite this preposition as amin(a) (Dez 1980: 76-77, Randriamasimanana 1981: 273, Rajaona 1972: 730), while others cite it as amy (Rajemisa-Raolison 1966: 143). In the present work it is cited as amin'.
10. Consultant work also indicates that many variations are determined by discourse considerations. Any treatment of Malagasy word-order (including this one) which does not take such factors into consideration is therefore incomplete. Regrettably, this matter cannot be dealt with here.
11. The sentence in question is the following:

Miresaka eny an-dalana isan' andro amin' ny rain'
 speak there on-road every day with the father-of

i Solo ny zokin' i Koto.
 Solo the grandfather-of Koto

'Koto's grandfather speaks to Solo's father every day there in the road.'

Since Rajaona provides no information on intonation and pauses, both of which are important for determining marked versus unmarked

order in Malagasy, this sentence may not be a counterexample to Randriamasimanana's observations. Rajoana makes no comments on the (un)markedness of word order for this sentence. Cf. the discussion in Randriamasimanana 1981: 276, 286, 288, and 289. See also Domenichini-Ramiaramanana 1977: 58-73. Randriamasimanana also cites a sentence with both TEMPORAL and LOCATIVE complements before the subject, without commenting on the markedness of a TEMPORAL complement in this position (p. 285, example 87a). Finally, cf. Rajoana's discussion of the placement of 'autonomous complements,' which can occur in several clause positions (1972: 96-97).

12. See, for example, the discussions of discourse-conditioned occurrence of the passive voice in English by Sullivan (1980: 319) and Coleman (1982: 97-137), the treatment of the communicative function of word order in Finnish by Blum (1981), and the series of papers on various discourse phenomena by Copeland and Davis (Copeland 1983, 1984, 1985; Copeland and Davis 1980, 1981; and Davis and Copeland 1980).
13. Even as it stands, Figure 2.12 accounts for 288 combinations of V, S, and the various clause complements. For the method of determining the output of network diagrams, see Johannesson 1975.
14. For a proposal on how reduplication can be handled in a performance model of stratificational networks, see Christie 1977: 12.

15. Many authors (e.g., Malzac 1960: 42, Rajemisa-Raolison 1966: 65, and Garvey 1964a: 113, 115) distinguish between demonstrative adjectives and demonstrative pronouns. The forms do not differ, but the two sets are not equivalent (Domenichini-Ramiaramanana 1977: 110). The differences are not germane to any issues raised in this work, but if they were accounted for, it is most likely that the demonstrative pronouns would be considered a subset of the pronoun class, the semology then precluding their co-occurrence with the demonstrative adjectives. Note, too, that Figure 2.15 (and subsequent figures) allow a zero NmP. This will account for utterances of the form (i), which is related to (ii) which has an overt pronoun in the second clause:

(i) Nankao amin' ny fivarotam-boky i Rabe ary nangataka
 went-into the bookstore Rabe and asked-for
 gazety.
 newspaper.
 'Rabe went into the bookstore and asked for a newspaper.'

(ii) Nankao amin' ny fivarotam-boky i Rabe ary nangataka
 went-into the bookstore Rabe and asked-for
 gazety izy.
 newspaper he
 'Rabe went into the bookstore and he asked for a newspaper.'

The factors which determine the zero option are related to discourse structure, and are not dealt with in this work.

16. The OPTIONALITY ELEMENT leading to the REDUPLICATION NODE is left since it is not at present clear whether the zero option at Dem would apply to the final line out of the NP node, since it must pass through the REDUPLICATION NODE.

17. Cf. Garvey's comments about the relative ordering between adjectives and numerals (1964a: 43). There is also a Num N Adj construction, as in roa pake kely 'two small packs' (literally 'two pack small') which is not treated here.
18. The present description's Enclitic Person-Markers correspond to Garvey's Post-clitic Person-Markers (1964b: 38, 40). These markers occur in certain other syntactic environments, discussed below; they also participate in several phonological alternations, none of which are relevant to issues dealt with here. That the EPMs are clitics is illustrated by the fact that they share the same lexotactic distribution as full noun phrases; cf. (i) and (ii) with (i') and (ii'):

- | | |
|--|--|
| (i) tranoko
my-house | (ii) ahitako
seen-by-me |
| (i') tranon' ny lehilahy
house-of the man | (ii') ahitan' ny lehilahy
seen-by the man |

Possessive constructions also involve a linking n (as in (i')) although the details of its behavior are unexplored here. Finally, although there are obvious generalizations to be made, no morphological analysis of the different pronominal markers is attempted.

19. The exact locus of the IP/EPM alternation, whether in the lower realizational portion of the lexology or in the morphology, is not germane and is left unformalized.
20. In a more refined treatment, various discourse considerations would

specify the conditions under which one or the other, or both, zero options could be taken. Such a treatment would also be called upon to specify when pronouns rather than noun phrases could occur (cf. Gleason 1968).

21. No expressions such as that below have been found:

ity bokiko ity
this my-book this

This leads to the conclusion that DX_{dem} and POSS are mutually exclusive. If counterexamples are found, the semotactics given here can easily be modified to account for them.

22. In certain passive constructions, this is not necessarily the case; these constructions also provide evidence for distinguishing between a subject phrase and an actor phrase. Discussion of these points is deferred until Section 2.4.2.
23. The use of an as an object marker is subject to some variation. Cf. Malzac 1960: 96-97, 127; Domenichini-Ramiaramanana 1977: 62; Rajemisa-Raolison 1966: 89; Garvey 1964b: 66-67; and Keenan 1976a: 251, 298. An account of this variation can be consigned to the morphology, however, and need to be accounted for in the present description.
24. The instrument can also appear without amin'; cf. (i) and (ii), both from Dez 1980 (p. 135). The English translations are free, with Dez's French translations beneath them.

- (i) Mikapa famaky ny hazo izy.
 chop axe the trees 3SG
 'He axe-chops the trees.'
 'Il coupe les arbres à la hache.'
- (ii) Mikapa hazo amin' ny famaky izy.
 chop trees with the axe 3SG
 'He chops trees with the axe.'
 'Il coupe des arbres avec la hache.'

Note that it is not simply that the axe is indefinite in (i) but definite in (ii), as shown by (iii):

- (iii) Mikapa hazo amim-pamaky izy.
 chop trees with-axe 3SG
 'He chops trees with an axe.'
 'Il coupe des arbres à la hache.'

This work deals only with instrument phrases such as those in (ii) and (iii).

25. There is a host of vexing problems with respect to 'beneficiaries,' 'recipients,' 'direct objects,' and 'indirect objects' and their attendant semological and lexological relationships. Certain verbs, particularly those of giving, are described as taking two objects, one of which could be conceived of as the PAT and the other the BENEFICIARY/RECIPIENT. Furthermore, the use of ho in such expressions is evidently subject to much variation related to semantic and syntactic factors. These problems are omitted here for the sake of simplicity, since they are not crucial for any points made in this work. The interested reader is referred to the following sources for details, many of which are contradictory or incomplete: Rajemisa-Raolison 1966: 88-90; Malzac 1960: 132-133; Randriamasimanana 1981: 397-407, 272, 273; Rajaona 1972: 436,

442-443, 493-494; Domenichini-Ramiaramanana 1977: 70-71; and Garvey 1964b: 61, 63-65.

26. An analysis of such expressions is not beyond the power of stratificational theory. For a book-length study of certain spatial and temporal expressions in English, see D.C. Bennett 1975. For an application of Bennett's methodology to locative expressions in Russian, see Sullivan 1984a and 1986. On the use of amin', cf. Table 2.I. For the details of tense inflection, see M.E. Bennett 1985.
27. Similarly, Demonstratives are based on the same roots as Locatives, the former having the vowel i. (Cf. some of the forms in Table 2.IV.) In a more detailed treatment of Malagasy, these different forms would all be related to one basic set of deictic lexemes (Rajaona 1972: 615-622). Cf. the treatment of EPMs, DPs, and IPs in the present work, all of which are based on the one lexemic class of pronouns (Prn). Also left out of consideration here is the reduplication of locatives to indicate a more 'definite' location than signalled by the unreduplicated form (Garvey 1964a: 112). Cf. (i) and (ii), either of which answers the question Aiza ny sekoly? 'Where is the school?'

(i) Atsy aloha.
 there(invisible) in-front
 'There ahead.'

(ii) Atsy aloha atsy.
 there(invisible) in-front there(invisible)
 'Right there ahead.'

28. For further discussion of the government of various pronominal forms by prepositions, see Rajemisa-Raolison 1966: 145 and Garvey 1964b: 60.

29. Complex temporal phrases such as that below are omitted in the interest of brevity:

anio hariva amin' ny folo
 today evening at the ten
 'this evening at ten (o'clock)

30. Aside from causative verbs, treated in detail in Randriamasimanana 1981, expressions such as noho, satria, azon' ny, and fa also communicate causation or reason. Some, e.g. satria and fa, must be followed by verbal clauses. Others, e.g., noho and azon' ny, can be followed by either nominal phrases or clauses. See Rajemisa-Raolison 1966: 143, 145, 149, and 151 for details.

31. For simplicity's sake, PP is used as an abbreviation for Prepositional Phrase in both the formulas and in the diagram when discussing the Locative Specifiers (LSpec). As mentioned in Section 2.2.2.5.1, this treatment could easily be refined.

32. Cf. Randriamasimanana 1981: 276-279, 400; Garvey 1964a: 82; and Garvey 1964b: 76. Again, various details are omitted here in the interest of brevity.

33. In a more detailed treatment of Malagasy, the discourse environments of ^S/TH/ would be integrated into the semotactics. Cf.

Sullivan 1980: 319 and Coleman 1982: 97-137, 144 on the English passive.

34. The approach to voice employed in this dissertation follows Lockwood (1984, MS: 5:9-34), Sullivan (1976, 1980), Pope (1975), and Coleman (1982). In particular, a treatment by Lockwood (class materials) of a multi-voice language of the Philippines, Kalagan, has served as the foundation of the present analysis of Malagasy voice. For a detailed survey and critique of non-stratificational approaches to the English passive, see Coleman 1982: 1-64.
35. The rich morphology of the verb with respect to voice must regrettably be left unformalized here, since the concern is mainly word-order relations in the clause. For detailed discussion of the verb morphology, see Randriamasimanana 1981: 243-253, Rajemisa-Raolison 1966: 94-117, Dez 1960: 56-74, Stark 1969 passim, and Garvey 1964b: 33-36.
36. In non-active clauses, Malagasy displays a syntactic pattern very similar to that of many Philippine languages; cf. Schachter's ACTOR and TOPIC (1977) with the present ACTOR and SUBJECT.
37. Cf. Randriamasimanana 1981: 276-292 with Rajemisa-Raolison 1966: 112-113 and Rajaona 1972: 532-538.
38. See Lockwood in press and MS 5:25-32 for approaches to co-occurrence restrictions on highlighting elements in English.

39. English translations are provided by the present author.
40. There are probably social and/or discourse factors which interact with prepositional variation. If such factors can be identified, they can likely be handled by a stratificational model of the type described in Herrick 1984.

3 REFLEXIVE EXPRESSIONS AND THEIR INTERACTION WITH HIGHLIGHTING PHENOMENA

3.0 Introduction

A background sketch of the Malagasy simple clause having been provided in Chapter 2, it is now appropriate to discuss reflexive expressions in such clauses, and the interaction of reflexives with the highlighting phenomena of thematization and voice.¹

The reflexive pronoun tena cannot occur in the lexotactic subject position (Randriamasimanana 1981: 166-167, Keenan 1976a, 1978), as shown in (1) and (2):

- (1) Manasa tena i Rabe.
wash self Rabe
'Rabe washes himself.'
- (2) * Manasa an' i Rabe tena.
wash Acc Rabe self

In addition, when this pronoun occurs in an oblique phrase, it is obligatorily possessed (Randriamasimanana 1981: 152, 166), as illustrated by (3) and (4):

- (3) Mividy boky ho an' ny tenany i Rabe.
buy book for the his-self Rabe
'Rabe is buying books for himself.'
- (4) * Mividy boky ho an' tena i Rabe.
buy book for self Rabe

With respect to possession, the reflexive pronoun tena differs from a homophonous but, it is argued, semologically distinct word tena 'body, trunk (of body or tree).' This latter thus contrasts with the reflexive, as shown in (5) and (6):

- (5) Mijery tena i Rabe.
look-at self Rabe
'Rabe is looking at himself.'
- (6) Mijery ny tenany i Rabe.
look-at the his-body Rabe
'Rabe is looking at his body.'

These two homophonous words have different semological relationships, which account for the distinctions illustrated in these examples; these relationships are explored in Section 3.3.1.1.3. Note, however, that an utterance such as (7) is ambiguous, meaning either that the soap is merely for Rabe's use ('for himself') or specifically for cleaning his body (as opposed to his car, for example).

- (7) Mividy savon ho an' ny tenany i Rabe.
buy soap for the his-body/self Rabe
'Rabe is buying soap for his body/himself.'

As mentioned above, reflexives also interact with the highlighting phenomena discussed in Chapter 2. As shown in Section 2.4, in the active voice the clause constituent O, InstP, LocP, or TempP can appear in clause-initial position when thematized. There is no restriction on the occurrence of reflexives in the theme construction, as shown in (8) and (9).

- (8) Anilan' ny tenany no mametraka ny taratasy i Rabe.
next-to the his-self put the letter Rabe
'It's next to himself that Rabe is putting the letter.'
- (9) Ho an' ny tenany no mividy ny boky i Rabe.
for the his-self buy the book Rabe
'It's for himself that Rabe is buying the book.'

On the other hand, because reflexive expressions are limited to non-subject positions in the lexotactics, they cannot occur with

semological focus, since the focused element is realized as the subject. Thus (10) is acceptable, but (11) is not. Similarly with (12) and its corresponding version in the circumstantial voice, (13). The semological relations involved in these restrictions are discussed in Section 3.3.2.

- (10) Namono tena i Koto.
killed self Koto
'Koto killed himself.'
- (11) * Novonoin' i Koto tena.
killed-PASS Koto self
- (12) Nividy boky ho an' ny tenany i Koto.
bought-ACT book for the his-self Koto
'Koto bought books for himself.'
- (13) * Novidianan' i Koto boky tena/ny tenany.
bought-CIRC Koto book self/the his-self

Within the stratificational camp, Gleason 1964 proposes an intuitively satisfying solution to the semological structure of the reflexive object in English. His treatment, shown in Figure 3.1(a),

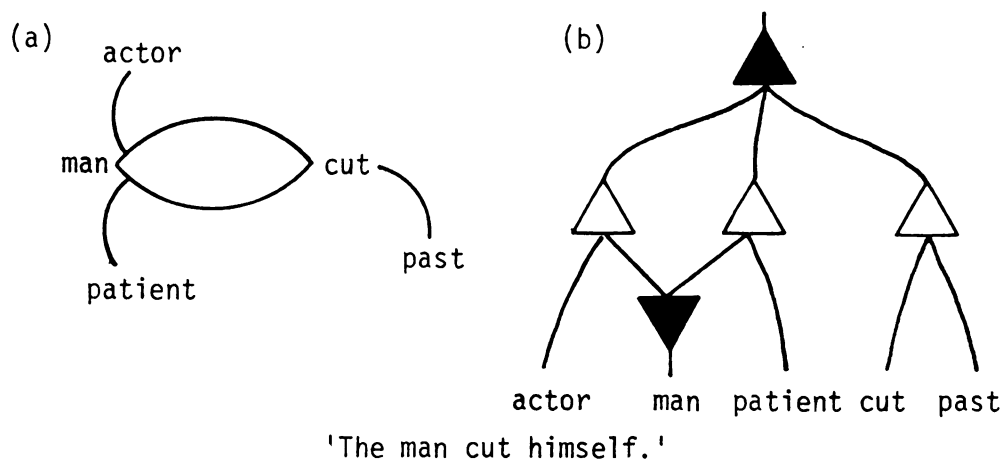


Figure 3.1: Gleason's proposal for the reflexive in English (a) and a corresponding diagram in the current network notation (b).

involves simultaneous assignment of the semological roles ACTOR and PATIENT to an entity in a predication. Gleason's diagram can be converted quite straightforwardly into the network notation employed in this work; one such conversion is shown in Figure 3.1(b). Here the UPWARD AND explicitly indicates that the man is both ACTOR and PATIENT.

The UPWARD AND has been used in several stratificational accounts of semological and conceptual phenomena where an entity is related to more than one role in a proposition of discourse (e.g., Müller 1978 and Johannesson 1980). Indeed, Sullivan (1977, 1978) has argued that the lack of an UPWARD AND-type relationship in the axiom set of transformational-generative theory is a serious deficiency.

Actually, the use of referential indices by some transformational linguists is in some sense analogous to the use of UPWARD ANDs. The use of indices to account for reflexives is discussed in Sampson 1969, where he concludes that reflexive expressions are perhaps to be accounted for through the use of an underlying structure such as (14):

(14) j hates j

In this type of structure, the index j denotes an entity which may have any number of possible lexicalizations: 'the teacher,' 'Mr. Jones,' 'my former landlord,' and so on.

The semological analysis of Malagasy reflexives proposed in this work combines elements of both Gleason's simultaneous role assignment and Sampson's indexing approach; the result is Figure 3.2.

In this diagram, the UPWARD ORDERED OR is intended to capture the fact that the agent can always be realized, even if there is no

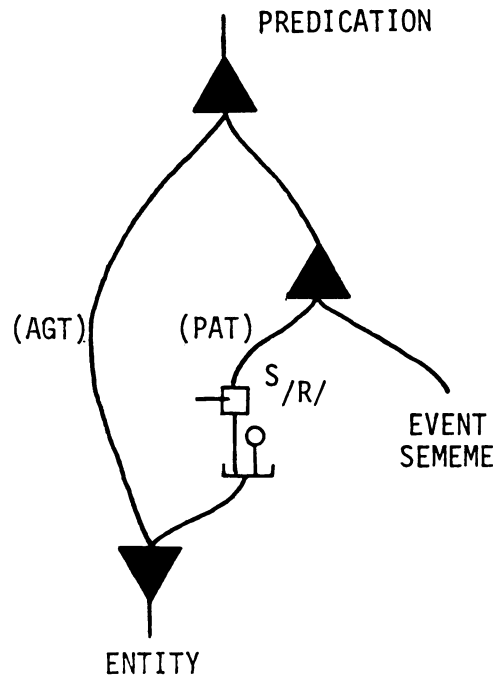


Figure 3.2: A preliminary approach to reflexivity in Malagasy.

occurrence of the sememe which marks coreferentiality, $S/R/$. The details omitted from this preliminary treatment are considered in Section 3.3.

At this point it is necessary to briefly discuss aspects of Malagasy verb structure which are relevant to the ensuing discussion of the lexological and semological description of reflexives.

3.1 An Excursus on Verb Structure

Malagasy makes a distinction between transitive and intransitive verbs, a distinction related in many instances to the presence or absence of a semological patient, as shown in the examples below. Here (15) and (16) illustrate the intransitive use of the roots petraka 'put, place' and foha 'awaken' respectively; (17) and (18) illustrate

the transitive use of the same roots:

- (15) Nipetraka tao ambon' ny latabatra aho.
 sat-down there on the table 1SG
 'I sat down on the table.'
- (16) Mifoha ny ankizy.
 awaken the children
 'The children awaken.'
- (17) Nametraka ny taratasy tao ambon' ny latabatra aho.
 put the letter there on the table 1SG
 'I put the letter on the table.'
- (18) Mamoha ny rainy ny ankizy.
 wake the their-father the children
 'The children wake their father.'

The internal structure of the verbs in these examples is given in (15')-(18').²

- (15') n-i-petraka 'sat-down, stayed, resided'
 TENSE-TRANSITIVITY-ROOT
 past-intransitive-petraka
- (16') m-i-foha 'awaken'
 TENSE-TRANSITIVITY-ROOT
 present-intransitive-foha
- (17') n-aN-petraka 'put, place'
 TENSE-TRANSITIVITY-ROOT
 past-transitive-petraka
- (18') m-aN-foha 'wake (someone)'
 TENSE-TRANSITIVITY-ROOT
 present-transitive-foha

There are many verbs in Malagasy which do not occur in transitive/intransitive doublets, however. For example, there is no *manjery corresponding to mijery 'look-at'; this latter verb is formally an "intransitive" verb despite the fact that in (19), ny gazety 'the newspaper' is the semological patient and the lexological object.

- (19) Nijery ny gazety ve ianao?
 looked-at the newspaper Q 2SG
 'Did you look at the newspaper?'

As indicated in (19'), this type of verb can nonetheless be analyzed as occurring with the intransitive affix, notwithstanding its otherwise transitive characteristics.

- (19') n-i-jery 'looked at'
 TENSE-TRANSITIVITY-ROOT
 past-intransitive-jery

Other verbs occur only with the transitive affix, there being no corresponding intransitive forms. Such a verb is mamono 'kill'; the form *mivono is not used. Cf. (20) and (20') below:

- (20) Hamono voalavo betsaka ity saka ity.
 will-kill rat many this cat this
 'This cat will kill many rats.'

- (20') h-aN-vono 'will kill'
 TENSE-TRANSITIVITY-ROOT
 future-transitive-vono

Note that verbs with the transitive affix need not be transitive in their semological behavior; a case in point is the verb mandeha 'go,' which is formally analyzed as m-aN-leha.

The last type of verb discussed in this section is a type for which the transitive form is a syntactic verb but for which the intransitive form has the syntactic properties of both verbs and adjectives. Such a doublet is manaja 'respect, esteem, dignify' and mihaja 'respected, esteemed, dignified.' The fact that these two forms are in different syntactic classes is evident from their distribution. In (21), mihaja occurs as an adjective following the

noun, but manaja cannot, as indicated by the unacceptability of (22).

- (21) Niresaka tamin' ny vehivavy mihaja ny olona.
 spoke with the woman respected the people
 'The people spoke with the respected woman.'
- (22) * Niresaka tamin' ny vehivavy manaja ny olona.
 spoke with the woman respect the people

In other situations, however, the syntactic distribution of these forms is the same. Witness (23) and (24), where both forms are inflected for past tense, and (25) and (26), where both are inflected for the imperative:³

- (23) Nihaja i Rabe.
 was-respected Rabe
 'Rabe was respected.'
- (24) Nanaja an' i Rabe ny olona.
 respected Acc Rabe the people
 'The people respected Rabe.'
- (25) Mihajá tena!
 dignify self
 'Act dignified!/Behave yourself!'
- (26) Manajá azy!
 respect her
 'Respect her!'

The form manaja is reasonably analyzed as m-aN-haja and mihaja as m-i-haja, giving them the same TENSE-TRANSITIVITY-ROOT structure as the other verbs discussed in this section.

Figure 3.3 represents a fragment of the lexotactics which indicates how the determination of an affix for transitivity is mediated by the syntax, operating under the partial control of the semology (irrelevant details are omitted). For verbs which are distinctively transitive or intransitive, e.g., petraka, the presence of a patient

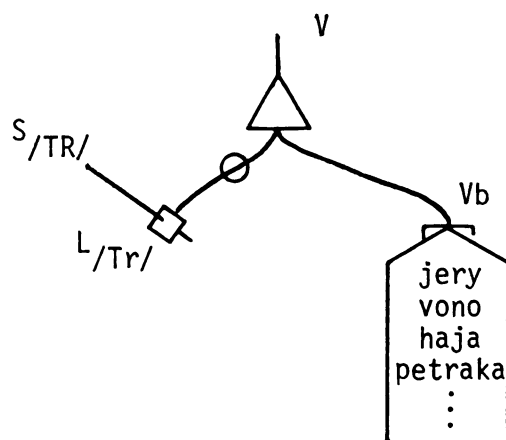


Figure 3.3: A lexotactic fragment.

in the semology results in a token of the sememe of transitivity $S/TR/$, which is then realized as the transitivity lexeme $L/Tr/$ in connection with the verb. For bivalent verbs such as petraka and foha, the absence of a patient precludes a token of $S/TR/$, the zero option on the line leading to $L/Tr/$ is then taken, and the morphology automatically supplies the intransitive affix.

For verbs such as jery 'look at' and vono 'kill,' which are non-distinctively "transitive" or "intransitive," the zero option for transitivity is always taken in the lexotactics (since $S/TR/$ will never be specified) and the morphology again automatically supplies the correct affix for each verb. The exact semological configurations involved are presented in Section 3.3.1.1 below.

This concludes the excursus on verb structure, and the details concerning various types of reflexive expressions can now be considered.

3.2 Further Discussion of Reflexive Expressions in Malagasy

In the reflexive expression (27), the verb manasa is a transitive form based on the root sasa 'wash,' the object position is filled by the reflexive pronoun tena, and the subject position by the noun phrase i Rabe:

- (27) Manasa tena i Rabe.
 wash self Rabe
 'Rabe washes himself.'

Tena, as discussed in Section 3.0, indicates that the semological agent (Rabe) and the patient are coreferential.

There is, however, another method of signaling the reflexive meaning, as (28) illustrates:

- (28) Misasa i Rabe.
 washes Rabe
 'Rabe washes (himself).'

In this construction, the notion of reflexivity is not overtly expressed with a reflexive pronoun; the use of the intransitive verb misasa (also from sasa 'wash') is sufficient to evoke a reflexive meaning.⁴ Furthermore, consultant work has revealed the existence of (29) as an apparent emphasized variant of the "intransitive reflexive" exemplified by (28).

- (29) Misasa tena i Rabe.
 washes self Rabe
 'Rabe washes himself.'

Bearing on this issue, too, is the fact that misasa can occur with other objects. For example, in (30) and (31) the use of the intransitive form misasa rather than the transitive form manasa indicates that

the patients are the agent's own hand and foot. In (32) and (33), however, the patients might be the agent's own body parts or not—it is simply not specified.

- (30) Misasa tongotra i Rabe.
 wash (own) foot Rabe
 'Rabe washes his own foot.'
- (31) Misasa tanana i Rabe.
 wash (own) hand Rabe
 'Rabe washes his own hand.'
- (32) Manasa tongotra i Rabe.
 wash foot Rabe
 'Rabe washes feet.' (his own or someone else's)
- (33) Manasa tanana i Rabe.
 wash hand Rabe
 'Rabe washes hands.' (his own or someone else's)

Furthermore, the objects in (30) and (31) cannot take certain modifiers, among them possessives. Compare (30) and (31) with their unacceptable counterparts (32') and (33'):

- (32') * Misasa ny tongony i Rabe.
 wash the his-foot Rabe
- (33') * Misasa ny tanany i Rabe.
 wash the his-hand Rabe

The fact that it is specifically the construction with the intransitive form which requires the constraint on possessed objects is shown by comparing (32) and (33) with the corresponding sentences with manasa; (34) and (35) are perfectly acceptable, although ambiguous:

- (34) Manasa ny tongony i Rabe.
 wash the his-foot Rabe
 'Rabe washes his foot.' (his own or someone else's)
- (35) Manasa ny tanany i Rabe.
 wash the his-hand Rabe
 'Rabe washes his hand.' (his own or someone else's)

Rajaona (1972: 458-464) includes expressions such as (30) and (31) in what he terms the "possessive voice," thus relating them to utterances such as (36):

- (36) Volo fotsy i Rabe.
 hair white Rabe
 'Rabe has white hair./Rabe is white-haired.'

The approach preferred in the present work is to view the objects in (30) and (31) as further specifications or "constraints" on the application of the root meaning of the verb (in this case sasa) with respect to the agent. The use of the intransitive form misasa with an unpossessed object indicates inalienable possession; further discussion of this matter is given below in Section 3.3.1.1.3.

Note that an utterance such as (37), with a transitive verb but no overt object, is felt to be incomplete, and definitely not interpretable as a reflexive:

- (37) ? Manasa i Rabe.
 wash Rabe

Thus it is not simply the lack of object in (28) which evokes the reflexive meaning.

For other verbs which show a transitive/intransitive distinction parallel to manasa/misasa, the use of the intransitive form does not evince a reflexive sense. Thus for the pair mametraka 'put, leave (something)'/mipetraka 'sit down, stay, reside,' the use of the intransitive mipetraka in (38) does not require a gloss with an implied reflexive as with (28) using misasa. Furthermore, with mipetraka there is no construction to (29); hence (39) is unacceptable.

- (38) Mipetraka ny namako.
 sit-down the my-friend
 'My friend sits down.'
- (39) * Mipetraka tena ny namako.
 sit-down self the my-friend

The fact that the English expression 'My friend is sitting himself down' might also serve as a gloss of (38) does not justify an over-analysis of the Malagasy; each language must, of course, be treated in its own terms. As a general rule, it is proposed that for intransitive verbs which have transitive counterparts, the intransitive form should not be analyzed as reflexive unless that form can also occur with the reflexive pronoun tena, as in (29). This establishes a test for reflexivity with respect to some Malagasy verb types.

Note that verbs which do not occur in transitive/intransitive doublets, as discussed in Section 3.1, are exempt from this test. For example, the verb form mijery 'look at' is morphologically but not semologically intransitive, and a sentence such as (40) does not express a reflexive meaning:

- (40) ? Mijery i Rabe.
 look-at Rabe

This sentence is felt to be odd or incomplete, in much the same way as (37) above. It is felt to be incomplete primarily because it lacks an overtly expressed patient, and cannot be interpreted as reflexive in any event. This verb must take tena to express reflexivity, as in (41); again, the verb form must be mijery despite the occurrence of an object, since the transitive form *manjery is not used.

- (41) Mijery tena i Rabe,
 look-at self Rabe
 'Rabe is looking at himself.'

Similarly, the verb form mamono 'kill' is nondistinctively transitive; it has no intransitive counterpart *mivono. Verbs of this type must also obligatorily occur with tena to signal the reflexive, as in (42). A sentence with no overt object, such as (43), is again of questionable acceptability, and cannot be interpreted as reflexive.

- (42) Namono tena ny lehilahy maditra.
 killed self the man stubborn
 'The stubborn man killed himself.'
- (43) ?Namono ny lehilahy maditra,
 killed the man stubborn

The verb manaja 'respect, esteem' is identical to mamono with respect to the expression of the reflexive meaning, as shown by (44):

- (44) Manaja tena ny olona hendry.
 respect self the people wise
 'The wise people respect themselves.'

The intransitive counterpart mihaja 'dignified, esteemed, respected' functions as either a verb or an adjective, as discussed in Section 3.1. In (45) it occurs with the reflexive pronoun tena in an idiomatic expression glossed as 'behave oneself':

- (45) Mihaja tena ny zaza kely.
 respect self the child small
 'The small child behaves himself.'

As discussed in Section 3.3.1.1.4, this particular expression is not analyzed as a true reflexive, despite the occurrence of tena.

At this point it is appropriate to examine in finer detail the

semological relationships responsible for the types of expressions described thus far.

3.3 The Semological Analysis of Reflexive Expressions in Simple Clauses

3.3.0 Introduction

In this section are given the details of the semological relations underlying the examples discussed above and similar expressions.

The semotactics is responsible for

- (i) the correct positioning in the clause of the agent and patient via realizational links;
- (ii) the evocation of reflexivity in certain constructions either lacking an overt object or having an inalienably possessed object other than the reflexive pronoun tena;
- (iii) the occurrence of the reflexive pronoun tena in certain constructions involving coreferential entities;
- (iv) the distinctive occurrence of the sememe of transitivity $S/TR/$ for certain event sememes; and
- (v) the classification of event sememes according to their collocability with patients and/or the sememe of reflexivity $S/R/$.

The semological relations involved in achieving these aims are complex, and are dealt with in stages. The general descriptive strategy is to present each fragment of the semotactics in its simplest form for preliminary discussion. Certain mechanical simplifications are then made when fragments are combined, and integrated portions of the tactics

are thus also presented in their simplest form. Although portions of a larger network may not match previous illustrations, the judicious use of labels should make the relationships apparent.

As a final note, there is presently no established terminology for classifying Malagasy verbs (or event sememes) with respect to the properties which are relevant to this work. In the following sections, therefore, classes are referred to with Roman numerals, e.g., Class I, Class II, and so on, for convenience.

3.3.1 Reflexive Expressions and Role Relations

3.3.1.1 Reflexive Expressions with $S/PAT/$

3.3.1.1.1 The Semological Relationships of Class I Event Sememes

Event sememes in Class I are those which take a semological patient, but whose "transitivity" is determined solely by the morphology. The sememes $S/JERY/$ 'look at' and $S/VONO/$ 'kill' belong to this class. Figure 3.4 illustrates that the patient of such sememes can, under control of the sememe of reflexivity $S/R/$, be coreferential with the agent.⁵

The agent is characteristically realized in the lexotactic subject position (SPos) and the patient in the object position (OPos). If the sememe of coreferentiality occurs, the left-hand path of the DOWNWARD ORDERED OR is taken, resulting in the assignment of both agent and patient roles to one entity via the UPWARD ASSOCIATIVE AND; this node is labeled (j) to hearken back to Sampson's proposal the account for reflexives with a structure of the form 'j VERBs j.'

When $S/R/$ is present, it is also directly realized as the reflexive pronoun tena, which then occurs as the syntactic object. The

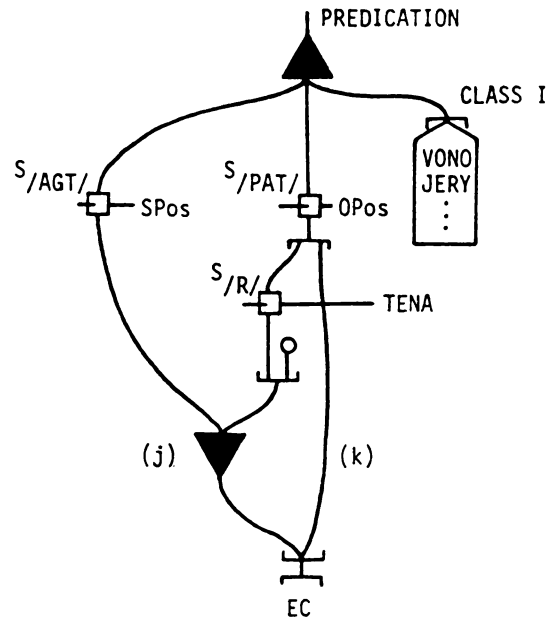


Figure 3.4: The semotactic relations for Class I event sememes.

zero option on the UPWARD ORDERED OR node allows the agent to be realized in the absence of $S/R/$, in which case the right-hand path of the DOWNWARD ORDERED OR allows the occurrence of a patient which is not coreferential with the agent; this line is labeled (k), and accounts for non-reflexive structures of the sort 'j VERBs k.'

An examination of semotactic traces may assist in making the workings of Figure 3.4 clear. The trace for the reflexive sentence (46) is provided in Figure 3.5(a), while the trace for the non-reflexive (47) is given in Figure 3.5(b):

- (46) Mijery tena ny lehilahy.
 look-at self the man
 'The man is looking at himself.'
- (47) Mijery ny lehilahy ny lehilahy.
 look-at the man the man
 'The man is looking at the (other) man.'

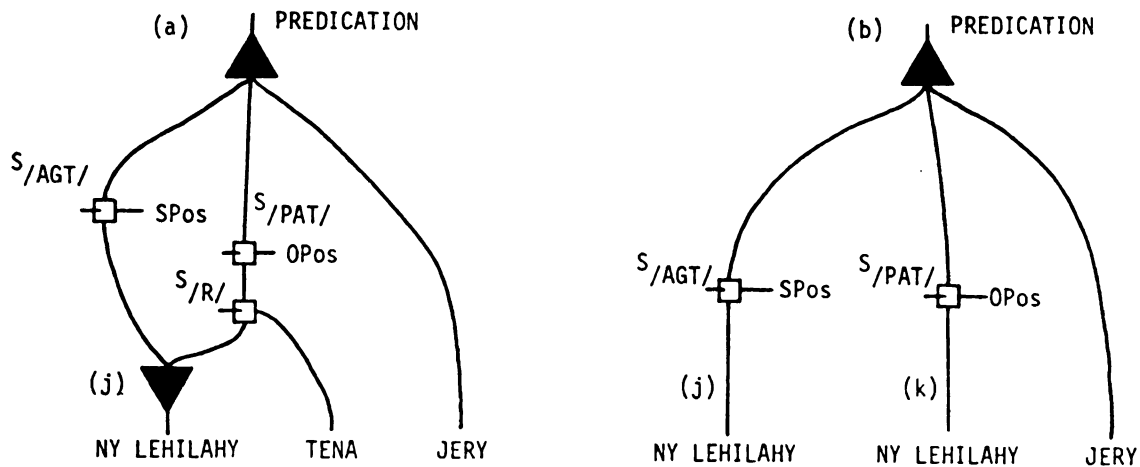


Figure 3.5: The semotactic traces for (46) and (47).

The labels (j) and (k) indicate which lines in Figure 3.4 are used in forming the traces. The corresponding lexotactic traces are not shown, since they would be identical apart from the occurrence of tena as the object for (46) and ny lehilahy for (47).

3.3.1.1.2 The Semological Relationships of Class II Event Sememes

The next class of event sememes contains those sememes which have intransitive/transitive doublets, as with mifoha 'awaken'/mamoha 'wake (someone)' and mipetraka 'sit down, stay, reside'/mametraka 'put, leave (something)'. This type of event sememe can occur with an agent alone, or with an agent and a patient. In the latter case, they must occur with a token of the sememe of transitivity $S/TR/$.

The decision to treat the transitivity marker as a determined sememe rather than a determined lexeme conditioned by the occurrence of an object hinges on two factors. First, in some discourse contexts the transitive form of a verb is used even in the absence of a syntactic object. Although the implied patient is recoverable from the discourse

environment, there is still no lexotactic object to account for the transitive marker. Second, subjects in passive (but not active or circumstantial) clauses would also have to control the occurrence of this marker, since transitivity and voice vary independently. For the range of phenomena considered in this work, it is simpler to treat the distinctive occurrence of the transitivity marker completely within the semology, as is done here.

The occurrence of the intransitive form of Class II sememes does not imply reflexivity, as discussed in Section 3.2; when transitive, however, they can also occur with $S/R/$, with the concomitant occurrence of tena and the assignment of agent and patient roles to the same entity. These relations are shown in Figure 3.6.

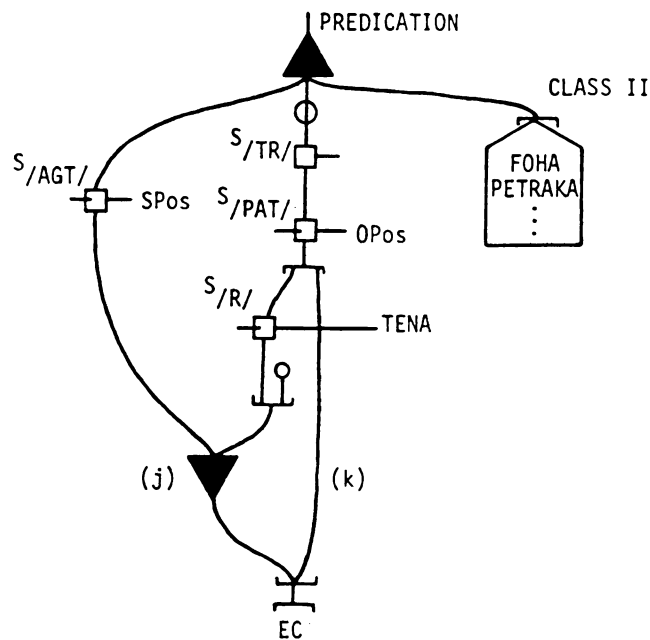


Figure 3.6: The semotactic relations for Class II event sememes.

This figure depicts a class of event sememes which may occur with or without a patient. If a patient is present, a token of $S/TR/$ is automatically produced, resulting in surface forms such as mamoha and mametraka. The tactic relations which concern the patient are the same as those for Class I event sememes.

The semotactic trace for (48) is given in Figure 3.7: in this example, there is no patient, and the morphology automatically specifies the intransitive form of the verb.

- (48) Mifoaha aho.
awaken 1SG
'I awaken.'

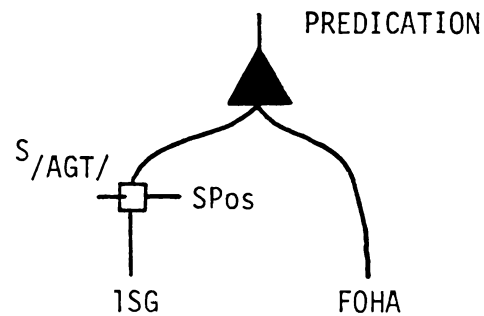


Figure 3.7: The semotactic trace for (48).

The semotactic trace for (49) is given in Figure 3.8(a), and the corresponding lexotactic trace in Figure 3.8(b). The lexotactic trace is provided to illustrate how the sememe $S/TR/$ is related to the lexeme of transitivity $L/Tr/$, as discussed in Section 3.1.

- (49) Mamoha ny lehilahy ny ankizy.
wake the man the children
'The children wake the man.'

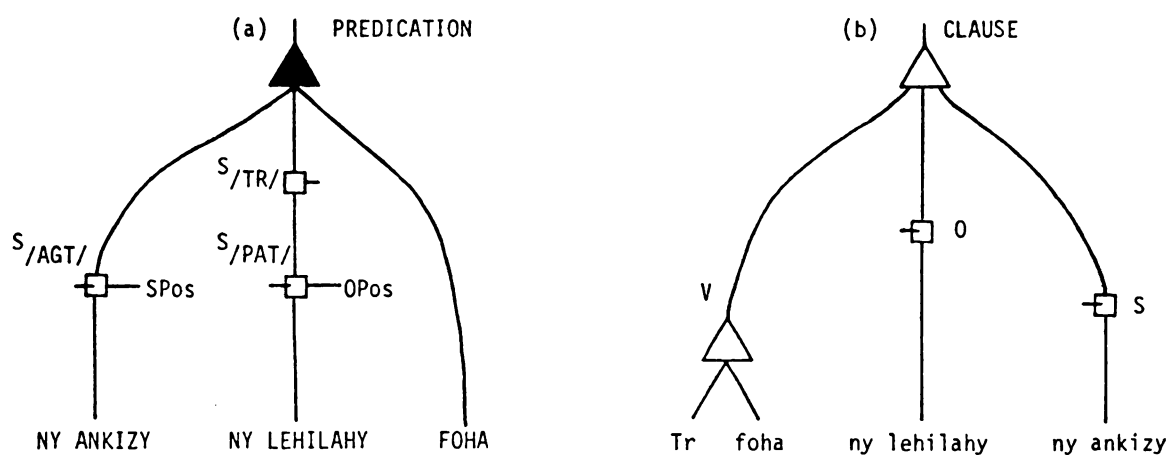


Figure 3.8: The semotactic and lexotactic traces for (49).

Finally, the semotactic trace for (5) is given in Figure 3.9. The relations involved are not complex, and no extended comment is necessary.

- (50) Mamoha tena izahay.
 wake self 3PL EXCL
 'We wake ourselves.'

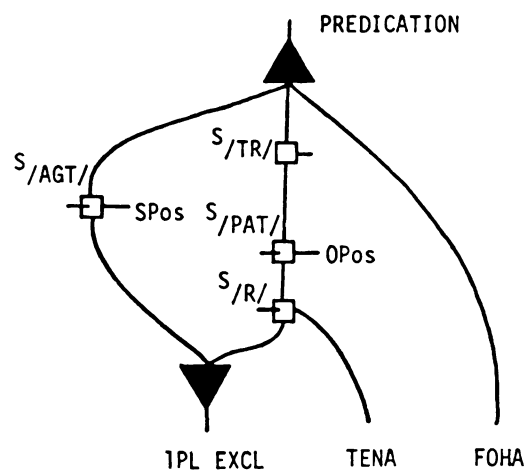


Figure 3.9: The semotactic trace for (59).

3.3.1.1.3 The Semological Relationships of the Class III Event Sememe $S/SASA/$

The semological characteristics of the event sememe $S/SASA/$ 'wash' are examined in this section. This is the sememe upon which is based most of Keenan's discussion of Malagasy reflexives (1976a, 1976b, 1978). This is somewhat unfortunate, for event sememes of this general type seem to be rare, and their semotactic relations are unusual, as is evident below.

Figure 3.10 captures the fact that the event sememe $S/SASA/$ can have an overtly expressed patient, in which case it receives a token

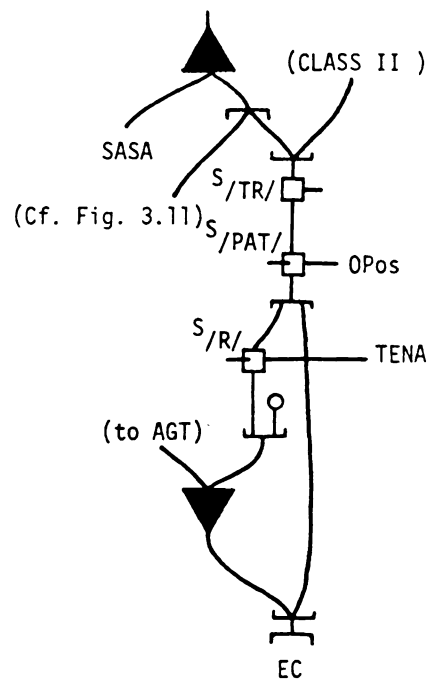


Figure 3.10: Some semotactic relations of the event sememe $S/SASA/$.

of $S/TR/$ and occurs as manasa; with respect to this behavior, it is no different from the Class II sememes discussed in Section 3.3.1.1.2.

Note, however, that there is a line labeled (Cf. Fig. 3.11) in the figure; the semotactic structure that this line leads to are explored next.

As a preliminary to this investigation, it is necessary to review some facts concerning the expression of reflexivity with this sememe. Using tena in the object position of the clause is the normal manner of expressing the reflexive, as in (51):

- (51) Manasa tena i Rabe.
 wash self Rabe
 'Rabe washes himself.'

With ^S/SASA/, however, there is another way of expressing the reflexive meaning, as shown in (52):

- (52) Misasa i Rabe.
 wash Rabe
 'Rabe washes (himself).'

Note that in this second example the use of the intransitive form misasa is sufficient to evoke a reflexive meaning even without tena. In terms of meaning, (51) highlights the entity being washed (Rabe), whereas (52) focuses more on Rabe's activity (washing).

The reflexive pronoun tena can also occur with the intransitive form, as shown in (53):

- (53) Misasa tena i Rabe.

This example is more-or-less equivalent in meaning to (51) and (52), although the consultant for this work tends to perceive (53) as somehow more "emphatic" than the other two. It is the contention here that (53) is an instance of a general pattern involving inalienably possessed

objects with the intransitive form misasa, and is not a "reflexive" in the same way as are (51) and (52).

For example, as discussed in Section 3.2, objects such as tongotra 'foot/feet' and tanana 'hand(s)' can occur with misasa. In (54) and (55) the use of the intransitive verb indicates that the patients are the agent's own hands and feet. In (56) and (57) on the other hand, the patients might be the agent's own or not—it is simply not specified.

- (54) Misasa tongotra i Rabe.
 wash foot Rabe
 'Rabe washes his own feet.'
- (55) Misasa tanana i Rabe.
 wash hand Rabe
 'Rabe washes his own hands.'
- (56) Manasa tongotra i Rabe.
 wash foot Rabe
 'Rabe washes feet.' (his own or someone else's)
- (57) Manasa tanana i Rabe.
 wash hand Rabe
 'Rabe washes hands.' (his own or someone else's)

Figure 3.11 provides the network diagram for the approach proposed here for dealing with these facts. The overall strategy is to relate $S/SASA/$ to two semotactic structures, one of which accounts for the occurrence of $S/TR/$ with a patient (the right-hand path of the topmost DOWNWARD OR), the other of which accounts for those constructions related to a reflexive meaning but requiring the intransitive form of the verb (the left-hand path of the same DOWNWARD OR). It should be noted that although none have been found to date, any event sememes displaying the same semological and lexological patterns as $S/SASA/$ will fall into its semotactic class, Class III.

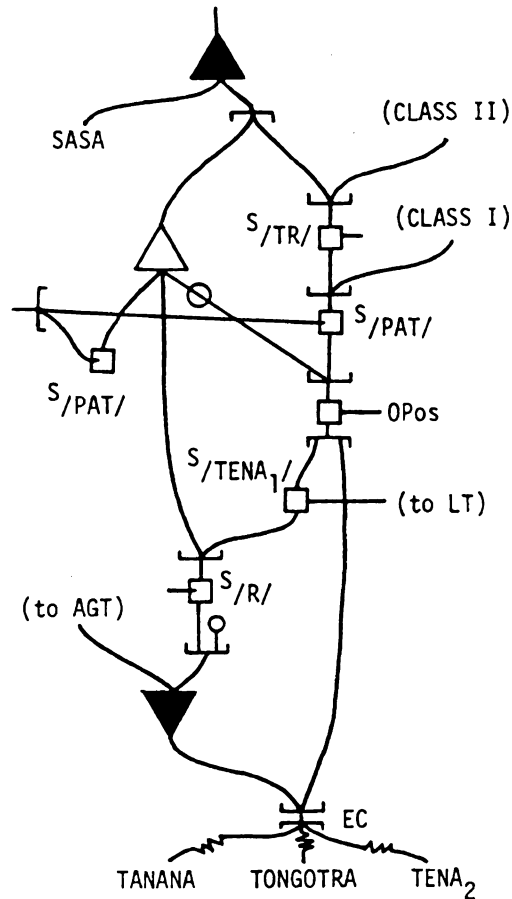


Figure 3.11: Further semotactic relations of $S/SASA/$.

Note that in all cases in which the intransitive form of $S/SASA/$ is used, a reflexive meaning is evoked; furthermore, there is an optional connection to that semotactic structure which accounts for the occurrence of an object. It is claimed that the tena which occurs in (53) is not the same as the homophonous reflexive pronoun tena, but rather the sememe glossed as 'body, trunk.' The translation of (53) below reflects this claim:

- (53) Misasa tena i Rabe.
 wash body Rabe
 'Rabe washes his own body.'

The reflexive pronoun will henceforth be referred to as $S/TENA_1/$ and the sememe meaning 'body, trunk' as $S/TENA_2/$. Thus (53) is not a reflexive expression parallel to (51), but belongs rather in the same series as (54) and (55).

It may be that for some speakers of Malagasy, a sentence such as (53) is perceived as a "true" reflexive, that is, one involving the reflexive pronoun tena rather than the word for body. Certainly there is a great deal of overlap in meaning between sentences (51), (52), (53), (54), and (55). If compelling reasons are found for treating tena in (53) as the reflexive pronoun, the present analysis can be easily modified to account for it.⁶

To illustrate the proposed analysis more completely, traces of selected expressions are presented below. Figure 3.12 illustrates the

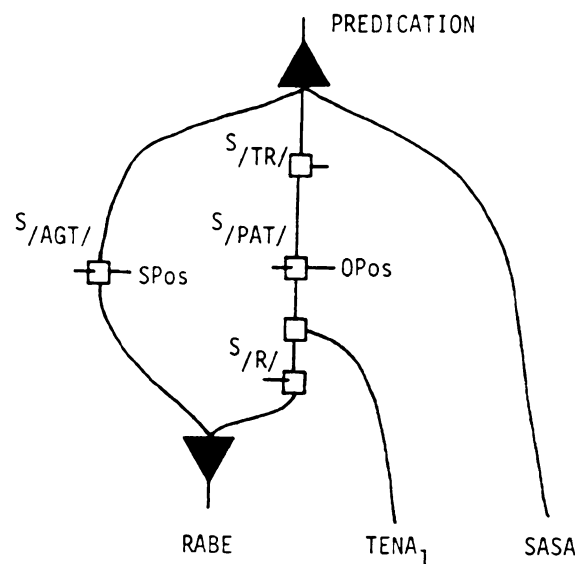


Figure 3.12: The semotactic trace for (51).

semotactic trace for (51). Here Rabe is both agent and patient, $S/TR/$ occurs, and the presence of $S/R/$ accounts for a token of the reflexive

pronoun $S/TENA_1/$.

Figure 3.13 illustrates the trace for (52). Here Rabe is again both agent and patient, but neither $S/TR/$ nor $S/TENA_1/$ occurs. The

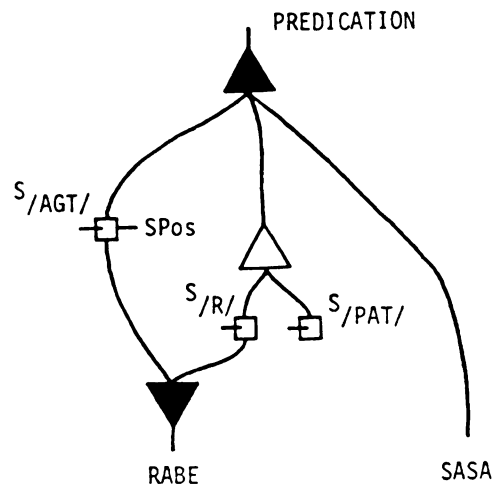


Figure 3.13: The semotactic trace for (52).

sememe $S/R/$ is nonetheless present, despite the fact that it has no overt lexotactic expression.

The treatment of expressions such as (53), (54), and (55) necessitates a minor change in the semotactic relations presented in Figure 3.11. As mentioned above in Section 3.2, utterances of the form in (58) are unacceptable, and the semotactics must account for this.

(58) * Misasa ny tongony i Rabe.
 wash the his-foot Rabe

The simplest tack is to preclude the occurrence of possessives when an entity occurs in the type of construction exemplified by (53), (54), and (55). Figure 3.14 uses the UPWARD AND labeled $POSS_\emptyset$ to accomplish this effect.

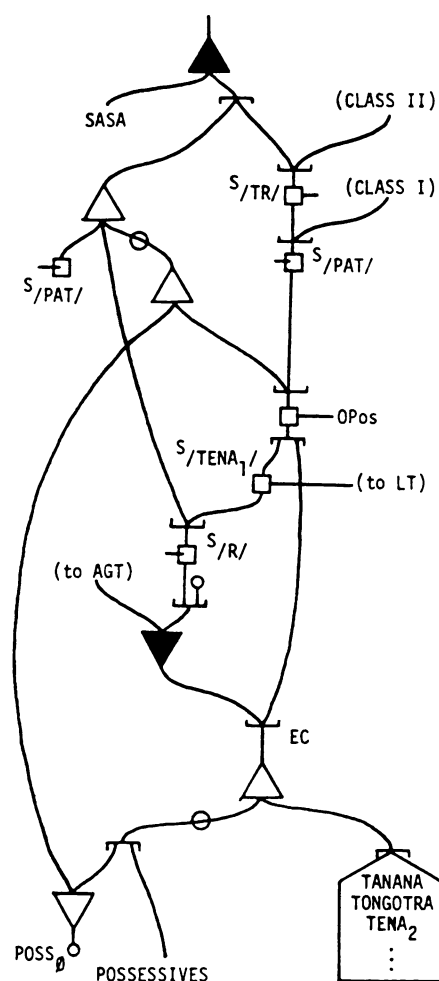


Figure 3.14: A structure to prevent possessives with certain uses of $S/SASA/$.

The use of this structure is illustrated in Figure 3.15 and Figure 3.16, which provide the traces for (53) and (54), respectively. Notice that in the former figure, it is $S/TENA_2/$ rather than $S/TENA_1/$ which is present; in these examples the occurrence of $S/R/$ results in neither an automatic token of the reflexive pronoun nor a determined token of $S/TR/$. This may be contrasted with the trace for (51) in Figure 3.12 above, where the occurrence of $S/R/$ necessitates both $S/TENA_1/$ and $S/TR/$.

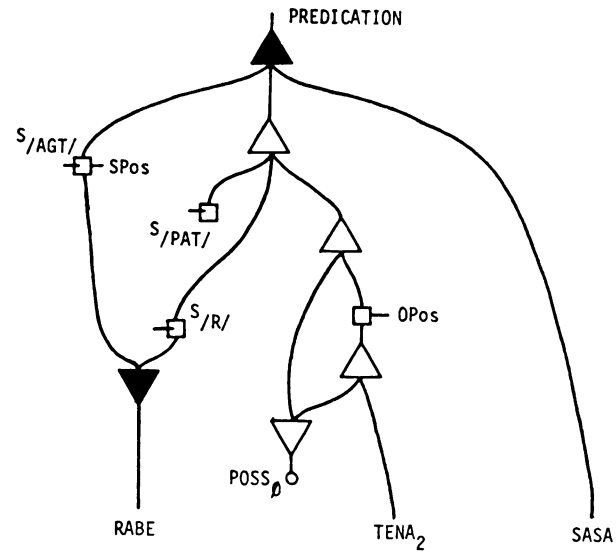


Figure 2.15: The semotactic trace for (53).

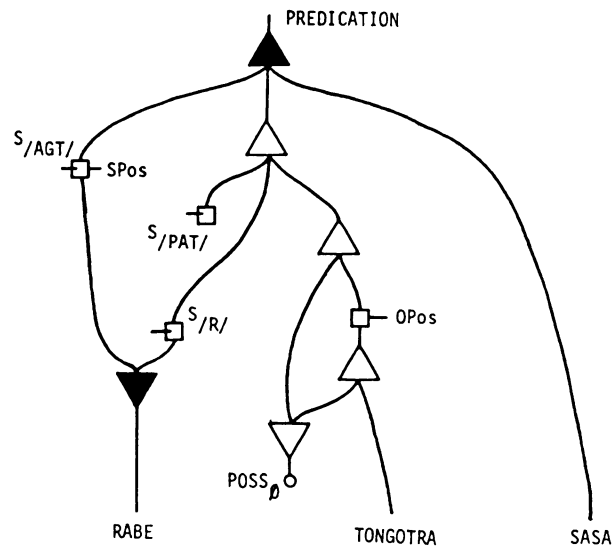


Figure 3.16: The semotactic trace for (54).

3.3.1.1.4 The Semological Relationships of the Class IV Event Sememe $S_{/HAJA/}$

As discussed in Section 3.1, words related to the event sememe $S_{/HAJA/}$ 'dignified, esteemed, respected' have the syntactic character

of both verbs and adjectives.

For example, (59) and (60) indicate that the transitive form manaja can occur with both reflexive and non-reflexive objects:

(59) Manaja ny vehivavy i Rabe.
 respect the woman Rabe
 'Rabe respects the woman.'

(60) Manaja tena i Rabe.
 respect self Rabe
 'Rabe respects himself.'

Sentences (61) and (62) illustrate the adjectival use of the intransitive form mihaja, with (63) and (64) showing the unacceptability of manaja in similar sentences:

(61) Mihaja i Rabe.
 respected Rabe
 'Rabe is respected.'

(62) Vehivavy mihaja i Bozy.
 woman respected Bozy
 'Bozy is a respected woman.'

(63) ? Manaja i Rabe.
 respect Rabe

(64) * Vehivavy manaja i Bozy.
 woman respect Bozy

Finally, (65) shows the verbal use of mihaja (imperative mihajá) with the reflexive pronoun tena; cf. (66) with the imperative form of manaja.

(65) Mihajá tena!
 respected self
 'Behave yourself.'

(66) Manajá tena!
 respect self
 'Respect yourself!'

The semological relationships which account for examples such as (59) and (60) are presented in Figure 3.17. Here the sememe $S_{/HAJA/}$ must occur with a patient, and in so doing is automatically associated with the sememe $S_{/TR/}$. As with event sememes in Classes I, II, and III, the patient may involve reflexivity or not.

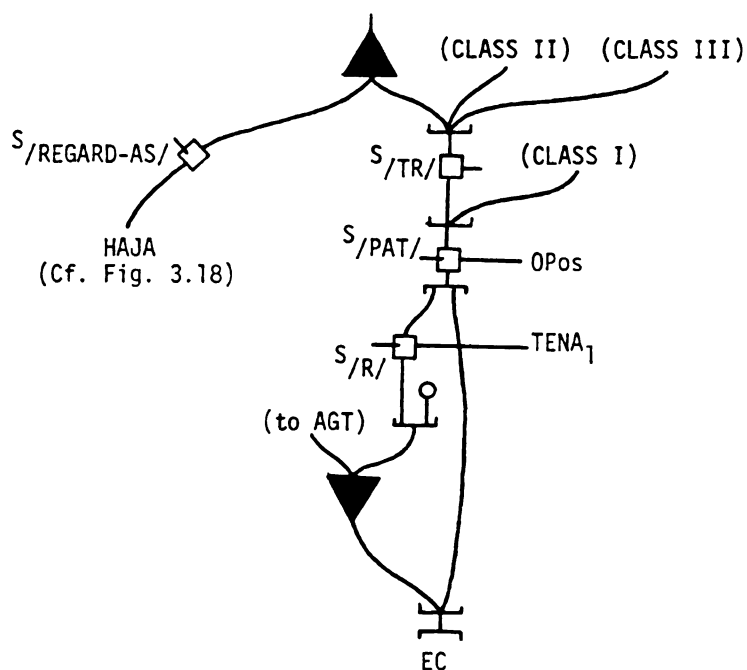


Figure 3.17: Some semotactic relations of $S_{/HAJA/}$.

In this configuration, $S_{/HAJA/}$ obligatorily occurs with a sememe labeled $S_{/REGARD-AS/}$. This allows the whole range of data given in (59)–(66) to be treated with only one sememe, $S_{/HAJA/}$, as opposed to several different sememes with restricted tactic distribution despite largely overlapping meanings.⁷

The network given in Figure 3.18 accounts for data of the type exemplified by (61), (62), and (65). Here the sememe $S_{/HAJA/}$ is related to the semotactic class of Modifiers (MOD), which are related to

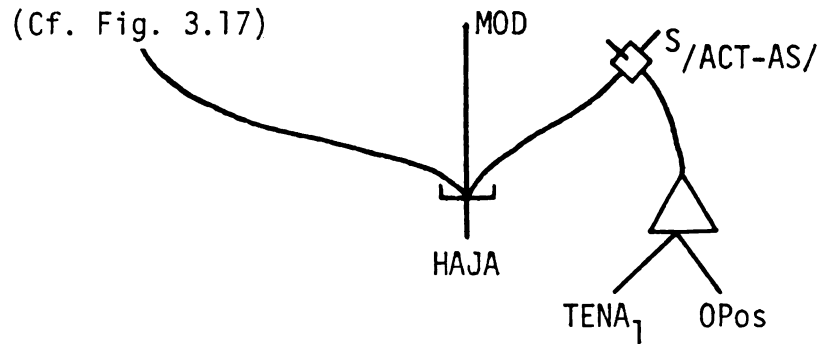


Figure 3.18: Further semotactic relations of $S_{/HAJA/}$.

lexotactic adjectives, as described in Section 2.3.2.1. In addition, $S_{/HAJA/}$ can occur with a sememe glossed $S_{/ACT-AS/}$, which is itself, for this data, realized as $TENA_1$ and a specification that the latter occurs in the lexotactic object position (OPos). The combination of $S_{/HAJA/}$ and $S_{/ACT-AS/}$ relates to a concept that can be glossed as 'behave,' as in (56) above. In this usage, then, the occurrence of tena is not related to the notion of reflexivity at all, and can be considered idiomatic.⁸

In order to recapitulate the information presented in this section, the integration of Figures 3.4, 3.6, 3.14, 3.17, and 3.18 is given in Figure 3.19. This semotactics accounts for all the data discussed so far, and it is now possible to investigate the occurrence of reflexive expressions in circumstantial semotactic constructions.

3.3.1.2 Reflexive Expressions with Circumstantial Roles

As mentioned in Section 3.0, when the reflexive pronoun occurs in an oblique phrase, it is obligatorily possessed, as in (67):

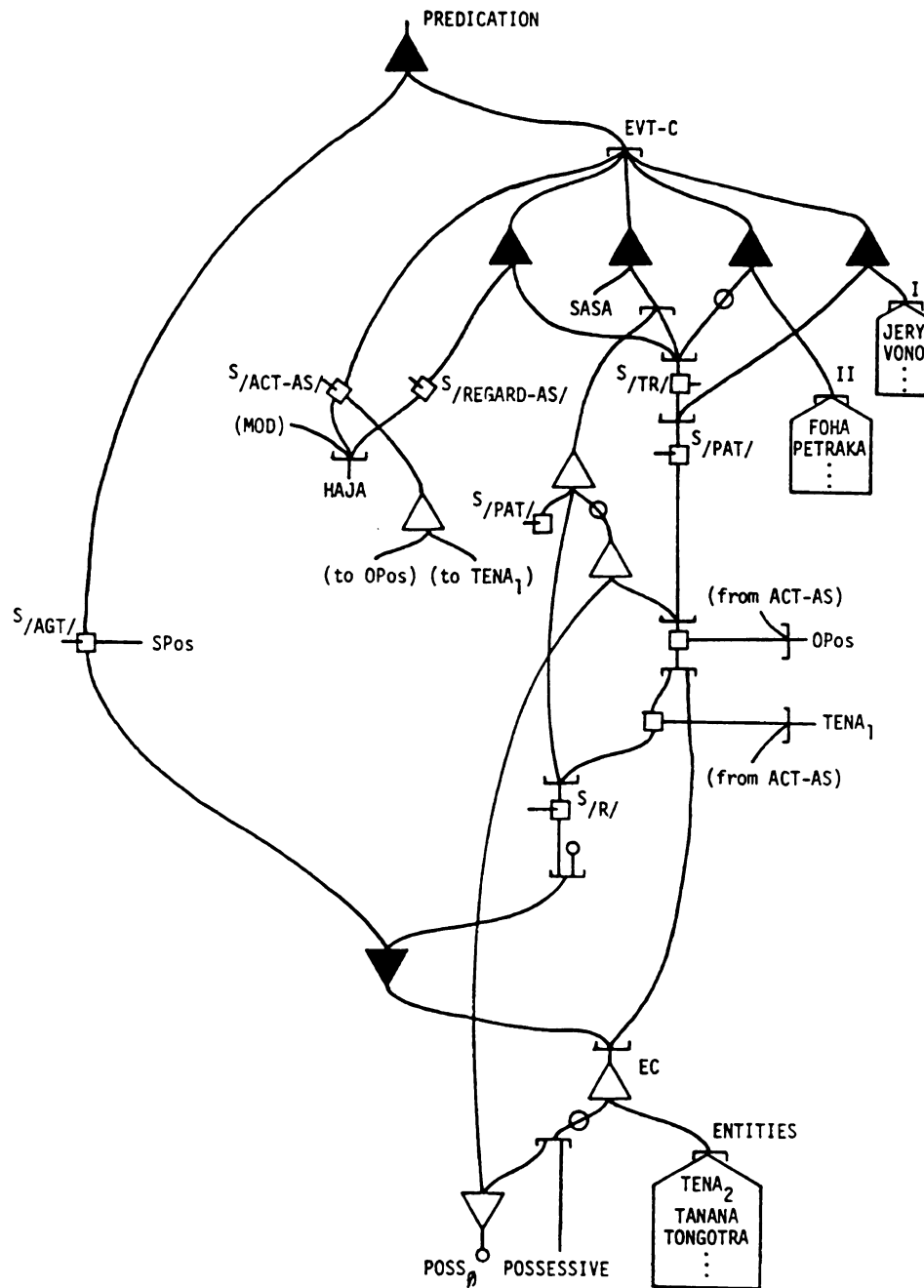


Figure 3.19: The integration of Figures 3.4, 3.6, 3.14, 3.17, and 3.18.

- (67) Nividy ny boky ho an' ny tenany i Rabe.
 bought the book for the his-self Rabe
 'Rabe bought the book for himself.'

In this section the semotactic relations which account for this are



presented. These relations are shown in Figure 3.20; in this figure, the higher tactic relationships involved in associating entities to

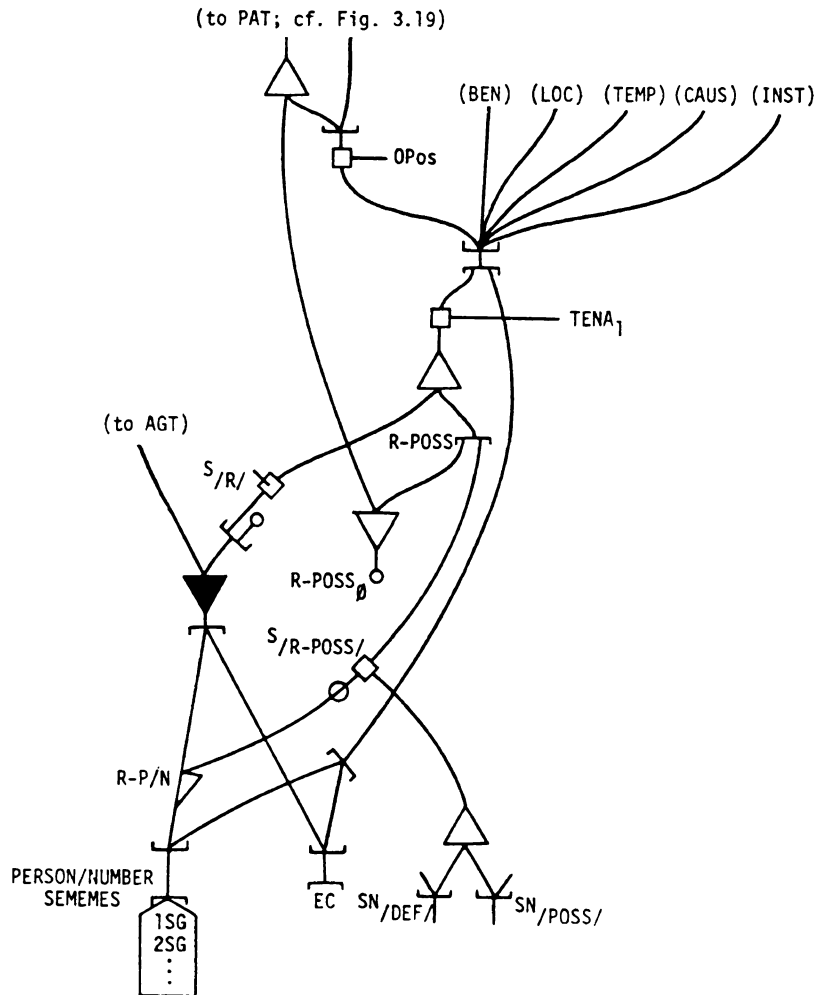


Figure 3.20: Reflexive expressions in circumstantial constructions.

$S/PAT/$ and its accompanying event sememes are omitted in the interest of clarity.⁹

In this figure, the DOWNWARD AND above and to the left of the DIAMOND leading to the lexotactic object position (OPos) ensures that $S/TENA_1/$ is not possessed when it is a patient. This is accomplished via the line labeled $R-POSS_0$ and the DOWNWARD ORDERED OR labeled $R-POSS$.

In the absence of R-POSS₀ the right-hand path of R-POSS is taken, resulting in a determined token of a sememe labeled ^S/R-POSS/, which is itself realized as a combination of the semons ^{SN}/POSS/ and ^{SN}/DEF/. These semons themselves syncretize with the sememes ^S/POSS/ and ^S/DEF/ described in Section 2.2.1.3.

The line leading from the DIAMOND labeled ^S/R-POSS/ to a REDUPLICATION NODE labeled R-P/N is optional, its non-occurrence resulting in a lexotactically-determined token of the third person possessive suffix -ny. Otherwise it reduplicates the person and number of the agent. This accounts for utterances such as (68), in which the possessive ending on tena agrees in person and number with the subject:

- (68) Nividy ny boky ho an' ny tenako aho.
 bought the book for the my-self 1SG
 'I bought the book for myself.'

Note that the entities and person/number sememes related to AGT must be differentiated from those related to other roles; otherwise ^S/R-POSS/ would allow the reduplication of person/number markings for participants other than the agent. Examples (69) and (70) are accounted for by the network in Figure 3.20, but the unacceptable (71), where the possessive ending on tena agrees with the object rather than the subject, is blocked.

- (69) Mitady anao ho an' ny tenako aho.
 look-for 2SG for the my-self 1SG
 'I'm looking for you for myself.'
- (70) Mitady anao ho an' ny tenany i Rabe.
 look-for 2SG for the his-self Rabe
 'Rabe is looking for you for himself.'
- (71) * Mitady anao ho an' ny tenanao i Rabe.
 look-for 2SG for the your-self Rabe
 'Rabe is looking for you for yourself.'

All the circumstantial roles under discussion here appear to follow the same pattern, and an examination of the traces for (67), (68), and (70) suffices to illustrate the general approach to circumstantial reflexive expressions. The relevant traces are given in Figures 3.21 through 3.23.¹⁰

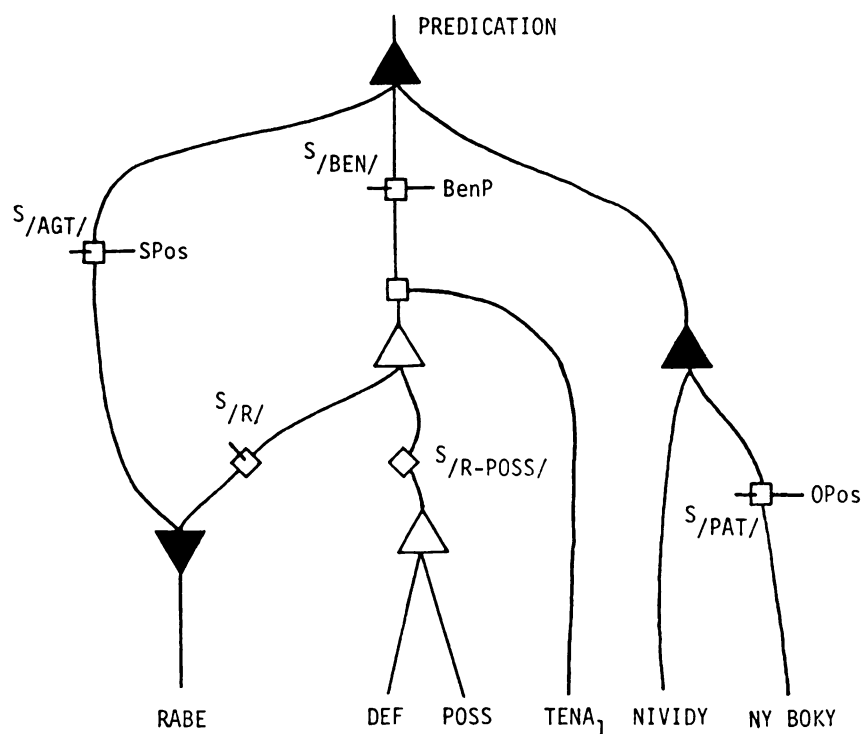


Figure 3.21: The semotactic trace for (67).

Figure 3.24 shows a schematic integration of Figure 3.19 and Figure 3.20; the details of the EVENT CLUSTER (EVT-C) are not given, but the connection of certain event sememe classes to the role sememe $S/PAT/$ and subsequently to the DIAMOND connected to the lexotactic object position (OPos) are shown. In a more detailed version of this figure, there would be a separate line for each circumstantial role, rather than the single line labeled (BEN, LOC, TEMP, CAUSE, INST).

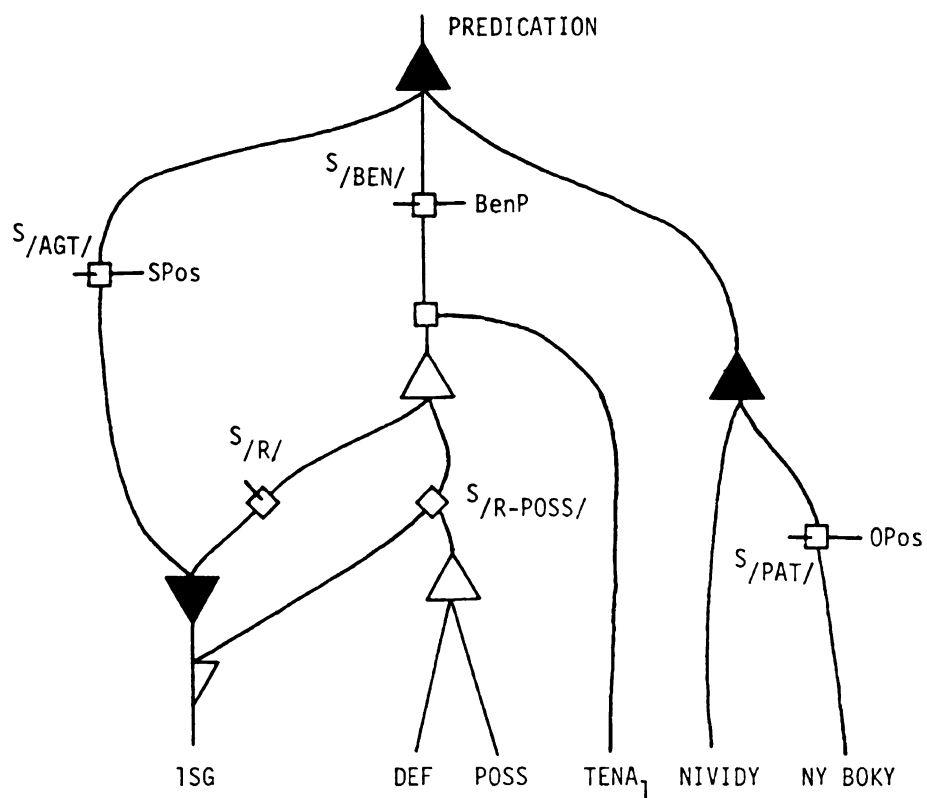


Figure 3.22: The semotactic trace for (68).

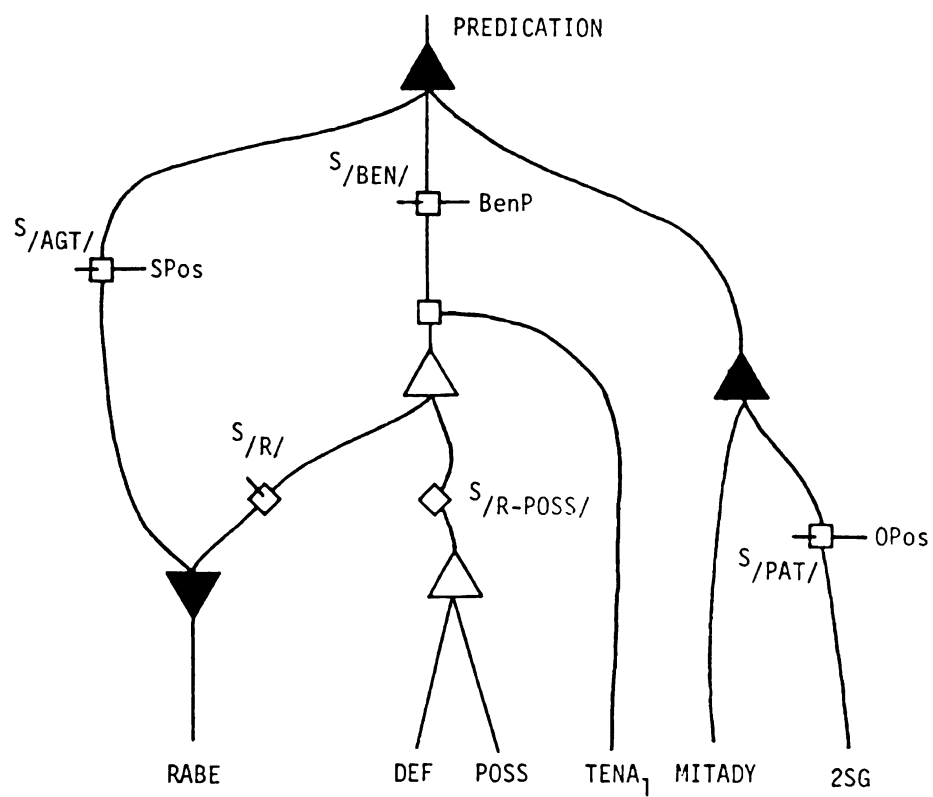


Figure 3.23: The semotactic trace for (70).

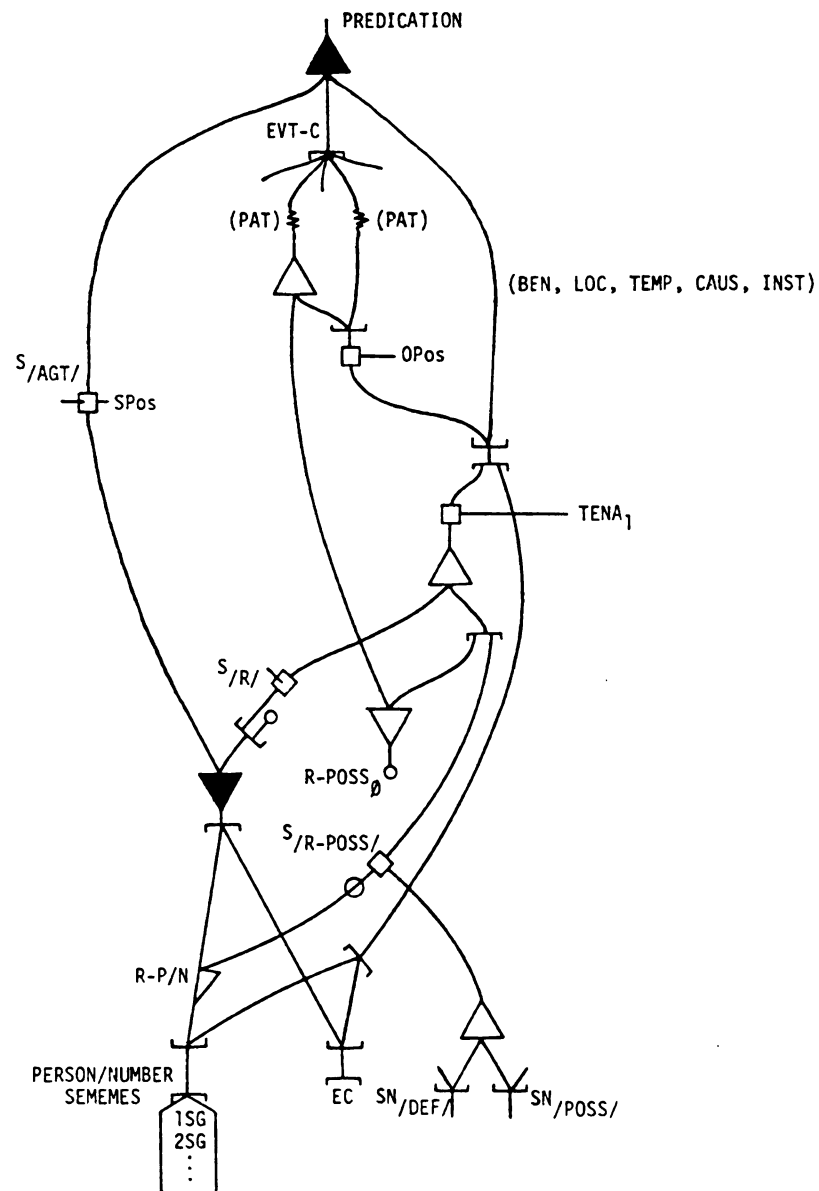


Figure 3.24: A schematic integration of Figure 3.19 and Figure 3.20.

This completes the discussion of reflexive expressions vis-à-vis their occurrence with circumstantial roles. The interaction of reflexives with highlighting phenomena is now taken up.

3.3.2 Reflexive Expressions and Highlighting Phenomena

As discussed in Section 3.3.1, the sememe of reflexivity $S/R/$ can occur with any non-agent role. In addition, as shown in Section 2.4.2, the highlighting sememe of focus $S/FOC/$ can also occur with any non-agent role. The interaction of these two sememes is crucial in Malagasy, since focus on an entity results in its realization as the lexotactic subject, an inadmissible position for reflexives. Thus (72) is grammatical, but its passive counterpart (73)—with focus on the patient—is not:

- (72) Namono tena i Rajaona.
 killed self Rajaona
 'Rajaona killed himself.'

- (73) * Novonoinan' i Rajaona tena.
 killed-PASS Rajaona self

Similarly, (74) is acceptable, but its circumstantial version with focus on the beneficiary, (75), is not:

- (74) Nividy ny boky ho an' ny tenany ny vehivavy.
 bought the book for the her-self the woman
 'The woman bought the book for herself.'

- (75) * Nividianan' ny vehivavy ny boky tena.
 bought-CIRC the woman the book self

Note that it is not the case that $S/R/$ and $S/FOC/$ can never occur in the same predication; (76) is a clear counterexample to this hypothesis:

The semological roles INST, LOC, and TEMP exhibit the same relationships with respect to their occurrence with $S_{/FOC/}$ and $S_{/TH/}$ and are for that reason treated together in the figure. The relations for PAT, BEN, and CAUS are somewhat different and are treated below.

In the presence of $S_{/R/}$ an entity can still occur with $S_{/TH/}$ even though it cannot occur with $S_{/FOC/}$; this accounts for the acceptability of sentences such as (77), with an active verb, but the unacceptability of (78), with a passive verb. The trace for (77) is given in Figure 3.26.

(77) Anilan' ny tenany no mametraka ny taratasy i Rajaona.
 next-to the his-self put-ACT the letter Rajaona
 'It's next to himself that Rajaona is putting the letter.'

(78) * Ny tenany no ametrahan' i Rajaona ny taratasy.
 the his-self put-CIRC Rajaona the letter
 'It's next to himself that Rajaona is putting the letter.'

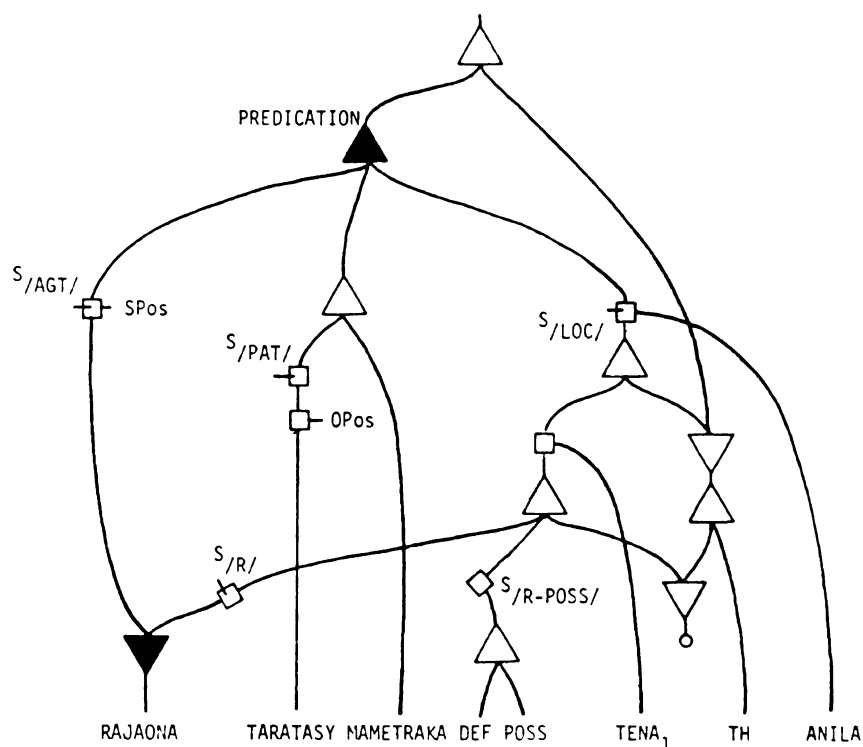


Figure 3.26: The trace for (77).

Figure 3.27 depicts the relationships between $FOC_{\emptyset}$ and the roles PAT, BEN, and CAUS. Again, $S/FOC/$ is not possible with $S/R/$; neither

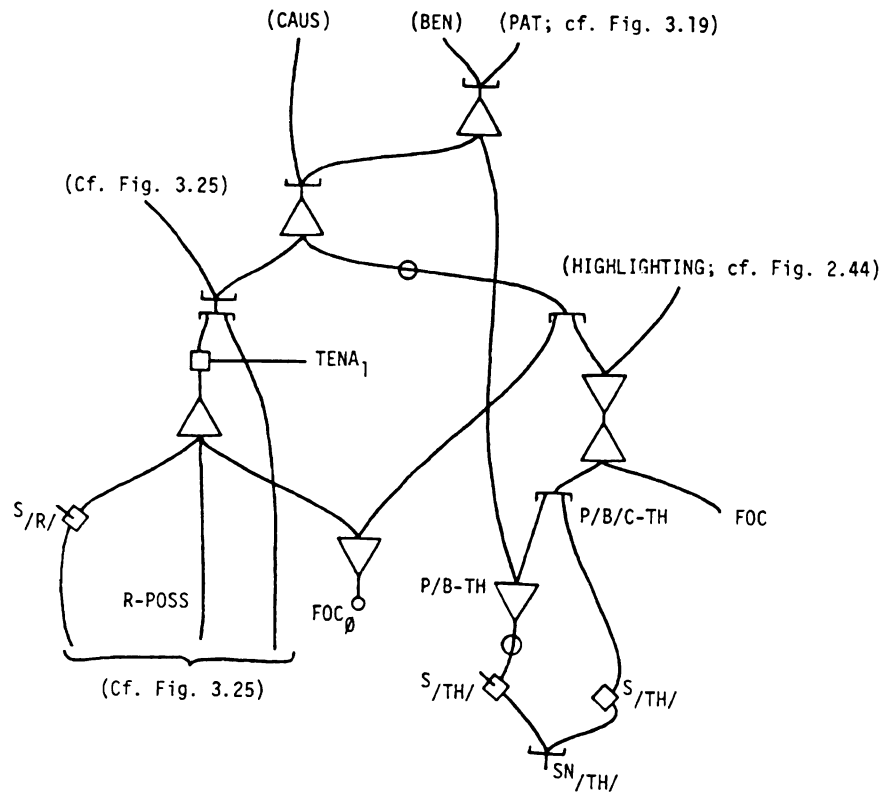


Figure 3.27: The non-occurrence of focus with $S/R/$ in PAT, BEN, and CAUS constructions.

is $S/TH/$, since patients, beneficiaries, and causals can appear in the theme position only in non-active voices. When a non-reflexive entity occurs with focus, the ORDERED OR labeled P/B/C-TH and the UPWARD AND labeled P/B-TH interact as follows: if the focused entity occurs with PAT or BEN, the left-hand line from P/B/C-TH is taken, since P/B-TH will be activated. This will allow $S/TH/$ to be optional, since there is an OPTIONALITY ELEMENT on the line between P/B-TH and $S/TH/$. If the focused entity occurs with CAUS, the right-hand line from P/B/C-TH is taken, and an automatic token of the semon $SN/TH/$ occurs.

Figure 3.28 is the integration of Figure 3.25 and Figure 3.27. Since all of the relationships it depicts have been discussed previously, no further comment is given. Figure 3.29 integrates Figure 3.28 with Figures 2.44, 3.19, and 3.20, thus providing a complete overview of the semological relationships concerning the interaction of highlighting phenomena with reflexive expressions.

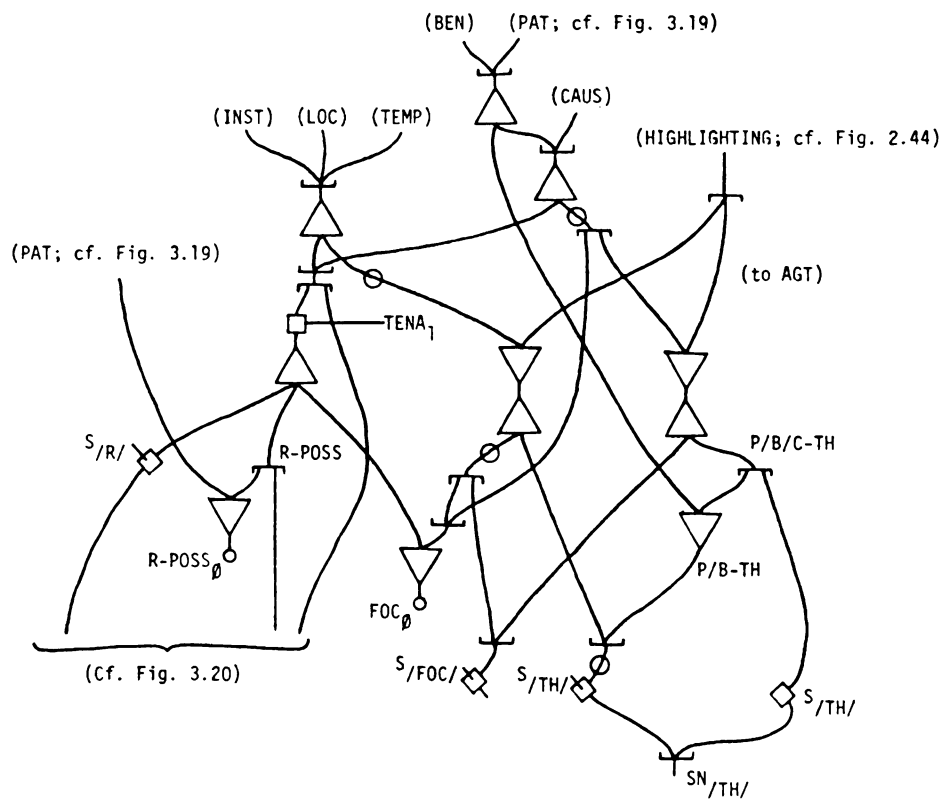


Figure 3.28: The integration of Figures 3.25 and 3.27.

This concludes Chapter 3, and it is now time to summarize the findings of this work, relate these findings to various theoretical issues in linguistics, and suggest avenues for further research. This is done in the next, and final, chapter.

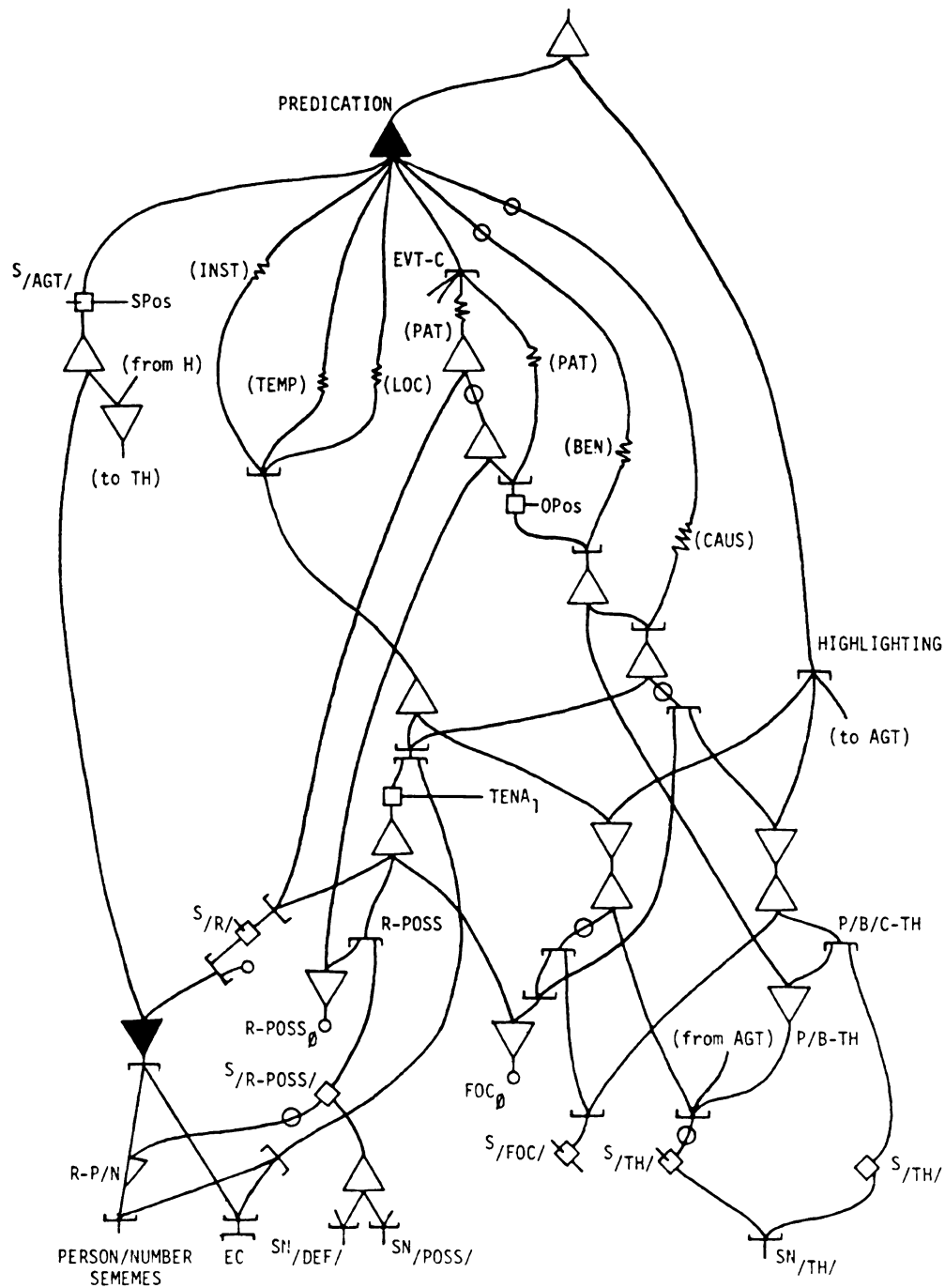


Figure 3.29: A schematic presentation of the semological relationships for the interaction of high-lighting phenomena and reflexive expressions.

NOTES TO CHAPTER 3

1. Parts of this chapter originally appeared in M.E. Bennett 1982.
2. The symbol N represents a morphophoneme which conditions certain phonological alternations among consonants, the details of which are not germane to any issues raised here; for a brief overview, see the Appendix. Also, Randriamasimanana 1981 terms the affix aN (his an(a)) a causative (Chapter 1, passim). Since the scope of his work is quite different from that of this dissertation, no harm is done by using the 'transitive/intransitive' dichotomy, although this itself is not without complications (cf. Hopper and Thompson 1982).
3. The word-final accent on the imperatives is not indicated in the standard orthography. In the non-imperative forms cited here, the accent is penultimate.
4. Cf. Faltz's comments on this type of verb (1977, Chapter 1).
5. In this study, the occurrence of a patient with such sememes is treated as mandatory, since sentences with such semologically transitive sememes lacking an overtly expressed patient are perceived as "incomplete," as mentioned in Section 3.2. While zero realization of the agent seems to be a fairly common discourse phenomenon, more research is needed to determine if and when zero realization of patients occurs.

4 CONCLUDING REMARKS

4.1 Summary

A brief recapitulation of the topics covered in this work is given in this section. Chapter 1 provided a brief overview of Malagasy, including its genetic and typological characteristics. The major aims and limitations of this work were stated to be (1) to present a structural sketch of the Malagasy simple clause which includes basic word order, case marking, and the basics of thematization and voice; (2) to examine the distribution and nature of the reflexive pronoun tena and related expressions; and (3) to account for the co-occurrence restrictions between reflexive expressions, thematization, and voice.

A discussion of the previous scholarship on the language was also presented in Chapter 1, ranging from very early descriptive grammars to the pedagogical and the often linguistically sophisticated and technical works of more recent date.

Finally, the chapter concluded with an introduction to the main points of stratificational theory, which served as the theoretical foundation of the description. In particular, a distinction was made between lexology—corresponding to surface structure for the most part—and semology—a "deeper" stratum of language which deals with linguistic semantics and the relationships of language to the cognitive system.

Chapter 2 presented the structure of the simple clause from both lexological and semological perspectives. The word order possibilities of the main constituents were discussed, as was the internal structure of the main constituents themselves. The clause-initial theme position was discussed, as were the three voices of Malagasy: active, passive,

circumstantial. Voice was analyzed as an expression of semological focus, and in all instances, the focused element appears as the lexotactic subject, with the agent (if not in focus) then realized immediately after the verb in what was termed the Actor Phrase.

Chapter 3 dealt with reflexive expressions and their interaction with the highlighting system. It was remarked that the reflexive pronoun tena can only occur in the lexotactic object position, and that reflexive expressions which occur in oblique constituents are obligatorily possessed. Several classes of event sememes were examined for their co-occurrence restrictions vis-à-vis patients, as well as for their behavior with respect to transitivity marking.

The latter part of the chapter explored the interaction of reflexive expressions and highlighting features. The major finding was that reflexive expressions cannot be focused, since a focused element is realized as the lexotactic subject, an inadmissible position for reflexives.

4.2 Suggestions for Further Research

The major way to expand the analysis provided in this work would be to increase the level of detail at all levels of the description. In particular, Randriamasimanana (1981) deals extensively with reflexive expressions in complex sentences; the present description should be expanded, and modified where necessary, to include his findings.

Of particular interest, too, would be the continued examination of word order within the simple clause itself. As noted in Chapter 2, sources are often at variance with each other on this matter, and the

issue of marked/unmarked word orders has been avoided entirely for lack of consensus. The relation of intonation and relative information value of various complements to variation in word order would undoubtedly prove interesting.

The discourse-controlled aspects of thematization need to be examined further; the theme construction is often used to present contrastive information, and there is a similar structure with the particle dia rather than no which is often described as "emphasizing the truth of the statement." These two structurally similar and (potentially) contrasting patterns remain ill-understood.

As claimed here, voice is a function of semological focus, but within the wider frame of discourse considerations, where are the various voices either obligatory or proscribed? One "grammatical" as opposed to "discourse" environment which necessitates certain voices is the relative clause: the head noun of a relative clause must always serve as the subject of its modifying phrase, so that the verb of such a phrase must be in the passive voice if the head is its semological patient or in the circumstantial voice if it serves in some circumstantial role. In addition, certain verbs always occur in the passive voice; such verbs include tia 'like' and re 'hear.' They, too, must be integrated into the description of the voice system.

4.3 Conclusion

Despite the limited nature of this dissertation, it has achieved several important aims somewhat broader than those mentioned above in Section 4.1. First, it provides information concerning the structure of a language which until recently has been little-studied in the

Anglophone linguistic world. Furthermore, the status of Malagasy as one of the few attested VOS languages makes the dissemination of this information important for typological studies as well as for theory-testing. It is interesting, too, that the discussion in Chapter 3 concerning alienable versus inalienable possession seems to be the first time this distinction has been noticed (or at least mentioned in print) with respect to Malagasy; the distinction itself is, of course, widely known in other Austronesian languages, which makes the analysis presented in this work all the more important for comparative studies.¹

This dissertation also contributes to the growing literature on stratificational theory, and provides a further test of this framework's ability to account for a wide range of linguistic phenomena.² This is particularly important since stratificational theory is a "non-process" theory; that is, movement rules, transformations, and other "change" metaphors (such as advancement and demotion in the Relational Grammar of the Postal and Perlmutter ilk) are specifically disallowed. This differentiates it sharply from other major theoretical approaches. The continued testing and refinement of stratificational theory is thus all the more important when its unique place in the contemporary linguistic arena is considered. It is hoped that this study contributes to that end.

NOTES TO CHAPTER 4

1. The author is particularly indebted to Dr. Barbara Abbott, who suggested (during the defense of this work) that portions of the analysis in Chapter 3 could be viewed in terms of alienable and inalienable possession. It is hoped that this expression of gratitude makes up in part for the lack of an analysis of reflexive expressions in terms of formal logic, which she also suggested at various points.
2. It should be noted that neither the analysis of the highlighting system nor the analysis of reflexives is particularly difficult in itself; it is the interaction of the two which is problematic. The fact that the complex relationships involved can be treated without additions to the basic axiom set of logical relations (AND, OR, etc.) and that competing descriptions of the same data can be evaluated in terms of an empirical, non-subjective simplicity metric should commend stratificational theory to all serious researchers.

APPENDIX

APPENDIX :
SOME REMARKS ON PHONOLOGY

The phonemic system of Malagasy is presented below; the phonemes are represented by their standard orthographic symbol(s). For further details concerning the sound system, see Dez 1980: 6-8 and Garvey 1964b: 3-19.

CONSONANTS

	Labial	Dental	Retroflex	Velar	Glottal
Stops					
vls.	p	t		k	
vd.	b	d		g	
vls. prenasalized	mp	nt		nk	
vd. prenasalized	mb	nd		ng	
Affricates					
vls.		ts	tr		
vd.		j	dr		
vls. prenasalized		nts	ntr		
vd. prenasalized		nj	ndr		
Fricatives					
vls.	f	s			h
vd.	v	z			
Nasals	m	n			
Lateral		l			
Flap		r			

VOWELS

	Front	Central	Back-Rounded
High	i/y*		o
Mid	e		
Low		a	

* Word-final /i/ is written y.

There are a number of morphophonemic alternations involving both consonants and vowels. The only one relevant to forms cited in this work involves the morphophoneme symbolized N. A sample of alternations involving this element is given below:

<u>MORPHOPHONEMIC</u>	/	<u>PHONEMIC</u>
Np, Nf, Nv, Nb		m
Nh, Ns, Nt, Nts, Nk		n
Nl, Nd		nd
Nr		ndr
Nz, Nj		nj

For further details, see Garvey 1964b: 22-28.

REFERENCES

REFERENCES

- Austin, Virginia M.
 1966 Attention, Emphasis, and Focus in Ata Manobo. Hartford Studies in Linguistics 20. Hartford, CT: Hartford Seminary Foundation.
- Bennett, David C.
 1975 Spatial and Temporal Uses of English Prepositions: An Essay in Stratificational Semantics. London: Longman.
- Bennett, Michael Eric
 1980 Sociolinguistics and Stratificational Theory: A Discussion and an Example. Papers in Cognitive-Stratificational Linguistics, ed. by James E. Copeland and Philip W. Davis. (= Rice University Studies, Vol. 66, No. 2), pp. 185-205.
- 1982 Aspects of Reflexive/Reciprocal Expressions in Hopi. The Eighth LACUS Forum 1981, ed. by Waldemar Gutwinski and Grace Jolly. Columbia, SC: Hornbeam Press, pp. 248-258.
- 1983 Aspects of Temporal Clauses in Hopi. The Ninth LACUS Forum 1982, ed. by John Morreall. Columbia, SC: Hornbeam Press, pp. 291-298.
- 1985 The Distribution of Tense Markers in the Malagasy Simple Clause. The Eleventh LACUS Forum 1984, ed. by Robert A. Hall, Jr. Columbia, SC: Hornbeam Press, pp. 150-157.
- Blansitt, Edward L., Jr.
 1978 The Grammatically Conditioned Linearity of Semantic Processes. Forum Linguisticum 2.231-245.
- Blum, Riitta Välimaa
 1981 The Communicative Function of Word Order in Finnish Simple Clauses with Two-Place Predicates. Unpublished M.A. thesis, Michigan State University.
- Chafe, Wallace L.
 1970 Meaning and the Structure of Language. Chicago: University of Chicago Press.
- Christie, William M., Jr.
 1977 A Stratificational View of Linguistic Change. Edward Sapir Monograph Series in Language, Culture, and Cognition 4. Lake Bluff, IL: Jupiter Press.

1978 Atemporal Logic, Temporal Logic, and Natural Language. *Forum Linguisticum* 2.247-253.

1981 On the Consistency of Temporal Logic. *Forum Linguisticum* 6.69-78.

Coleman, Douglas Wells

1982 Discourse Functions of the Active-Passive Dichotomy in English. Unpublished Ph.D. dissertation, University of Florida.

Copeland, James E.

1983 Linguistic Creativity and the Langue/Parole Distinction. *The Ninth LACUS Forum 1982*, ed. by John Morreall. Columbia SC: Hornbeam Press, pp. 159-168.

1984 Texture and Cohesion: Some Complementarities in Systemic and Stratificational Linguistics. *The Tenth LACUS Forum 1983*, ed. by Alan Manning, Pierre Martin, and Kim McCalla. Columbia, SC: Hornbeam Press, pp. 85-95.

1985 On the Cognitive Status of the Initial AND Node in Potential and in Nonce Discourse. *The Eleventh LACUS Forum 1984*, ed. by Robert A. Hall, Jr. Columbia, SC: Hornbeam Press, pp. 229-242.

Copeland, James E. and Philip W. Davis

1980 A Stratificational Approach to Discourse and Other Matters. *The Sixth LACUS Forum 1979*, ed. by William C. McCormack and Herbert J. Izzo. Columbia, SC: Hornbeam Press, pp. 225-263.

1981 An Integrated View of Discourse. *The Seventh LACUS Forum 1980*, ed. by James E. Copeland and Philip W. Davis. Columbia, SC: Hornbeam Press, pp. 122-137.

Dahl, Otto Chr.

1951 *Malgache et Maanjan: Une Comparaison Linguistique*. Oslo: Egede-Instituttet.

Davis, Philip W. and James E. Copeland

1980 Knowledge, Consciousness, and Language: Some Possible Sources of Discourse Phenomena. *Papers in Cognitive-Stratificational Linguistics*, ed. by James E. Copeland and Philip W. Davis. (= *Rice University Studies*, Vol. 66, No. 2), pp. 101-124.

Dez, Jacques

1980 *Structures de la Langue Malgache: Eléments de Grammaire à l'Usage des Francophones*. Paris: Publications Orientalistes de France.

- Dik, Simon C.
1978 Functional Grammar. New York: North Holland Publishing Company.
- Domenichini-Ramiaramanana, Bakoly
1977 Le Malgache: Essai de Description Sommaire. Paris: SELAF. (Langues et Civilisations de l'Asie du Sud-Est, de l'Océan Indien et de la Réunion 1.)
- Dyen, Isidore
1971 Malagasy. Current Trends in Linguistics, Volume 8: Linguistics in Oceania, ed. by Thomas A. Sebeok. The Hague: Mouton, pp. 211-239.
- Faltz, Leonard M.
1977 Reflexivization: A Study in Universal Syntax. Unpublished Ph.D. dissertation, University of California, Berkeley.
- Faublée, Jacques
1954 Abrégé de Langue Malgache. Paris: C. Klincksieck.
- Ferrand, Gabriel
1903 Essai de Grammaire Malgache. Paris: Ernest Leroux.
- Fillmore, Charles J.
1968 The Case for Case. Universals in Linguistic Theory, ed. by Emmon Bach and Robert Harms. New York: Holt, Rinehart, and Winston, pp. 1-88.

1977 The Case for Case Reopened. Grammatical Relations, ed. by Peter Cole and Jerrold M. Sadock. (= Syntax and Semantics 9.) New York: Academic Press, pp. 59-82.
- Fischer-Jørgensen, Eli
1975 Stratificational Theory, Chapter 10 of Trends in Phonological Theory. Copenhagen: Akademisk Forlag, pp. 297-319.
- Garvey, Catherine J.
1964a Malagasy Introductory Course. Washington, D.C.: Center for Applied Linguistics.

1964b A Sketch of Malagasy Grammar. Washington, D.C.: Center for Applied Linguistics.
- Gerbinis, Ernest
1949 La Langue Malgache. Paris: Chassany et Cie.
- Gleason, H.A., Jr.
1964 The Organization of Language: A Stratificational View. Georgetown University Round Table 15.75-95.

1968 Contrastive Analysis in Discourse Structure. Georgetown University Round Table 19.39-63.

Herrick, Earl M.

- 1983 On the Nature of the Interfacial Strata. The Tenth LACUS Forum 1982, ed. by Alan Manning, Pierre Martin, and Kim McCalla. Columbia, SC: Hornbeam Press, pp. 96-107.

1984 Sociolinguistic Variation: A Formal Model. University, AL: University of Alabama Press.

Hjelmslev, Louis

- 1961 Prolegomena to a Theory of Language. Francis J. Whitfield, translator. Madison: University of Wisconsin Press.

1970 Language: An Introduction. Francis J. Whitfield, translator. Madison: University of Wisconsin Press.

Hopper, Paul J. and Sandra A. Thompson

- 1982 Introduction. Studies in Transitivity, ed. by Paul J. Hopper and Sandra A. Thompson. (= Syntax and Semantics 15.) New York: Academic Press, pp. 1-5.

Ikegami, Yoshihiko

- 1970 The Semological Structure of the English Verbs of Motion: A Stratificational Approach. Tokyo: Sanseido.

Johannesson, Nils-Lennart

- 1975 On PAR Value. MS.

1976 The English Modal Auxiliaries: A Stratificational Description. (= Stockholm Studies in English 36). Stockholm: Akseil and Wikseil International.

1980 On Fictive Sentence Analysis. Papers in Cognitive-Stratificational Linguistics, ed. by James E. Copeland and Philip W. Davis. (= Rice University Studies, Vol. 66, No. 2), pp. 75-101.

Julien, Gustave

- 1904 Précis Théorique et Pratique de Langue Malgache. Paris: F.R. de Rudeval.

Keenan, Edward L.

- 1976a Remarkable Subjects in Malagasy. Subject and Topic, ed. by Charles N. Li. New York: Academic Press, pp. 247-301.

1976b Towards a Universal Definition of "Subject." Subject and Topic, ed. by Charles N. Li. New York: Academic Press, pp. 303-333.

1978 The Syntax of Subject-Final Languages. Syntactic Typology: Studies in the Phenomenology of Language, ed. by Winfred P. Lehmann. Sussex: The Harvester Press, pp. 267-327.

Keenan, Edward L. and Elinor Ochs

- 1979 *Becoming a Competent Speaker of Malagasy*. Languages and Their Speakers, ed. by Timothy Shopen. Cambridge, MA: Winthrop Publishers, pp. 113-158.

Keenan, Elinor Ochs

- 1976 *The Universality of Conversational Postulates*. Language in Society 5.67-80.

Lamb, Sydney M.

- 1966a *Epilegomena to a Theory of Language*. Romance Philology 19.531-573.
- 1966b *Outline of Stratificational Grammar*. Revised Edition. Washington, D.C.: Georgetown University Press.
- 1971 *The Crooked Path of Progress in Cognitive Linguistics*. Georgetown University Round Table 22.99-123. (Reprinted in Makkai and Lockwood 1973, pp. 12-33.)
- 1983 *On Determining the Number of Strata in Linguistic Structure*. The Ninth LACUS Forum 1982, ed. by John Morreall. Columbia, SC: Hornbeam Press, pp. 189-203.
- in press *Louis Hjelmslev's Position in Genetic and Typological Linguistics*. To appear in *Typological and Genetic Relationships between Languages: A Linguistic Symposium in Memory of Rasmus Rask and Louis Hjelmslev, on the Occasion of the 500th Anniversary of the University of Copenhagen*.

Lockwood, David G.

- 1972 *Introduction to Stratificational Linguistics*. New York: Harcourt Brace Jovanovich.
- 1975 *Quasi-Etymological and 'Natural' Phonology as Two Varieties of the Same Mistake*. The First LACUS Forum 1974, ed. by Adam Makkai and Valerie Becker Makkai. Columbia, SC: Hornbeam Press, pp. 446-457.
- 1978 *Grammatical Conditioning in Stratificational Phonology*. Forum Linguisticum 2.219-230.
- 1980 *On Lexemic and Morphemic Case*. Papers in Cognitive-Stratificational Linguistics, ed. by James E. Copeland and Philip W. Davis. (= Rice University Studies, Vol 66, No. 2), pp. 35-58.
- 1981 *Total Accountability in a Multistratal Theory of Language*. The Seventh LACUS Forum 1980, ed. by James E. Copeland and Philip W. Davis. Columbia, SC: Hornbeam Press, pp. 165-174.

- in press Highlighting in Stratificational-Cognitive Linguistics. Paper presented at the Symposium on Text Semantics and Discourse Semantics, Rice University, February 1984. To appear in the Proceedings, ed. by James E. Copeland.
- MS Manuscript revision of Lockwood 1972.
- n.d. Unpublished class materials.
- Longacre, Robert E.
1976 An Anatomy of Speech Notions. Lisse: The Peter de Ridder Press.
- 1983 The Grammar of Discourse. New York: Plenum Press.
- Makkai, Adam
1971 Degrees of Nonsense, or Transformation, Stratification, and the Contextual Adjustability Principle. Papers from the Seventh Regional Meeting, Chicago Linguistic Society, pp. 479-491.
- Makkai, Adam and David G. Lockwood
1973 Readings in Stratificational Linguistics. University, AL: University of Alabama Press.
- Mallinson, Graham and Barry J. Blake
1981 Language Typology: Cross-Linguistic Studies in Syntax. New York: North Holland Publishing Company.
- Malzac, R.P.
1960 Grammaire Malgache (4^e éd.). Paris: Société d'Éditions Géographiques, Maritimes et Coloniales.
- Marantz, Alec
1984 On the Nature of Grammatical Relations. Cambridge, MA: The MIT Press.
- Moulton, Janice and George M. Robinson
1981 The Organization of Language. London: Cambridge University Press.
- Müller, Ernst-August
1978 Funktionsverbgefüge vom Typ "Give a Smile" und ähnliche Konstruktionen, eine textorientierte Untersuchung im Rahmen eines doppelschichtigen Semantikmodells. (= Kasseler Arbeiten zur Sprache und Literatur 3.) Frankfurt a.M.: Peter Lang.
- 1980 English Idioms, "Funktionsverbgefüge," and Free Constructions: Their Delimitation in Stratificational Grammar. The Sixth LACUS Forum 1979, ed. by William C. McCormack and Herbert J. Izzo. Columbia, SC: Hornbeam Press, pp. 245-254.

- Parker, G.W.
1883 A Concise Grammar of the Malagasy Language. London: Trübner and Company.
- Perlmutter, David M. and Paul M. Postal
1983 Toward a Universal Characterization of Passivization. *Studies in Relational Grammar 1*, ed. by David M. Perlmutter. Chicago: University of Chicago Press, pp. 3-29.
- Pope, Roger Wayne
1975 Active and Passive Voice in English and Russian: A Contrastive Analysis. Unpublished M.A. thesis, University of Florida.
- Pullum, Geoffrey
1977 Word Order Universals and Grammatical Relations. *Grammatical Relations*, ed. by Peter Cole and Jerrold M. Sadock. (= *Syntax and Semantics 8*.) New York: Academic Press, pp. 249-277.
- Rajaona, Siméon
1972 Structure du Malgache: Etude des Formes Prédicatives. Fianarantsoa: Ambozotany.
- Rajemisa-Raolison, Régis
1966 Grammaire Malgache (5^e éd.). Fianarantsoa.
- Randriamasimanana, Charles
1981 A Study of the Causative Constructions of Malagasy. Unpublished Ph.D. dissertation, University of Southern California.
- Reich, Peter A.
1968 Symbols, Relations, and Structural Complexity. *Linguistic Automation Project Report*, Yale University. (Reprinted in Makkai and Lockwood 1973, pp. 92-115.)

1970a Relational Networks. *Canadian Journal of Linguistics* 15,95-110.

1970b The English Auxiliaries: A Relational Network Description. *Canadian Journal of Linguistics* 16,18-50.
- Richardson, J.
1885 A New Malagasy-English Dictionary. Antananarivo: The London Missionary Society.
- Sampson, Geoffrey
1969 Noun Phrase Indexing, Pronouns, and the 'Definite Article.' *Linguistic Automation Project Report*, Yale University.

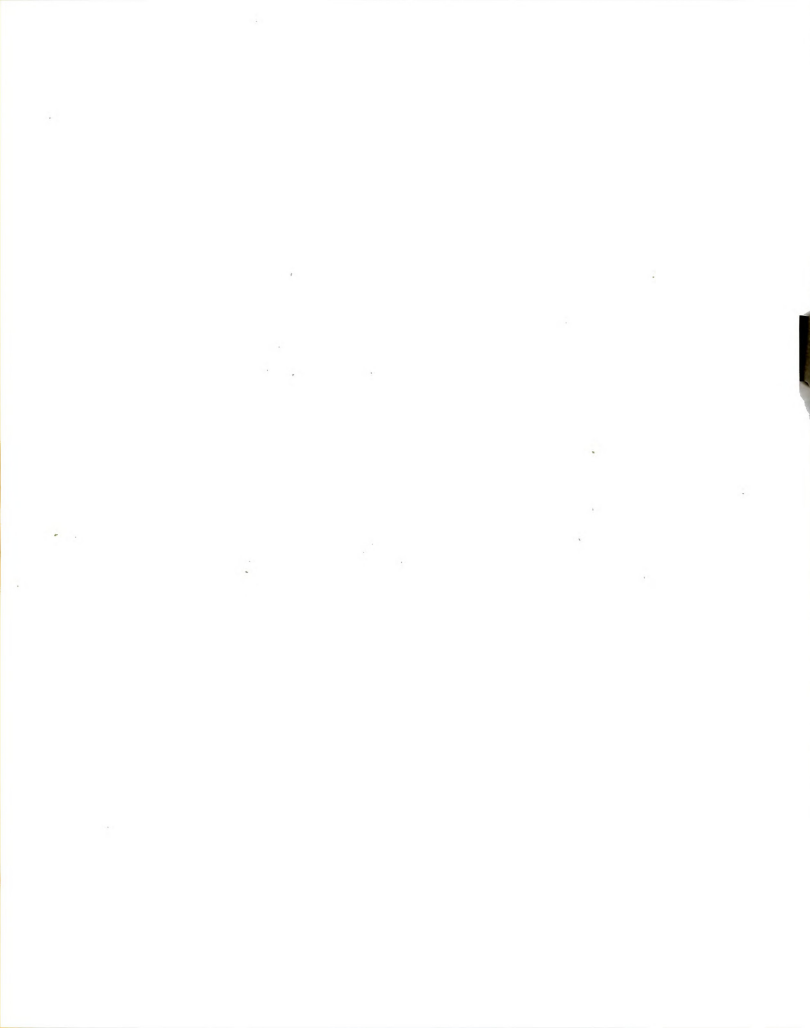
1970 Stratificational Grammar: A Definition and an Example. *Janua Linguarum, Series Minor 88*. The Hague: Mouton.

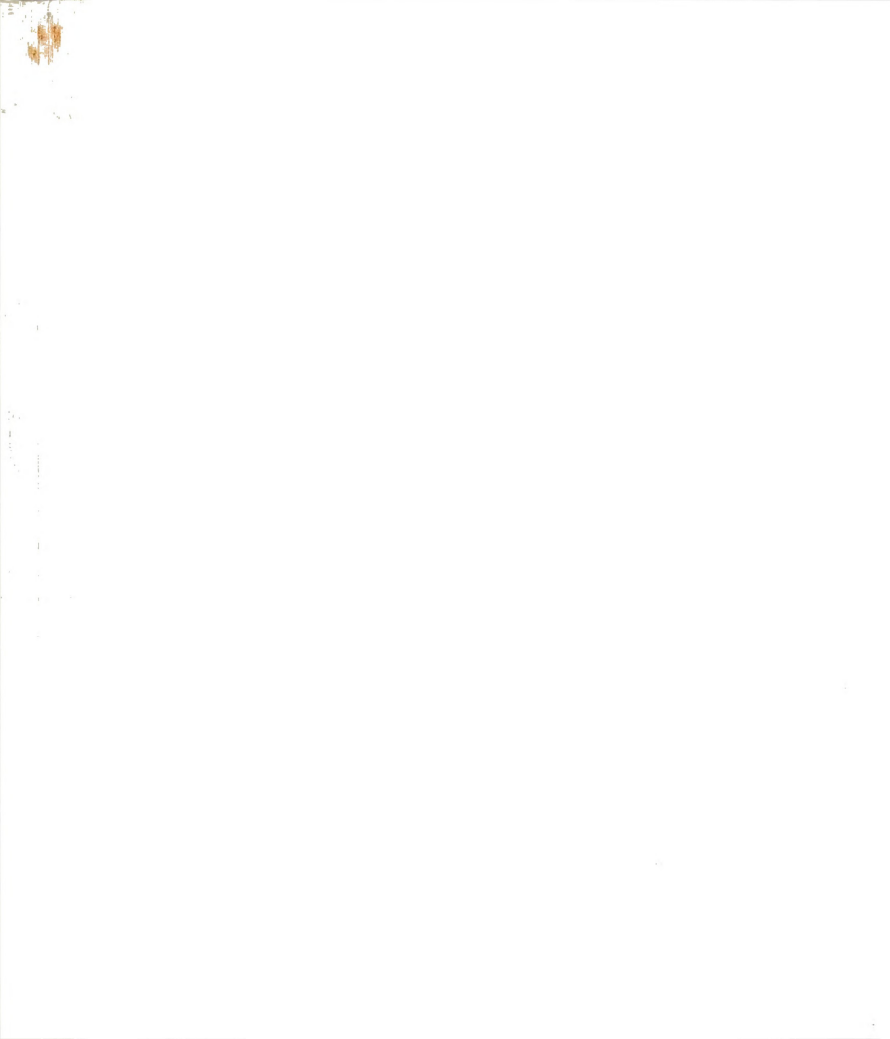


- 1975 The Form of Language. London: Weidenfeld and Nicolson.
- 1980 Relational Grammar: Hjelmslev, Lamb, Reich. Chapter 7 of Schools of Linguistics. Stanford: Stanford University Press, pp. 166-186.
- Schachter, Paul
- 1977 Reference-Related and Role-Related Properties of Subjects. Grammatical Relations, ed. by Peter Cole and Jerrold M. Sadock. (= Syntax and Semantics 8.) New York: Academic Press, pp. 279-306.
- Schreyer, Rüdiger
- 1980a The Definition of Nodes in Stratificational Grammar. The Sixth LACUS Forum 1979, ed. by William C. McCormack and Herbert J. Izzo. Columbia, SC: Hornbeam Press, pp. 282-291.
- 1980b Nodes and Nets: Explorations in Relational Network Notation. Papers in Cognitive-Stratificational Linguistics, ed. by James E. Copeland and Philip W. Davis. (= Rice University Studies, Vol. 66, No. 2), pp. 163-291.
- 1981 The Linearization of Speech: Some Basic Problems. The Seventh LACUS Forum 1980, ed. by James E. Copeland and Philip W. Davis. Columbia, SC: Hornbeam Press, pp. 153-164.
- The Second Foundation (= Michael Eric Bennett and Elizabeth W. Nall)
- 1979 Titles, Strategies, and Status: A Relational Perspective. The Fifth LACUS Forum 1978, ed. by Wolfgang Wölck and Paul L. Garvin. Columbia, SC: Hornbeam Press, pp. 407-414.
- Stark, Elsie L.
- 1969 Malagasy without Moans: A First Course in the Malagasy Language for English-Speaking Students. Tananarive: Trano Printy Loterana.
- Sullivan, William J.
- 1976 Active and Passive Sentences in English and Polish. Papers in Studies in Contrastive Linguistics (Poznań, Poland) 5.117-152.
- 1977 Raising: A Stratificational Description and Some Meta-theoretical Considerations. Second Annual Metatheory Conference Proceedings, 1977. East Lansing, MI: Department of Linguistics, Michigan State University, pp. 47-92.
- 1978 A Response to 'Nominalization in a Localist Framework' by Rugaleva. Forum Linguisticum 3.73-76.

- 1980 Syntax and Linguistic Semantics in Stratificational Theory. Current Approaches to Syntax, ed. by Edith A. Moravcsik and Jessica R. Wirth. (= Syntax and Semantics 13.) New York: Academic Press, pp. 301-327.
- 1984a Russian Prepositional Phrases of Locus: Locative. The Eleventh LACUS Forum 1983, ed. by Robert A. Hall, Jr. Columbia, SC: Hornbeam Press, pp. 201-214.
- 1986 Russian Prepositional Phrases of Locus: Instrumental. Language Sciences 8.17-35.
- Vijchulata, Boosakorn
 - 1978 The Surface Syntactic Structures of the Simple Clause in Thai: A Stratificational Model with (Deep) Case Hypothesis. Unpublished Ph.D. dissertation, University of Florida.







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