TAGALOG TRANSFORMATIONAL SYNTAX:

A PRELIMINARY STATEMENT

by

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Abstract

This study deals with the description of Tagalog syntax using the techniques of transformational-generative grammar. Specifically, the formulations in this work follow, to a large extent, the statements of Chomsky in his "A Transformational Approach to Syntax." The primary aims of this work are to formulate the basic rules of Tagalog kernel sentences, and to show some of the most common transformations in the language. Further, this thesis seeks to establish a basis for a more detailed study of the transformational syntax of Tagalog, and expects to provide a point of departure for future contrastive analyses of Tagalog and other languages. The author believes that he has provided the teacher of Tagalog with basic material for the teaching of the fundamentals of Tagalog transformational-generative grammar, and the new learner with a ready manual for the easy grasp of the core of Tagalog structures.

The analysis concerns the linguistic intuition of the author as a native speaker of Tagalog. The steps involved in the analysis are as follows: investigation of actual and possible sentences known and

permitted by the intuition of the author, including a large written corpus; formulation of the rules of various kernel sentences, generation of grammatical strings with morphographemic realizations, accompanied by the necessary explanations including tree structures; collating the different kernel rules and forming the base rules of Tagalog kernel sentences; showing some of the most common transformations, with pertinent comments; and concluding with a summary of what was discovered in the investigation, along with recommendations for further study and investigation.

The formulations show the rules for six types of sentences, namely, sentences of the construction verb phrase plus noun phrase; sentences of the copula types, which are adjective or adjectival phrase plus noun phrase, adverb or adverbial phrase plus noun phrase, noun phrase plus noun phrase, pronoun plus noun phrase, and prepositional phrase plus noun phrase. All the kernel sentence rules are brought together in the base rules of Tagalog kernel sentences.

Ten kinds of transformations are shown: pronoun transformation -- declarative and imperative --, negative transformation, yes-no interrogative transfor-

mation, yes-no negative interrogative transformation, pronoun-negative-interrogative transformation, _ay_ inversion transformation, manner adverbial transformation, indirect object transformation, -_in_- passive transformation, and nominalization transformation.

The investigation finds some deep regularities in the language; and it also finds some problems for further study and investigation.

CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
II.	PHRASE STRUCTURE RULES OF THE GRAMMAR . .	17
	Kernel 1 Rules	19
	Kernel 2 Rules	63
	Kernel 3 Rules	75
	Kernel 4 Rules	87
	Copula Kernel Sentence Rules	96
	Base Rules of Tagalog Kernel Sentences	99
III.	TRANSFORMATIONS	103
	Pronoun Transformation -- Declarative and Imperative	107
	Negation Transformation	110
	Yes-No Interrogative Transformation . .	112
	Negative-Interrogative Transformation .	115
	Pronoun-Negative-Interrogative Transformation	117
	Ay Inversion Transformation	119
	-In- Passive Transformation	123
	Manner Adverbial	127
	Indirect Object Transformation	129

CHAPTER PAGE

Nominalization Transformation 131

IV. CONCLUSION 136

A SELECTED BIBLIOGRAPHY 140

APPENDIX 143

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CHAPTER I. INTRODUCTION

Purpose of the Study. The purpose of this study is threefold: (1) to formulate the basic finite rules that operate in the generation of an infinite number of Tagalog sentences, based on observable facts of the language and in line with the intuition of the native speaker; (2) to show a few of the most common transforms; and (3) to construct thereby a basis for a more comprehensive study of Tagalog syntax. Such a grammar may also provide a starting point for future contrastive analyses of the syntax of Tagalog and other languages.

This study is primarily intended for (1) the teacher of Tagalog, and (2) the new learner of the language. It is hoped that the study will provide the teacher with basic material for the teaching of the fundamentals of Tagalog transformational-generative grammar. It is also expected that the new learner will gain from this work a ready grasp of the fundamental structures of Tagalog. Geared to this end, this study is organized in such a way that the user will find it easy to follow the rules step by step. Necessary explications are incorporated to give a full understanding

of the rules as well as the items being discussed.

Scope and Delimitation of the Study. This thesis deals primarily with major, basic, Tagalog syntactic structures, i.e., with the phrase structure rules that generate the strings of the kernel sentences, and then with the most common transformations.

The model for this work is Chomsky's "A Transformational Approach to Syntax."[1] I have also found some guidance in the works of Thomas,[2] Goodman,[3] and Koutsoudas.[4]

I have mapped out a grammar that is supposed to describe the ideal speaker-hearer's intrinsic competence.[5]

[1]Third Texas Conference on Problems of Linguistic Analysis (Austin, Texas, 1962), pp. 124-169.

[2]Owen Thomas, Transformational Grammar and the Teacher of English (New York, 1965).

[3]Ralph Goodman, "A Look at Transformational Grammar," in Norman C. Stageberg, An Introductory English Grammar (New York, 1965), pp. 287-383.

[4]Andreas Koutsoudas, Writing Transformational Grammars: An Introduction (New York, 1966).

[5]Noam Chomsky, Aspects of the Theory of Syntax (Cambridge, Massachusetts, 1965), pp. 3-4.

This is neither an exhaustive nor a final statement of the subject. At best, this thesis, using the techniques of transformational-generative grammar, attempts to look into the deep regularities that underlie Tagalog structures.

Review of Related Studies. There are at present several good descriptions of Tagalog syntax written in the classical or in the structural tradition, but no work has yet been done in line with the theory of transformational-generative grammar developed by Chomsky. I have found only one published article on Tagalog transformational syntax, and it is about ambiguity in Tagalog structures.[6] The article is, however, too limited in scope to be used as a basis for general transformational syntactic description. The present study is a modest attempt at describing Tagalog syntax in accord with transformational-generative theory.

I have decided to use the transformational-generative approach to this study because I believe in the theory's simplicity, explicitness, explanatory

[6]Paul Schachter, "Structural Ambiguity in Tagalog," Language Learning, XI (1961), pp. 135-145.

power, and insightful assertions about language which are consistent with the information available to the speaker-hearer of the language. The formulations in this study are based largely on the Texax Conference model.[7]

Fundamental Principles of Transformational-Generative Grammar. First of all, a language, in Chomsky's term,[8] is a finite or infinite set of sentences, each one of which is finite in length and constructed out of a finite set of elements. In this sense, grammar is a system of finite rules that enumerates an infinite number of possible utterances, and assigns to each generated grammatical sentence its proper structural description. This description incorporates and expresses the facts about the sentence that are available to the speaker-hearer of the language.[9]

[7]See Noam Chomsky, "A Transformational Approach to Syntax," in Third Texas Conference on Problems of Linguistic Analysis (Austin, Texas, 1962) pp. 124-169.

[8]Noam Chomsky, Syntactic Structures (The Hague, 1965), p. 13.

[9]Noam Chomsky, "Introduction," in Paul Roberts, English Syntax (New York, 1964), p. ix.

Transformational grammar is one grammar that meets the requirements set forth above. This grammar, a sentence grammar, deals with the processes underlying the production of sentences, and also with the existing relationship among sentences. The transformationalist sees that the speakers of a language are not operating on a mass of stored corpus, but with a system for generating sentences. To the transformationalist, this system is central, so that he comes to grips with "understanding the deeply buried mechanisms that make language viable."[10]

> ... This theory is based on certain assumptions about the kinds of processes that exist in language and the manner in which they interrelate. In particular, it assumes that fundamental to the interpretation and forming of sentences are certain processes -- called grammatical transformations -- that relate a sentence to a set of underlying sentence-like structures of a particularly simple form. These simple underlying structures ... express all of the grammatical relationships and functions that appear in any sentence. The normal sentences of everyday life are formed, characteristically, by a complex series of transformations underlying structures. Although the underlying structures are finite in number, the rules of transformation can be used in indefinitely many arrangements to form an unending variety of sentence types.[11]

[10]Paul Roberts, English Syntax (New York, 1964), pp. 15-16.

[11]Chomsky, "Introduction", pp. xi-xii.

The components of a transformational grammar are (1) the syntactic component, and (2) the phonological component. The syntactic component consists of the phrase structure level and the transformational structure level. The underlying structures of sentences are stated by the phrase structure rules of the grammar, and this takes place by specifying the syntactic classes, their co-occurrence relations, and the lexicon. The changes in these underlying structures are assigned by the transformational rules of the grammar. The pronunciation of sentences is assigned by the phonological component.[12] This study shows, as examples, some of the major morphophonemic rules in Tagalog.

Sources of Data. This description concerns my own linguistic intuition as a native speaker of the language. The grammar presented here "attempts to characterize in the most neutral possible terms the

[12]Andreas Koutsoudas, Writing Transformational Grammars: An Introduction (New York, 1966), p. 5. See also Francis P. Dinneen, "Noam Chomsky: Transformational Grammar and Linguistic Universals," in F. P. Dinneen, An Introduction to General Linguistics (New York, 1967), pp. 355-399.

knowledge of the language that provides the basis for actual use of language by the speaker-hearer."[13] In transformational grammar, knowledge of the language involves the implicit ability to understand an infinite number of sentences, including those that might not have been spoken or written.

Treatment of Material. It took a great deal of time and effort to test and retest the validity and accuracy of the rules before a tentative formulation such as this one could be reached. The procedure followed was: (1) investigation of a big number of actual and possible Tagalog sentences which my intuition knows and permits, including a large written corpus; (2) formulation of the rules of various kernel sentence types; (3) explanation of these rules; (4) generation of grammatical strings; (5) setting up of structure trees of derivation; (6) exemplifying some kernel sentences represented by the structure trees; (7) collating the different kernel rules to form the basic component of Tagalog kernel sentences; (8) showing some of the most elementary or common transformations, supplying comments

[13] Chomsky, Aspects, p. 8.

whenever it is important to do so; and (9) concluding the study with a statement on what the investigation has revealed.

Explanation of Terms.

Generative Grammar. Generative grammar is a system of rules that in some explicit and well-defined way assigns structural descriptions to sentences. This system of rules can be analyzed into the three major components of a generative grammar: (1) the syntactic component which specifies, for each sentence, a deep structure that determines its phonetic interpretation; (2) the phonological component which determines the phonetic form of a sentence generated by the syntactic rules; and (3) the semantic component which determines the semantic interpretation of a sentence.

The base of a syntactic component is a system of rewriting and expansion rules that generate a highly restricted set of basic strings, each with an associated structural description called a base Phrase-marker. These base Phrase-markers are the elementary units of which deep structures are constituted. Underlying each sentence of the language is a sequence of Phrase-markers, each generated by the base of the syntactic

component. This sequence is the basis of the sentence that it underlies. In addition to its base, the syntactic component of a generative grammar contains a transformational subcomponent. This is concerned with generating a sentence, with surface structure, from its basis. Since the base generates only a restricted set of base Phrase-markers most sentences will have a sequence of such structures as an underlying basis. Among the sentences with single base Phrase-markers as basis is a delimited subset called kernel sentences. These are sentences of a particularly simple sort that involve only obligatory transformational rules in their generation. The transformational rules consist of rules of deletion, rearrangement, adjunction, and so on. Among the transformations are those which form questions, imperatives, etc., when the deep structure so indicates, i.e., when the deep structure represents the corresponding "mental act" in an appropriate notation. The base rules allow for the introduction of new propositions, i.e., there are rewriting rules of the form: A --> ...S..., where S is the initial symbol of the phrase-structure grammar that constitutes

the base; there are no other recursive devices.[14,15]

Generation. Generation is the enumeration of a sequence of formatives as a sentence in the language. Generation does not mean the physical production of sentences. The latter is accomplished by some other instrument -- a man or a machine -- operating with a generative grammar.

Transformation. By transformation is meant the addition, deletion, or change in order or form of the morphemes involved. e.g.: Masipag ang estudyante. ('The student is industrious.') This can be reordered by a simple transformation, i.e., Ang estudyante ay masipag. The rule is:

$$X + Y \Longrightarrow Y + \underline{ay} + X$$

Each transformational rule is marked as either optional or obligatory. The first part of the rule is a structural description (S.D., also called structural analysis or structure index), specifying the class of strings

[14]Chomsky, Aspects, pp. 8-18.

[15]Noam Chomsky, Cartesian Linguistics: A Chapter in the History of Rationalist Thought (New York, 1966), pp. 31-51.

in terms of their analysis by phrase-markers to which the rule applies. For example, a transformational rule may apply to all sentences with transitive phrases. e.g.:

S.D.: V_t + NP_o + NP

S.C. (Structural Change): St_t (transitive verb stem)

+ -<u>in</u>- + n- + NP + NP_o (noun phrase object)

The phonetic representations of the rules are the following:

S.D.: Gumawa nang laruan ang bata. ==⇒

'made' n- + Det_{sg} 'toy' Det_{sg} 'child'

('The child made a toy.')

S.C.: Ginawa nang bata ang laruan.

'made' n- # Det_{sg} 'child' Det_{sg} 'toy'

('The toy was made by the child.')

The rule would then apply to an indefinite number of terminal strings which could be subdivided into four parts traceable one after another to nodes of phrase-markers as specified above.

Often, the structural description contains variable symbols such as X or Y, standing for any strings. For example, if only two or more items are important in the transformation rule, other possibilities may be allowed by positioning an X or a Y. Suppose,

the transformation rule is interested in V_i + NP, the formulation may be X + V_i + NP + Y.

The second part specifies the structural change (S.C.) by means of variable signs like X with subscript numbers or simply numbers referring to the segments specified by the structural description. In the above example, X_3 would refer to whatever is NP in the string. In this study this system is used only in isolated cases.

It is occasionally necessary to state various conditions that must be met in addition to those specified in the structural description. For instance, if a transformation applies to two sentences and a part of the sentence is deleted, the rule specifies that fact by means of a conditioning statement like 'where the NP's are identical,' or, 'where NP is a $Pr_{per_{sg}}$ (personal pronoun singular)'. We cite here a rule from Chomsky:[16]

Passive (Optional)

Structural analysis: NP + Aux + V + NP

Structural change: X_1 + X_2 + X_3 + X_4

$\Longrightarrow$ X_4 + X_2 + be + en + X_3 + by + X_1

[16]Chomsky, Syntactic Structures, p. 112.

The rule may be paraphrased thus: A passive may be formed from any string that matches the structural analysis (1) a noun phrase followed by (2) the auxiliary (i.e., the complex of elements leading to past tense, person marker, modals, and so on) followed by (3) a verb (actually a verb of a certain class must be specified) followed by (4) a second noun phrase. The passive counterpart to each such sentence is formed by switching noun phrases (X_1 - the first segment of the analyzed string - and X_4), by attaching be + en (the past participle formant) to the auxiliary, and by placing by before the last noun phrase.

Bill Past + ∅ see John

may be transformed to the passive string:

John + Past + ∅ + be + en + see + by + Bill

i.e., John was seen by Bill. On the other hand, the phrase structure rules are set up in such a way that the string Bill + Past + go + home will not undergo the passive transformation (i.e., so that home in this string is by derivation not an NP). The product of a transformation is referred to as a transform, and marked Tpassive, Tnom, etc.[17]

[17]See Emmon Bach, An Introduction to Transformational Grammars (New York, 1964), pp. 59-85.

Explicitness. By explicitness is meant the requirement that the theory itself state the relationships between the forms, that by a series of "mechanical" steps the forms of the language may be produced in proper sequence and combination with a minimum of interpretation left to the intelligence of the reader or user of the theory.

Performance and Competence. Actual performance is application of the knowledge of the language by an ideal speaker-listener, in a completely homogeneous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors random or characteristic. To study actual linguistic performance, the interaction of a variety of factors, of which the underlying competence of the speaker-hearer is only one, must be considered. Competence is the speaker-hearer's knowledge of his language, and performance is the actual use of language in concrete situations. Only under this idealization is performance a direct reflection of competence. In actual fact, it obviously could not directly reflect competence.

Kernel Sentence. A sentence that is derived from phrase structure terminal strings by the application of obligatory transformations only and phonological rules is called a kernel sentence. In this way every sentence of the language will be either a kernel sentence or one produced by a combination of obligatory and optional transformations.

Rule. A rule is an instruction to rewrite one string or two strings asanother string.

Phrase Structure Rules (PS Rules). The phrase structure rules are the first set of rules in a grammar, and they specify the syntactic classes and their co-occurrence relations. Phrase structure rules (or PS rules, or P-rules) are simple string replacement rules; i.e., one string replaces another in the sense that one and only one symbol is expanded into a string. The rules must be written in such a way as to permit the automatic assignment of phrase markers (P-markers) to the strings of morphemes derived from these rules.

Phrase Markers (P-markers). The underlying phrase markers (P-markers) are phrase markers assigned by the phrase structure rules (P-rules).

String. A string is any linear sequence of symbols generated by the phrase structure component of the grammar, by the rules of order, by the lexicon, by the transformational rules, and by the morphophonemic rules.

Derivation. A derivation of a given string from a given grammar is a sequence of strings of symbols of which the first string is an initial string and in which every string follows from the preceding one by the application of a rule.

Tree or Tree Structure. A tree or tree structure is a labeled bracketing into a tree-like diagram of constituents of various types showing the most obvious formal property of utterances.

All the definitions given above are borrowed from several authorities and practitioners of transformational-generative grammar. I have also copied from some of them a few symbols I have used in this work. Other symbols have been contrived by me. A vocabulary of symbols is included as appendix for handy reference.

CHAPTER II. PHRASE STRUCTURE RULES OF THE GRAMMAR

The constituent-structure of the kernel sentence of Tagalog is of the general shape: X --> Y + Z.

There are two main types of sentences, as formulated in this study: (1) the verb phrase type, i.e., VP + NP; and (2) the copula types, i.e., Cop + X + NP. There are different kinds of copula structures, and these are: copula plus descriptive plus noun phrase (Cop + D + NP), copula plus noun phrase plus noun phrase (Cop + NP + NP), and copula plus prepositional phrase plus noun phrase (Cop + $Prep_{ph}$ + NP). Cop + D is of two kinds, namely: copula plus adjective (Cop + Adj), and copula plus adverb (Cop + Adv). Cop + NP is also of two kinds: copula plus noun (Cop + N), and copula plus pronoun, personal, singular or plural, and demonstrative, singular or plural (Cop + $Pr_{per_{sg}}$).

Each kernel sentence type is mapped out below in the form of constituent-structure rules. Following the statement of the rules of each kernel sentence type is a discussion of the rules including the generation of strings. After listing all the rules and discussing pertinent points, I will bring together all the rules of the copula kernel sentence types to form the copula

kernel sentence rules, and then I will collate them with the verb kernel sentence rules to constitute the base rules of Tagalog kernel sentences.

I have placed the verb kernel sentence rules first in the order of formulation because this type of sentence is the most typical of Tagalog structures. The copula kernel sentence rules have been conflated into three big rules for reasons of economy of formulation.

Some of the most common transformations, with comments supplied, are shown after the base rules.

KERNEL 1 RULES

(1) $S \rightarrow PP + NP$

(2) $PP \rightarrow VP \quad (Adv)$

(3) $VP \rightarrow \left\{ \begin{matrix} V_t + NP_o \\ V_i \end{matrix} \right\}$

(4) $NP_o \rightarrow n- + NP$

(5) $Adv \rightarrow \left\{ \begin{matrix} Prep_m + NP \quad (Tm) \\ Pla \quad (Tm) \\ Tm \end{matrix} \right\}$

(6) $NP \rightarrow \left\{ \begin{matrix} NP_{sg} \\ NP_{pl} \end{matrix} \right\} \quad (S_1)$

(7) $NP_{sg} \rightarrow \left\{ \begin{matrix} Det_{sg} \left\{ \begin{matrix} N \\ Name \end{matrix} \right\} \\ Prper_{sg} \\ Prpos_{sg} \\ Prdem \end{matrix} \right\}$

(8) $NP_{pl} \rightarrow \left\{ \begin{matrix} Det_{pl} \left\{ \begin{matrix} N \\ Name \\ Prdem \end{matrix} \right\} \\ Prper_{pl} \\ Prpos_{pl} \end{matrix} \right\}$

(9) V_t --> $\left\{ \begin{array}{lll} St_{t_1} & + & \text{-um-} \\ St_{t_2} & + & \text{mag-} \\ St_{t_3} & & \left\{ \begin{array}{l} \text{-um-} \\ \text{mag-} \end{array} \right\} \end{array} \right\}$ As

(10) V_i --> $\left\{ \begin{array}{lll} St_{i_1} & + & \text{-um-} \\ St_{i_2} & + & \text{mag-} \\ St_{i_3} & & \left\{ \begin{array}{l} \text{-um-} \\ \text{mag-} \end{array} \right\} \end{array} \right\}$ As

(11) As --> $\left\{ \begin{array}{l} \text{Com} \\ \text{Actl} \\ \text{Pro} \end{array} \right\}$

To Lexicon

(12) Det_{sg} --> $\left\{ \begin{array}{l} \text{ang} \; / \; \_\_\_\_ \; N \\ \text{si} \; / \; \_\_\_\_ \; \text{Name} \end{array} \right\}$

(13) Det_{pl} --> $\left\{ \begin{array}{l} \text{ang manga} \; / \; \_\_\_\_ \; \left\{ \begin{array}{l} N \\ Pr_{dem} \end{array} \right\} \\ \text{sina} \; / \; \_\_\_\_ \; \text{Name} \end{array} \right\}$

(14) $Prep_m$ --> sa

(15) Pla --> dito 'here', diyan 'there', doon 'there (yonder)'...

(16) Tm --> bukas 'tomorrow', kahapon 'yesterday', wala 'absent'...

(17) $Pr_{per_{sg}}$ --> ako 'I', ikaw 'you', siya 'he/she'.

(18) $Pr_{per_{pl}}$ --> kami 'we - exclusive', tayo 'we - inclusive', sila 'they'.

(19) $Pr_{pos_{sg}}$ --> akin 'mine', iyo 'yours', kaniya 'his/hers'.

(20) $Pr_{pos_{pl}}$ --> amin 'ours', inyo 'yours', kanila 'theirs'.

(21) Pr_{dem} --> ito 'this', iyan 'that', iyon 'that (yonder)'.

(22) St_{t_1} --> pili 'select/choose', hingi 'ask', pitas 'pick'...

(23) St_{t_2} --> bigay 'give', tanim 'plant', diwang 'celebrate'...

(24) St_{i_1} --> tapang 'bravery', alis 'leave', ulan 'rain'...

(25) St_{i_2} --> lingkod 'service/servant', sundalo 'soldier', bus 'bus'...

(26) St_{t_3} --> basa 'read', bilang 'count', sulat 'letter/write'...

(27) St_{i_3} --> iwas 'evade/elude', iyak 'cry', tingala 'look upward'...

(28) N --> { bata 'child', estudyante 'student', lalaki 'man'... / libro 'book', kuwarto 'room', aso 'dog'... / damdamin 'feeling', pagibig 'love', galak 'joy'... }

DISCUSSION

The rules will now be operated to generate some strings which underlie sentences with a basic pattern in which VP (verb phrase) is a V (verb or verbal), and not a Cop (copula) with a predicate. Each rule will be explained in detail as we go along.

Application of the rules is from left to right. Only one symbol, that on the extreme left of the arrow, may be rewritten at a time, and the rewriting goes on until the terminal string is realized. A rewriting rule either makes subsets of the class represented by the symbol or expands the symbol into its elements. For example:

$$NP \longrightarrow \begin{Bmatrix} NP_{sg} \\ NP_{pl} \end{Bmatrix}$$

$$S \longrightarrow PP + NP$$

The rewriting process goes on until all the symbols can no longer be rewritten or expanded, and by then they represent a grammatical string that underlies a kernel sentence.

Steps in Generating Strings

(1) Write S (sentence). Rewrite S as PP (predicate phrase) plus NP (noun phrase). The arrow, an operator,

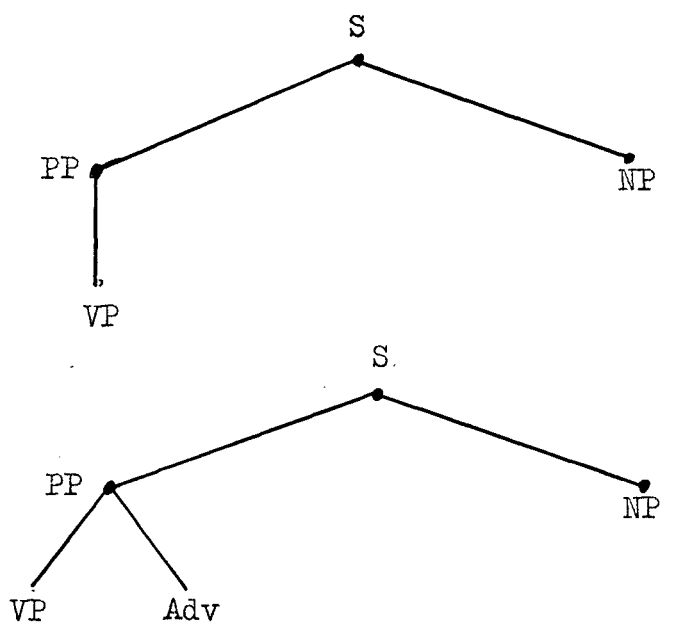
means 'rewrite as', or 'expand to'. The arrow indicates the relation "is a".

(2) PP (predicate phrase) is taken first, it being to the left of the next symbol. PP is rewritten as VP (verb phrase). A VP may also occur with an Adv (adverb or adverbial). Therefore, two strings are now possible:

VP + NP

VP + Adv + NP

These structures are shown in the following branching trees.



(3) The next step is to rewrite VP (verb or verb phrase) as directed by the arrow-operator. VP has two major rewriting possiblities: $V_t + NP_o$ (transitive verb with NP_o (object noun phrase)); and otherwise, V_i (intransitive verb which occurs without an object, though there may be an adverb or adverbial). The strings generated by the rules are the following:

$V_t + NP_o + NP$

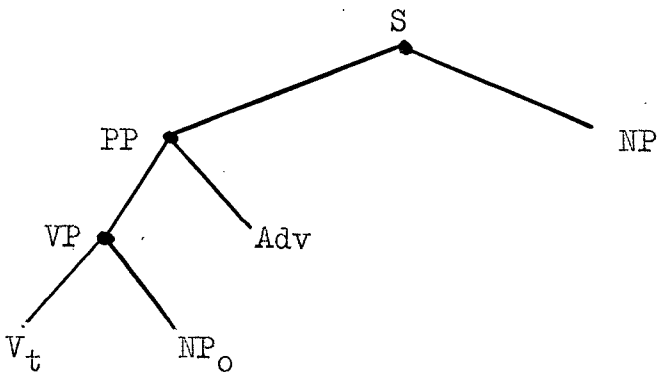
$V_t + NP_o + Adv + NP$

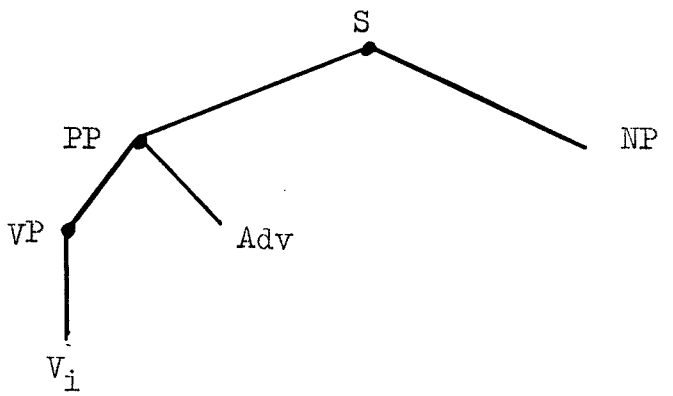
$V_i + NP$

$V_i + Adv + NP$

Adv (adverb or adverbial) will be expalined in detail in the discussion of Rule (5); NP_o will also be developed later.

Some of the structures given above are shown in the following trees.


S
PP
NP
VP
Adv
V_t
NP_o


S
PP
NP
VP
Adv
V_i

There is another class of V_i that is not treated in this formulation. This V_i is a small set of verbs, usually referring to acts of nature, that need no NP (i.e., no subject) to constitute a sentence. For example:

Umuulan. ('It is raining.')

Kumikidlat. ('The lightning is flashing.')

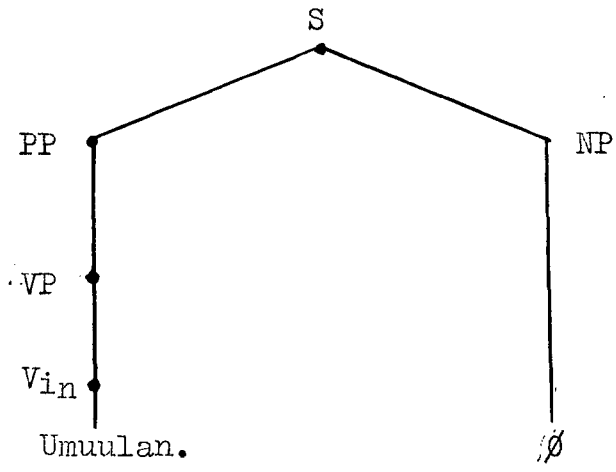
Lumilindol. ('The earth is quaking.')

A rule to generate this type of verb-sentence could well be like the following:

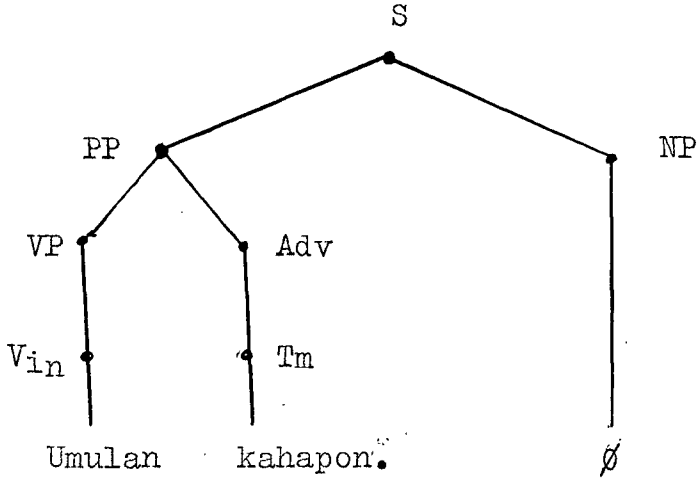
$$S \dashrightarrow PP + \emptyset$$

The V_{i_n} (nature verb intransitive) would be chosen in the environment of (Adv) + $\emptyset$, and V_{i_a} (the ordinary intransitive verb) otherwise. We have not included the rule in the formulation because this kind of structure is peripheral in the language.

The rule may be shown in the following tree structures.



('It is raining.')



'rained' 'yesterday'

('It rained yesterday.')

(4) NP_o (object noun phrase) will be rewritten as n- + NP. The n- is a morpheme-operator that marks the relationship "object", and the morphophonemics will change the sahpe of the determiner. Otherwise the NP part of the NP_o will be developed like the NP in subject position. The grammar thus shows the large general rules of the noun phrase part of the language.

(5) Adv (adverb or adverbial) has two possible rewrites. First, it may be rewritten as $Prep_m$ (preposition marker) plus $\bar{NP}$ (noun phrase). Tm (time adverbial) is optional. This rule generates these strings:

$Prep_m$ + NP

$Prep_m$ + NP + Tm

The deletion of the determiner ang in relation to $Prep_m$ sa will be explained later in the morphophonemic rules.

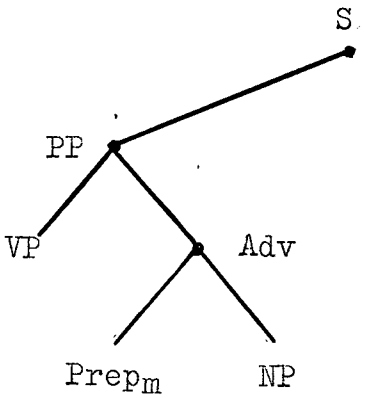
The other rewrite of Adv is Pla (place adverbial), which may or may not occur with an optional element Tm (time adverbial), but Tm may occur alone. These adverbials do not need a $Prep_m$. The rule will generate the following strings:

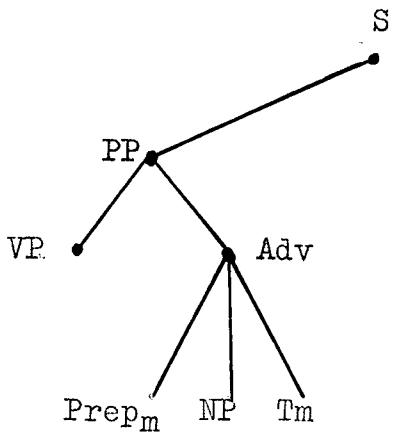
Pla

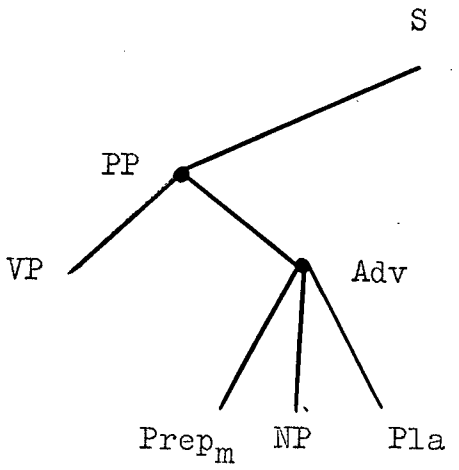
Pla + Tm

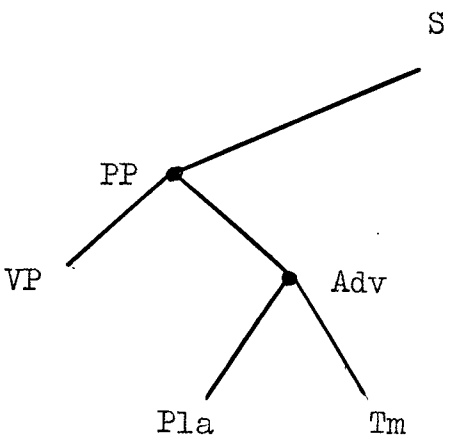
Tm

The strings given in the preceding page are shown in the following trees.






S
PP
VP
Adv
Prep$_m$
NP
Pla


S
PP
VP
Adv
Pla
Tm

(6) NP (noun phrase), a high-level symbol, is the starting node of all branching rules right of the concatenation sign as well as of the NP of the NP_o. NP is rewritten as NP_{sg} (noun phrase singular), or NP_{pl} (noun phrase plural).

(7) NP_{sg} is then expanded to Det_{sg} (determiner singular) plus either of the following: N (noun), or Name. The other possible expansions are $Pr_{per_{sg}}$ (personal pronoun singular), and Pr_{dem} (demonstrative pronoun), which do not take a determiner. Rule (7) will thus produce these possible strings:

Det_{sg} + N

Det_{sg} + Name

$Pr_{per_{sg}}$

$Pr_{pos_{sg}}$

Pr_{dem}

(8) NP_{pl} is rewritten as Det_{pl} (determiner plural) plus any of N, Name, and Pr_{dem}. Another possible rewrite is $Pr_{per_{pl}}$ (personal pronoun plural), without determiner. Rule (8) can thus produce these strings that may comprise NP_{pl}:

Det_{pl} + N

Det_{pl} + Name

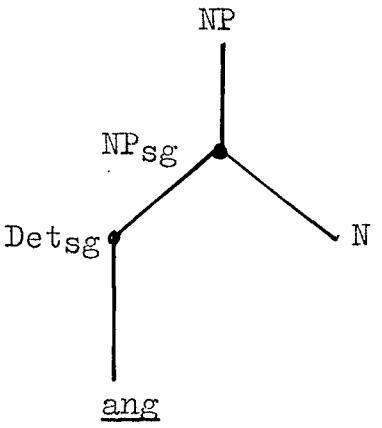
Det_{pl} + Pr_{dem}

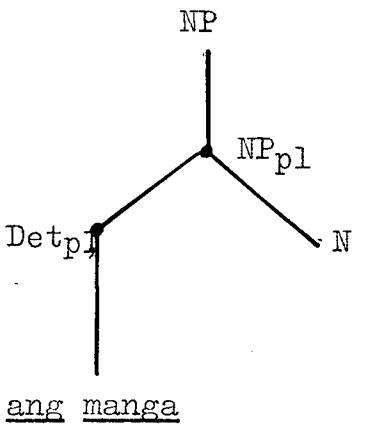
$Pr_{per_{pl}}$

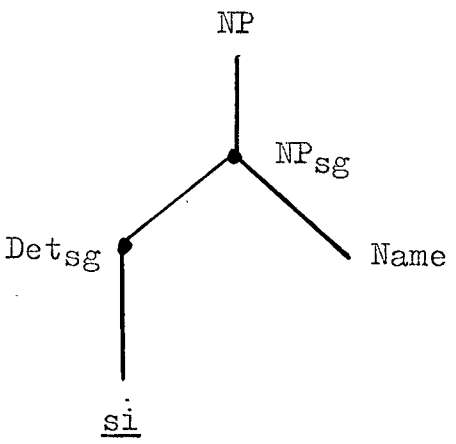
$Pr_{pos_{pl}}$

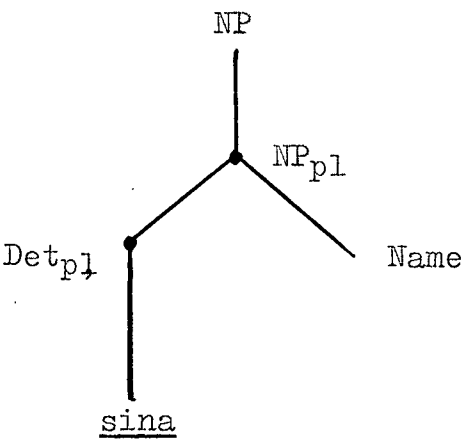
It can be seen from Rules (7) and (8) that Tagalog nouns do not show number. It is the determiner that expresses number, singular or plural. The same is true with Name, although Name takes a different set of markers. The Pr_{dem} is unmarked for singular, but marked for plural by a Det_{pl}. The Pr_{per} has different forms for singular and plural. The correct choice for determiners is shown in Rules (12) and (13).

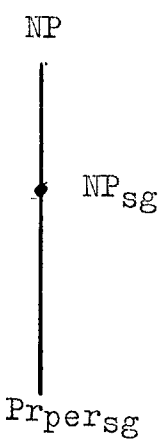
These strings are shown in the following diagrams.

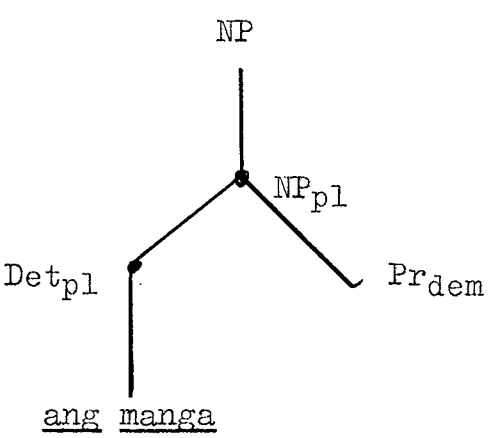





NP
NPsg
Detsg
Name
si


NP
NPpl
Detpl
Name
sina


NP
NPsg
Prpersg


NP
NPpl
Detpl
Prdem
ang manga

The symbol S_1 represents any sentence that can take the place of NP. S_1 is produced by nominalization transformation.

(9) and (10) These two rules have common rewriting properties. They reveal the morphological structure of the verb. A V (verb or verbal) is a combination of a stem and a verb formative and an aspect marker. There are three classes of stems: (1) those that take the formative -um-; (2) those that permit mag- formative; and (3) those that take either -um- or mag-.

V_t (Transitive Verb)

St_{t1} + -um-

pili + -um- --> pumili 'to select/to choose/chose'

hingi + -um- --> humingi 'to ask/asked'

pitas + -um- --> pumitas 'to pick/picked'

St_{t2} + mag-

bigay + mag- --> magbigay 'to give'

tanim + mag- --> magtanim 'to plant'

diwang + mag- --> magdiwang 'to celebrate'

V_i (Intransitive Verb)

St_{i1} + -um-

tapang + -um- --> tumapang 'to be brave/became brave'

alis + -um- --> umalis 'to leave/left'

ulan + -um- --> umulan 'to rain/rained'

St_{i2} + mag-

lingkod + mag- --> maglingkod 'to render service'

sundalo + mag- --> magsundalo 'to perform the function of a soldier'

bus + mag- --> magbus 'to take the bus/ride in a bus'

V_t and V_i (Transitive Verb and Intransitive Verb)

St_{t3} + -um-, or mag-

basa + -um- --> bumasa 'to read/read'

bilang + -um- --> bumilang 'to count/counted'

sulat + -um- --> sumulat 'to write/wrote'

St_{t3} + mag-

basa + mag- --> magbasa 'to read (with frequeney)'

bilang + mag- --> magbilang 'to count (with frequency)'

sulat + mag- --> magsulat 'to write (with frequency)'

St_{i3} + -um-

iwas + -um- --> umiwas 'to evade or elude/evaded or eluded'

iyak + -um- --> umiyak 'to cry/cried'

tingala + -um- --> tumingala 'to look up/looked up'

The morphophonemics of the stem and the formative, together with aspect, will be discussed in a later section.

The formatives -um- and mag- are sometimes merely verbal markers: e.g., sayaw 'dance' (noun), but the addition of -um- or mag- marks "verb". Sometimes the choice for St_3 verbs is merely stylistic; sometimes the choice conveys a different meaning.

The -um- formative marks As (aspect) Com (completed) for St_1 and St_3 verbs, but also frequently carries meaning of internal motion, or "willing". It expresses the intentional putting into action of what the stem denotes. e.g.:

tiwalag + -um-	-->	tumiwalag 'to separate or drop off voluntarily (as member of an organization)'
'separate/remove or drop off (as member of an organization)'		
tiwalag + mag-	-->	magtiwalag 'of the officers or members of an organization, to drop or separate from membership another member without volition on the part of the latter'

To illustrate:

Tumiwalag ang estudyante sa kapisanan.
'dropped off voluntarily' Det_{sg} 'student' $Prep_{m}$ 'society'
('The student resigned as a member of the society.')

Nagtiwalag nang manga kasapi ang patnugutan.
'dropped off' n- + Det_{pl} 'member' Det_{sg} 'directorship'
('The board of directors dropped from the roll some members of the society.')

(a) The affix -<u>um</u>- also expresses impersonal acts, acts of nature, and self-change through time or the intervention of man.

(1) <u>umulan</u> 'to rain/rained'
<u>bumagyo</u> 'to storm/stormed'
<u>humangin</u> 'of the wind, to blow/the wind blew'

(2) <u>tumubo</u> 'to grow/grew'
<u>sumilang</u> 'to shine/shone'
<u>sumibol</u> 'to spring up/sprung up'

(3) <u>pumuti</u> 'to become white'
<u>tumaba</u> 'to become fat'
<u>dumami</u> 'to multiply'

(b) Acts of taking a part from the whole
<u>humiwa</u> 'to cut a slice'

pumitas 'to pick'

humati 'to take half'

(c) The affix -um- sometimes expresses acts of going towards or away from a place.

pumakanan 'to turn to the right'

pumagitna 'to get to the center'

umalis 'to go away'

Mag- expresses putting into motion what the stem denotes, the motion being more external in character, and less intense than -um- verbs in voluntariness. It means to do, perform, or accomplish acts of thinking, feeling, and involves external motion.

magsundalo 'to perform the function of a soldier'

magbus 'to take the bus/ride in a bus'

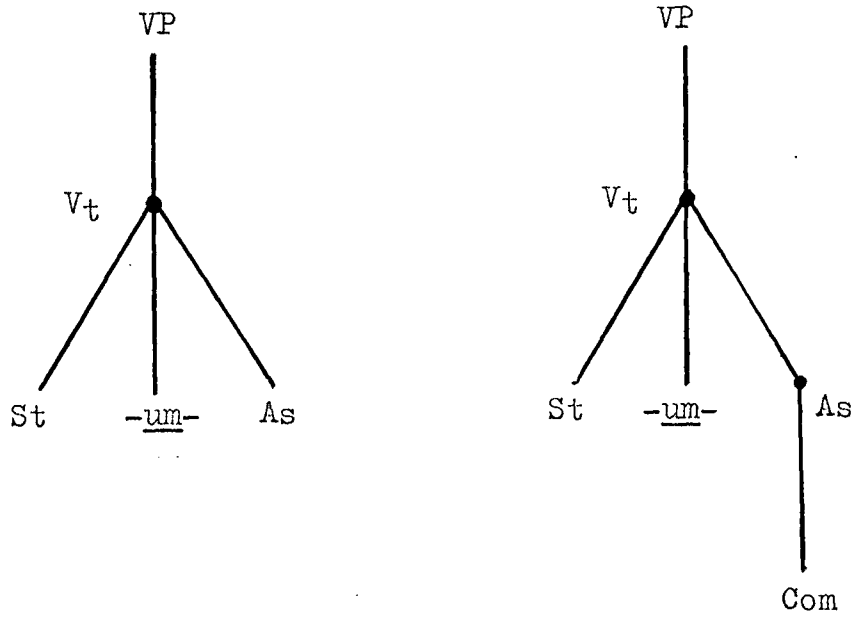
magtanim 'to plant'

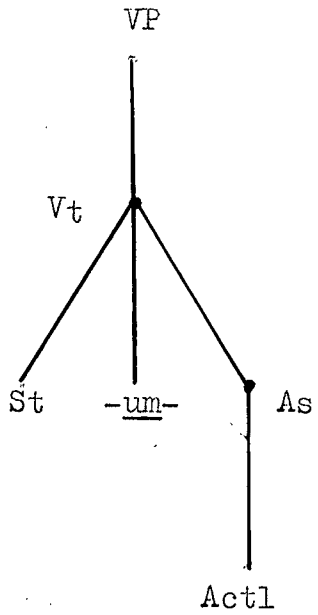
Mag- may also express frequency of action. For example:

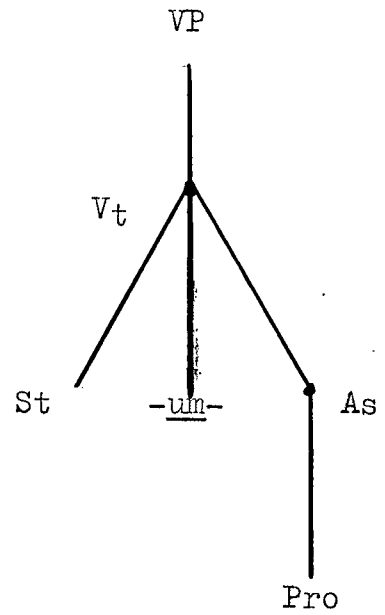
St + -um-			St + mag-		
bilang + -um-	-->	bumilang	bilang + mag	-->	magbilang
'count'		'count/ counted'	'count'		'to count (frequently)'

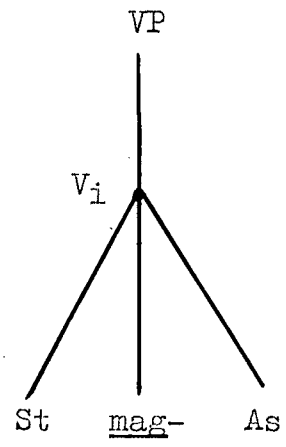
(11) The element As (aspect) must be chosen in Rules (9) and (10). The As symbol is expanded to Pro (proposed) for an action viewed as yet to happen; or, Actl (actual) for an action viewed as being in progress; or, Com (completed) for an action that is viewed as having happened. The selection of As is made in Rule (11). As is not marked by a formative, but As acts at the morphophonemic level.

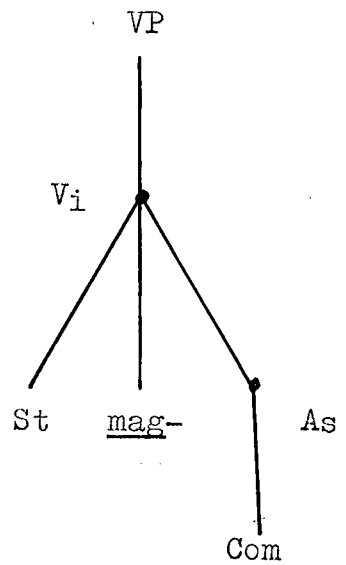
The structure of the Verb is shown by the following trees.

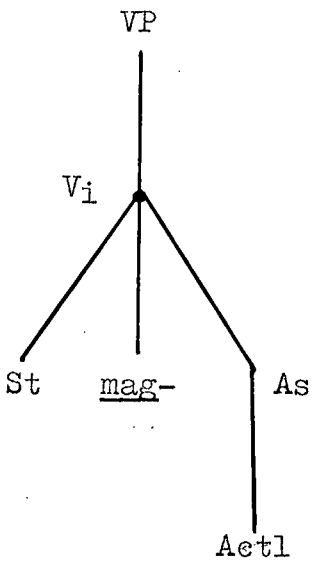


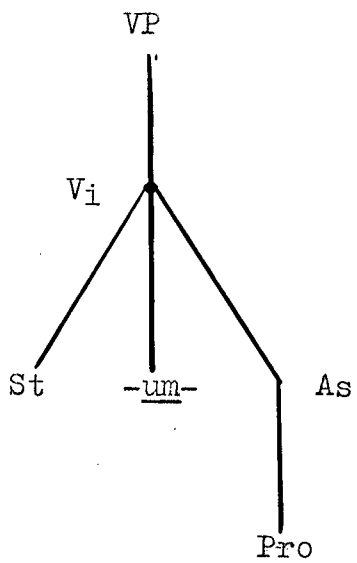

VP
Vt
St
-um-
As
Actl


VP
Vt
St
-um-
As
Pro


VP
Vi
St
mag-
As


VP
Vi
St
mag-
As
Com


VP
Vi
St
mag-
As
Actl


VP
Vi
St
-um-
As
Pro

Morphophonemic Rules of the Verb Stem, Formative, and Aspect

This section will explain the phonological processes that take place when a stem, a formative, and an aspect are chosen. The rules are divided into three parts: (1) St_1 + -um- + As, (2) St_2 + mag- + As, and (3) St_3 { -um- / mag- } As. Each part is subdivided into (a) rules that affect stems with initial /C/ (consonant), and (b) rules that pertain to stems with initial /V/ (vowel).* The sequence of /C/ and /V/ symbols are in the order of their occurrence in the verb stem. The Ø symbol is postulated to mark deletion of the -um- formative in As (aspect) Pro (proposed).

(1) St_1 + -um- + As

(a) St /CV.../ + -um- + Com --> /C/ + -um- + /V.../

e.g.:

pili + -um- + Com --> pumili 'selected/chose'

hingi + -um- + Com --> humingi 'asked'

*We are concerned here with the morphographemics and not with phonological rules. In phonological terms, the initial phone of these stems is a /C/ (consonant).

St /CV.../ + -um- + Actl --> /C/ + -um- + /V/ + /C/ + /V.../

e.g.:

pili + -um- + Actl --> pumipili 'selecting/choosing'

hingi + -um- + Actl --> humihingi 'asking'

St /CV.../ + -um- + Pro --> /C/+/Ø/+/V/+/C/+/V.../

e.g.:

pili + -um- + Pro --> pipili 'will select/will choose'

hingi + -um- + Pro --> hihingi 'will ask'

(b) St /VC.../ + -um- + Com --> -um- + /V/+/C.../

e.g.:

asa + -um- + Com --> umasa 'hoped'

iwas + -um- + Com --> umiwas 'evaded/eluded'

St /VC.../ + -um- + Actl --> -um- + /V/+/V.../

e.g.:

asa + -um- + Actl --> umaasa 'hoping'

iwas + -um- + Actl --> umiiwas 'evading/eluding'

St /VV.../ + -um- + Pro --> /Ø/+/M/+/V.../

e.g.:

asa + -um- + Pro --> aasa 'will hope'

iwas + -um- + Pro --> iiwas 'will evade/will elude'

(2) St_2 + mag- + As

(a) St /CV.../ + mag- + Com --> mag- + /CV.../

In the morphophonemics, the formative mag-, aspect Pro, transforms to nag- in aspects Com and Actl.

e.g.:

tanim + mag- + Com --> nagtanim 'planted'

diwang + mag- + Com --> nagdiwang 'celebrated'

St /CV.../ + mag- + Actl --> mag- +/C/+/V/+/C/+/V.../

e.g.:

tanim + mag- + Actl --> nagtatanim 'planting'

diwang + mag- + Actl --> nagdidiwang 'celebrating'

St /CV.../ + mag- + Pro --> mag- +/C/+/V/+/C/+/V.../

e.g.:

tanim + mag- + Pro --> magtatanim 'will plant'

diwang + mag- + Pro --> magdidiwang 'will celebrate'

(b) St /VC.../ + mag- + Com --> mag- +/V/+/C.../

e.g.:

aral + mag- + Com --> nagaral 'studied'

impok + mag- + Com --> nagimpok 'saved (money)'

St /CV.../ + mag- + Actl --> mag- +/V/+/V/+/C.../

e.g.:

aral + mag- + Actl --> nagaaral 'studying'

impok + mag- + Actl --> nagiimpok 'saving (money)'

St /VC.../ + mag- + Pro --> mag- +/V/+/V/+/C.../

aral + mag- + Pro --> magaaral 'will study'

impok + mag- + Pro --> magiimpok 'will save (money)'

(3) $St_3 \left\{ \begin{matrix} -um- \\ mag- \end{matrix} \right\} As$

(a) St /CV.../ + -um- + Com --> /C/+ -um- + /V.../

e.g.:

bilang + -um- + Com --> bumilang 'counted'

sulat + -um- + Com --> sumulat 'wrote'

St /CV.../ + -um- + Actl --> /C/+ -um- +/V/+/C/+/V.../

e.g.:

bilang + -um- + Actl --> bumibilang 'counting'

sulat + -um- + Actl --> sumusulat 'writing'

St /CV.../ + -um- + Pro --> /C/+/Ø/+/V/+/C/+/V.../

e.g.:

bilang + -um- + Pro --> bibilang 'will count'

sulat + -um- + Pro --> susulat 'will write'

(b) St /VC.../ + -um- + Com --> -um- +/V/+/C.../

e.g.:

apuhap + -um- + Com --> umapuhap 'examined with the touch/groped in the dark'

iwas + -um- + Com --> umiwas 'evaded/eluded'

St /VC.../ + -um- + Actl --> -um- +/V/+/V/+/C.../

e.g.:

apuhap + -um- + Actl --> umaapuhap 'touching with the hand/groping in the dark'

iwas + -um- + Actl --> umiiwas 'evading/eluding'

St /VC.../ + -um- + Pro --> -/Ø-/+/V/+/V/+/C.../

e.g.:

apuhap + -um- + Pro --> aapuhap 'will touch with the the hand/ will grope in the dark'

iwas + -um- + Pro --> iiwas 'will elude/will evade'

St /VC.../ + mag- + Com --> mag- + /V/+/C.../

e.g.:

apuhap + mag- + Com --> nagapuhap 'touched with the hand/groped in the dark'

iwas + mag- + Com --> nagiwas 'eluded/evaded (the action being frequent)

St /VC.../ + mag- + Actl --> mag- +/V/+/V/+/C.../

e.g.:

apuhap + mag- + Actl --> nagaapuhap 'touching with the hand/groping in the dark (the action being frequent)'

iwas + mag- + Actl --> nagiiwas 'eluding/evading (the action being frequent)'

St /VC.../ + mag- + Pro --> /ø/+/V/+/V/+/C.../

e.g.:

apuhap + mag- + Pro -->aapuhap 'will touch with the hand/will grope in the dark'

iwas + mag- + Pro --> iiwas 'will evade/will elude'

We have shown the morphophonemics of the stem, formative, and aspect of transitive and intransitive verbs. A more detailed grammar would include the sub-classification of transitive and intransitive verbs. Such a grammar would specify what kind of NP a particular class of V_t (transitive verb) or V_i (intransitive verb) would take. Perhaps the NP_o would also be considered as a possible influencing environment of the verb.

Morphophonemics of $Prep_m$ sa and the Determiners ang, ang manga, si, and sina

The determiner ang is deleted in the morphophonemics, as follows:

$$Prep_m + Det_{sg} + N \rightarrow Prep_m \quad \left\{ \begin{matrix} N \\ Adj \end{matrix} \right\}$$

e.g.:

sa	+	ang	+	bata	--> sa bata-
$Prep_m$		Det_{sg}		'child'	$Prep_m$ 'child'
					'to/with/from the child'

sa + ang + maganda --> sa maganda
Prep$_m$ Det$_{sg}$ 'beautiful' Prep$_m$ 'beautiful'
('to/with/from the beautiful one')

$$\text{Prep}_m + \text{Det}_{pl}\left\{\begin{matrix}\text{N}\\ \text{Pr}_{dem}\end{matrix}\right\} \rightarrow \text{Prep}_m + \text{manga}\left\{\begin{matrix}\text{N}\\ \text{Adj}\\ \text{Pr}_{dem}\end{matrix}\right\}$$

sa + ang + manga + bata --> sa manga bata
Prep$_m$ Det Det$_{pl}$ 'child' Prep$_m$ manga 'child'
('to/with/from the children')

sa + ang + manga + maganda --> sa manga maganda
Prep$_m$ Det$_{pl}$ 'beautiful' Prep$_m$ manga 'beautiful'
('to/with/from the beautiful ones')

sa + ang + manga + ito --> sa manga ito
Prep$_m$ manga 'this'
('to/with/from these')

The Det$_{sg}$ and Det$_{pl}$ markers before Name are replaced by new markers. The morphophonemic rule undergoes a cycle, thus:

Det_{sg} + Name --> si + Name

$Prep_m$ + si + Name --> $Prep_m$ + kay + Name

Det_{pl} + Name --> sina + Name

$Prep_m$ + sina + Name --> $Prep_m$ + kina + Name

The morphophonemic mapping is shown below:

$$\begin{bmatrix} si \\ sina \end{bmatrix} \text{\_\_\_\_/ sa} \rightarrow \begin{bmatrix} kay \\ kina \end{bmatrix}$$

e.g.:

sa kay Pablo 'to/with/from Pablo'

sa kina Pablo 'to/with/from Pablo and his companions'

Morphophonemics of the Pronoun

$Pr_{per_{sg}}$ (personal pronoun singular), $Pr_{per_{pl}}$ (personal pronoun plural) and Pr_{dem} (demonstrative pronoun) are possible rewrites of NP. After the $Prep_m$ (preposition marker), which is always sa, Pr_{per} (singular and plural) changes shape, and takes the form of the corresponding possessive pronoun, Pr_{pos}. The morphophonemic mappings are shown below:

Singular:

$$\begin{bmatrix} ako \text{ 'I'} \\ ikaw \text{ 'you'} \\ siya \text{ 'he/she'} \end{bmatrix} \text{\_\_\_\_ sa} \rightarrow \begin{bmatrix} akin \text{ 'mine'} \\ iyo \text{ 'yours'} \\ kaniya \text{ 'his/hers'} \end{bmatrix}$$

Plural:

$$\begin{bmatrix} \underline{kami}\ \text{'we'} \\ \underline{kayo}\ \text{'you'} \\ \underline{sila}\ \text{'they'} \end{bmatrix} / \underline{\quad\quad}\ \underline{sa} \longrightarrow \begin{bmatrix} \underline{amin}\ \text{'ours'} \\ \underline{inyo}\ \text{'yours'} \\ \underline{kanila}\ \text{'theirs'} \end{bmatrix}$$

The forms <u>akin</u>, <u>iyo</u>, <u>kaniya</u>, <u>amin</u>, <u>inyo</u> and <u>kanila</u> are included among the Pr_{pos} forms, but after <u>sa</u> they do not always denote "possession". However, these forms do denote possession in initial position in the sentence, i.e., when they are produced by the string:

Cop	+ Pred +	NP		
Cop	akin	ang	libro -->	Akin ang libro.
Cop	'mine'	Det_{sg}	'book'	('The book is mine.')

<u>Morphophonemics of n- + NP</u>

Rule (4) states that NP_O (object noun phrase) should be rewritten as n- + NP. It will be recalled that an NP carries Det_{sg}, which is <u>ang</u> for N (noun), and Det_{pl} <u>ang manga</u> for N. Det_{sg} for Name is <u>si</u>; Det_{pl} for Name is <u>sina</u>. The morphophonemic rule for N is as follows:

<u>n-</u> + <u>ang</u> --> <u>nang</u>

<u>n-</u> + <u>ang manga</u> --> <u>nang manga</u>

On the other hand, the morphophonemic rule for Name appears, thus:

n- + si --> ni

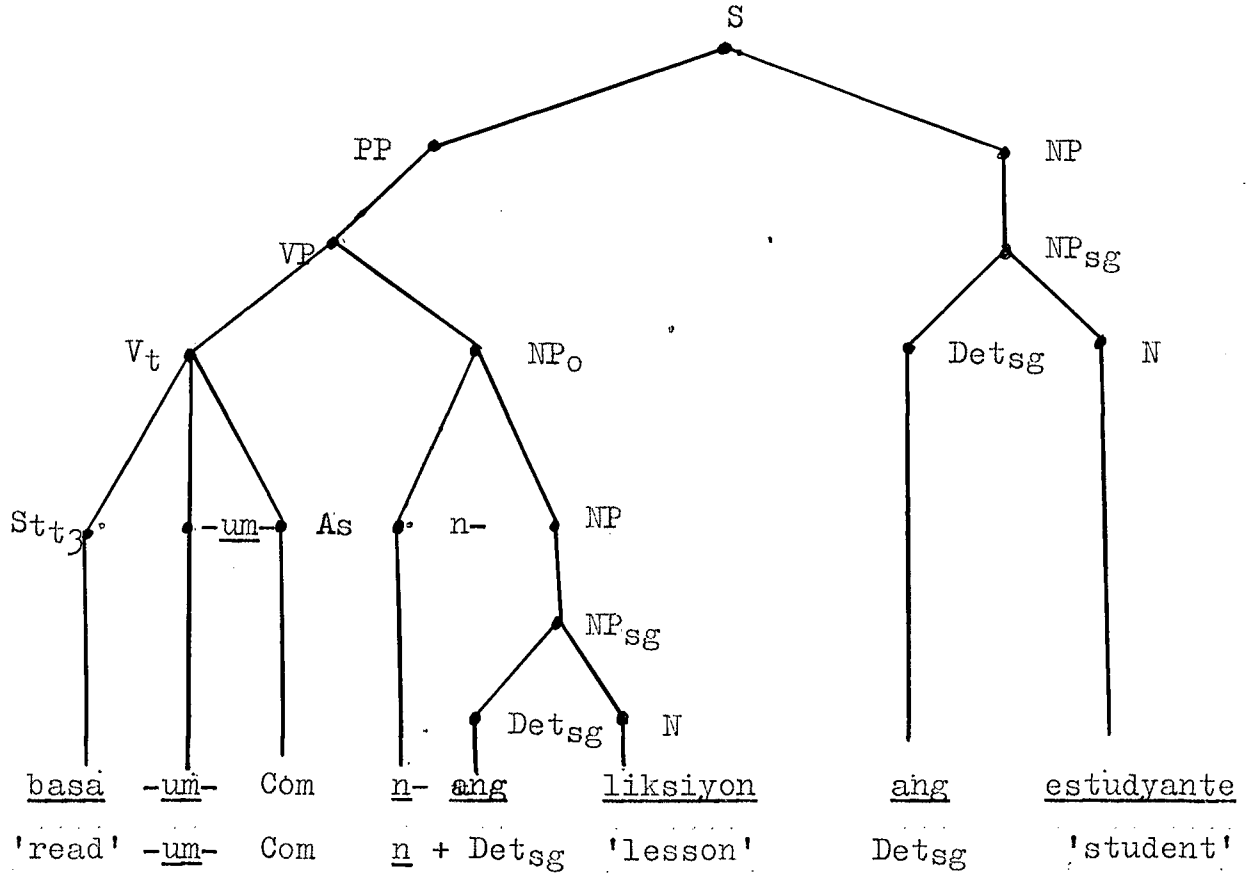
n- + sina --> nina

e.g.:

V	NP_o		NP	
Humingi	nang	lapis	ang	estudyante.
'asked'	n- + Det_{sg}	'pencil'	Det_{sg}	'student'

('The student asked for a pencil.')

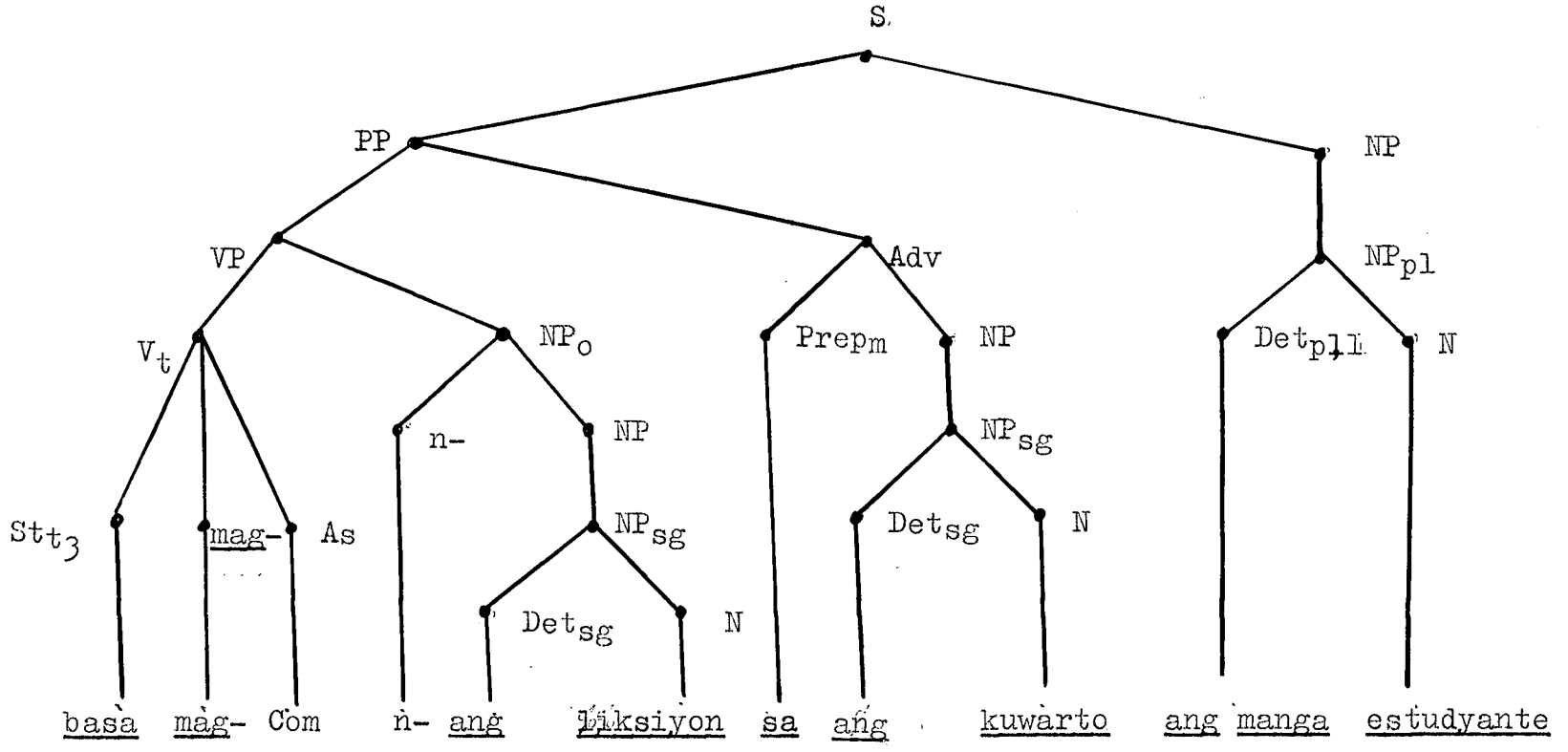
(1)



Bumasa nang liksiyon ang estudyante.

('The student read the lesson.')

(2)

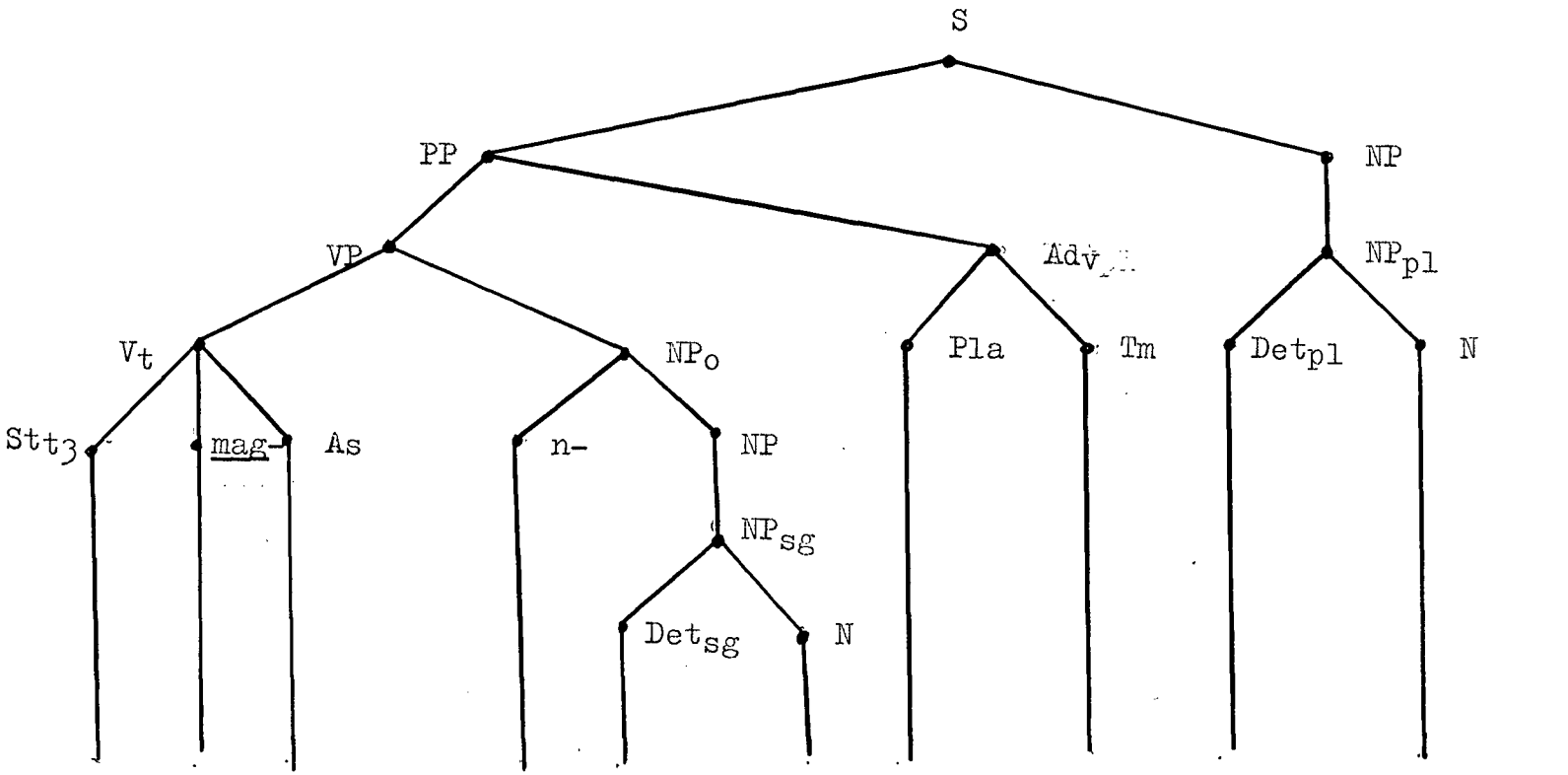


'read' mag- Com n- + Det_{sg} 'lesson' $Prep_m$ 'room' Det_{pl} 'student'

Nagbasa nang liksiyon sa kuwarto ang manga estudyante.

('The students read the lesson in the room.')

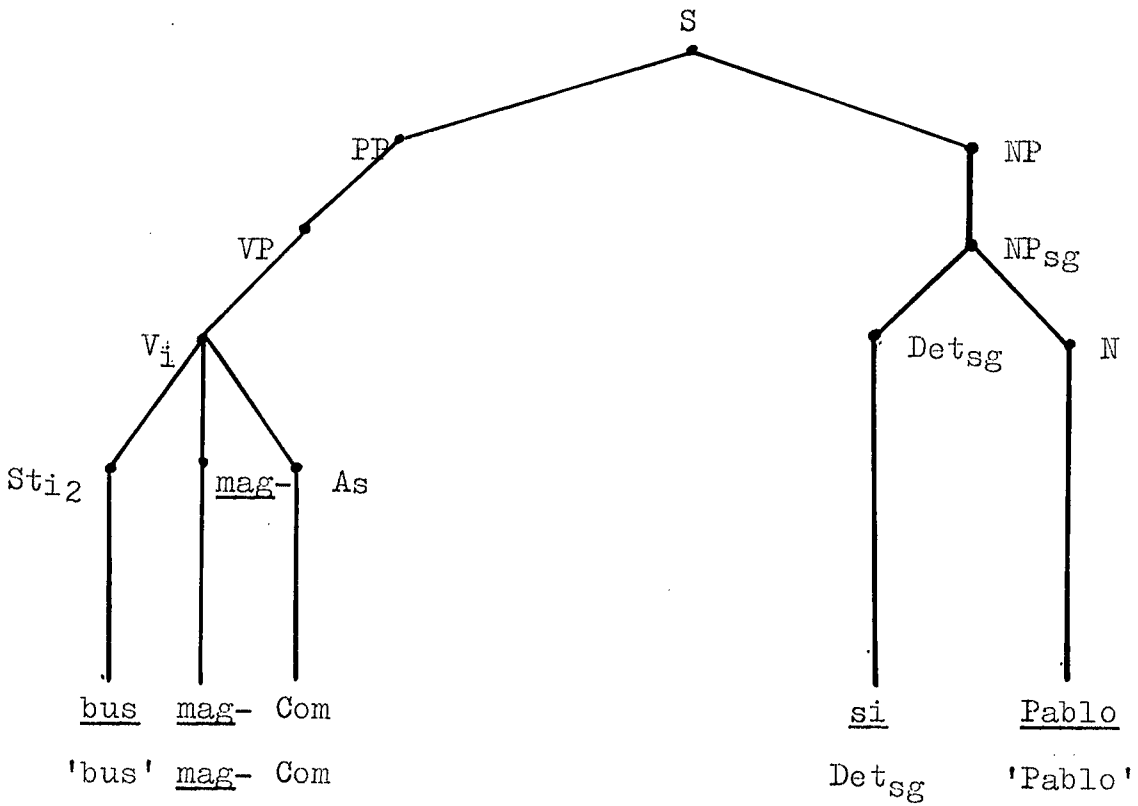
(3)



Nagbasa nang liksiyon dito kagabi ang manga estudyante.

('The students read the lesson here last night.')

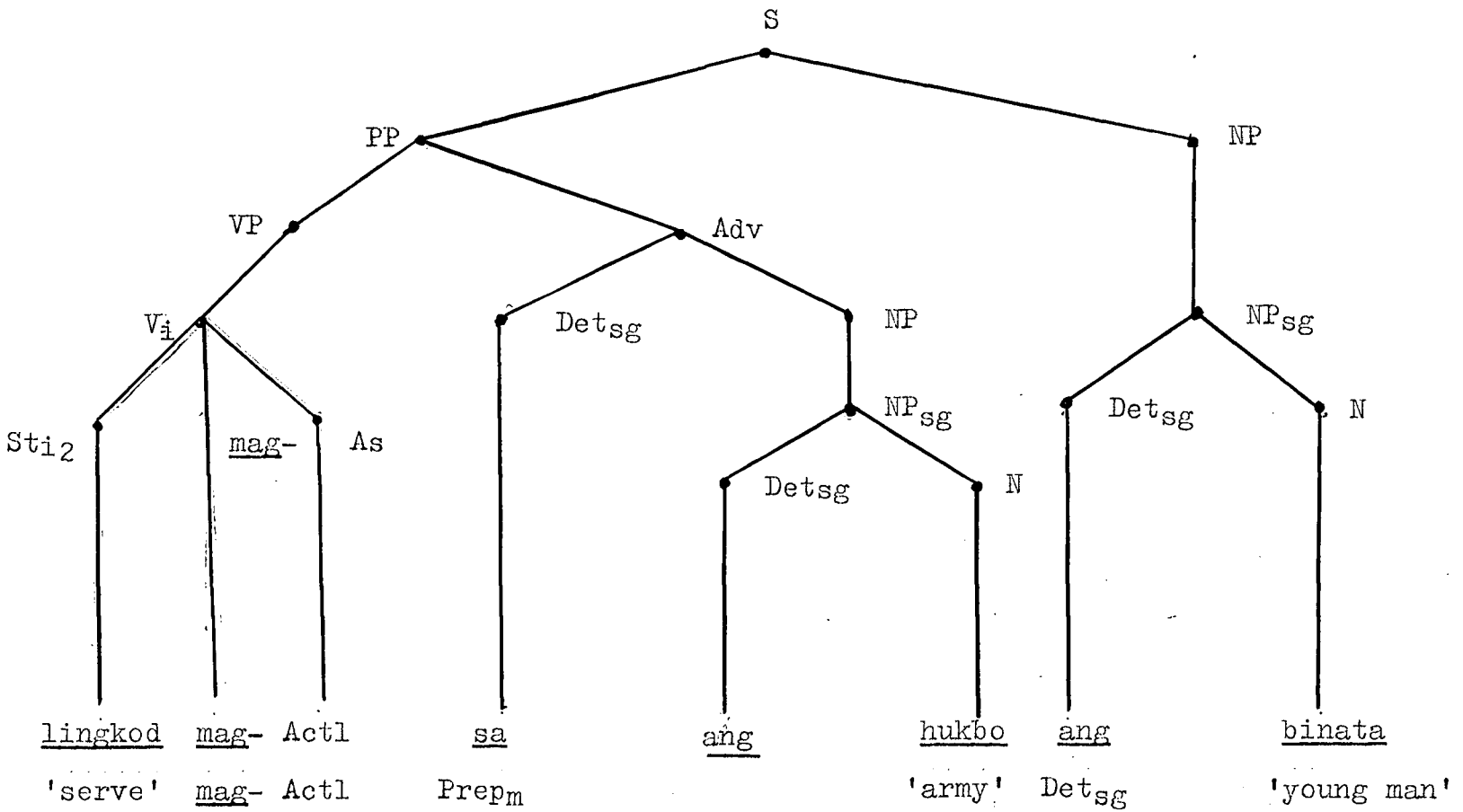
(4)



Nagbus si Pablo.

('Pablo took the bus.')

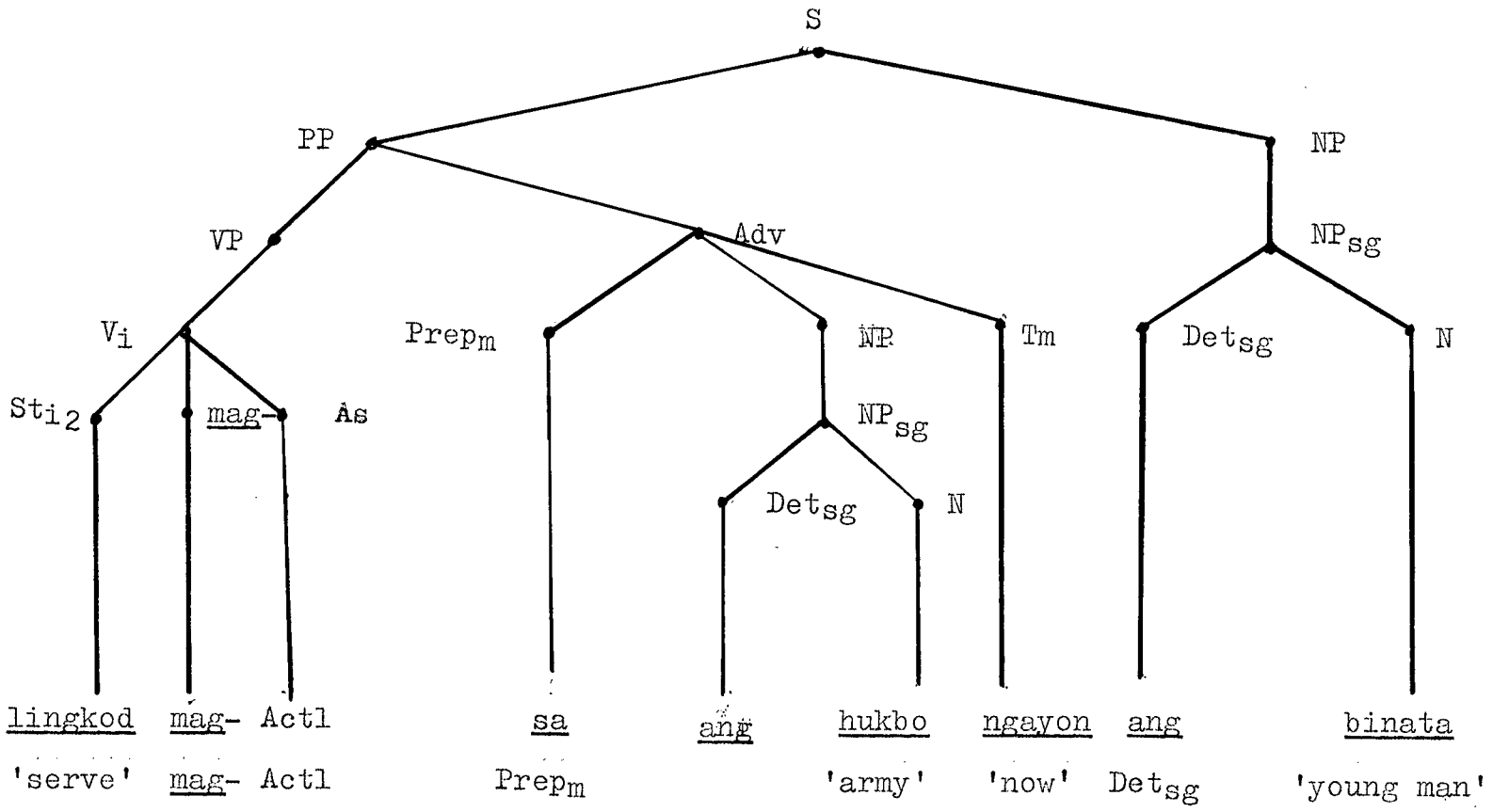
(5)



Naglilingkod sa hukbo ang binata.

('The young man is serving in the army.')

(6)



Naglilingkod sa hukbo ngayon ang binata.

('The young man is serving now in the army.')

The tree structures in the preceding pages represent kernel sentences like the following.

(1) (a) Pumili nang libro ang estudyante.
'chose' n- + Det_{sg} 'book' Det_{sg} 'student'
('The student chose a book.')

(b) Pipitas nang rosas ang binata.
'will pick' n- + Det_{sg} 'rose' Det_{sg} 'young man'
('The young man will pick a rose.')

(c) Humingi nang paliwanag ang
'asked' n- + Det_{sg} 'explanation' Det_{sg}
estudyante.
'student'

(2) (a) Pumili nang libro sa estante
'chose' n- + Det_{sg} 'book' $Prep_m$ 'shelf'
ang estudyante.
Det_{sg} 'student'

(b) Nagdiriwang nang kaarawan sa
'celebrating' n- + Det_{sg} 'birthday' $Prep_m$
tahanan ang dalaga.
'home' Det_{sg} 'young woman'

(c) Magbibigay nang panayam sa
'will give' n- + Det_{sg} 'lecture' $Prep_m$
auditoryum ang propesor.
'auditorium' Det_{sg} 'professor'

('The professor will give a lecture in the auditorium.')

(3) (a) Pumili nang libro sa estante
'chose' n- + Det_{sg} 'book' $Prep_m$ 'shelf'
kanina ang estudyante.
'sometime ago' Det_{sg} 'student'

(b) Nagdiriwang nang kaarawan sa
'celebrating' n- + Det_{sg} 'birthday' $Prep_m$
tahanan ngayon ang dalaga.
'home' 'now' Det_{sg} 'young woman'
('The young woman is celebrating her birthday at her home now.')

(c) Magbibigay nang panayam sa
'will give' n- + Det_{sg} 'lecture' $Prep_m$
auditoryum bukas ang propesor.
'auditorium' 'tomorrow' Det_{sg} 'professor'
('The professor will give a lecture at the auditorium tomorrow.')

(4) (a) Umalis sa kuwarto ang estudyante.
'went out' $Prep_m$ 'room' Det_{sg} 'student'
('The student went out from the room.')

(b) Nagbus sa Pasig kahapon
'took the bus' $Prep_m$ 'Pasig' 'yesterday'

si Pablo.
Det_{sg} 'Pablo'
('Pablo took the bus in Pasig yesterday.')

(c) Tumingala sa langit ang babae.
'looked upward' $Prep_m$ 'sky' Det_{sg} 'woman'
('The woman looked up to the sky.')

(5) (a) Umiiyak sa kuwarto ang babae.
'crying' $Prep_m$ 'room' Det_{sg} 'woman'
('The woman is crying in the room.')

(b) Naglalakad sa kalye ang
'walking' $Prep_m$ 'street' Det_{sg}
bata.
'child'
('The child is walking in the street.')

(c) Nagiiwas sa binata
'evading/eluding' $Prep_m$ 'young man'
ang dalaga.
Det_{sg} 'young woman'
('The young woman is eluding the young man.')

(6) (a) Umiiyak sa kuwarto kagabi
'crying' $Prep_m$ 'room' 'last night'
ang babae.
Det_{sg} 'woman'
('The woman was crying in the room last night.')

(b) Naglalakad sa kalyè kanina
'walking' $Prep_m$ 'street' 'sometime ago'
ang bata.
Det_{sg} 'child'
('The child was waling in the street
sometime ago.')

(c) Nagiiwas sa binata
'evading/eluding' $Prep_m$ 'young man'
ngayon ang dalaga.
'now' Det_{sg} 'young woman'
('The young woman is evading the young man
now.')

KERNEL 2 RULES

(1) S --> PP + NP

(2) PP --> Cop + Pred

(3) Pred --> D

(4) D --> { Adj / Adv }

(5) Adv --> Pla (Tm)

(6) NP --> { NP_{sg} / NP_{pl} } (S_1)

(7) NP_{sg} --> { Det_{sg} { N / Name } / Pr_{persg} / Pr_{dem} }

(8) NP_{pl} --> { Det_{pl} { N / Name / Pr_{dem} } / $Pr_{per_{pl}}$ }

To Lexicon

(9) Cop --> ∅

(10) Det_{sg} --> { ang / _____ N / si / _____ Name }

(11) Det_{pl} --> $\left\{ \begin{array}{l} \underline{ang}\ \underline{manga}\ /\ \_\_\_\_ \\ \underline{sina}\ /\ \_\_\_\_\ Name \end{array} \right\} \left\{ \begin{array}{l} N \\ Pr_{dem} \end{array} \right\}$

(12) Adj --> masipag 'industrious', maganda 'beautiful', maaga 'early'...

(13) Pla --> dito 'here', diyan 'there', doon 'there (yonder)'...

(14) Tm --> bukas 'tomorrow', kahapon 'yesterday', wala 'absent'...

(15) $Pr_{per_{sg}}$ --> ako 'I', ikaw 'you', siya 'he/she'.

(16) $Pr_{per_{pl}}$ --> kami 'we - exclusive', tayo 'we - inclusive', sila 'they'.

(17) Pr_{dem} --> ito 'this', iyan 'that', iyon 'that (yonder)'.

(18) N --> { bata 'child', estudyante 'student', lalaki 'man'... / libro 'book', kuwarto 'room', aso 'dog'... / damdamin 'feeling', pagibig 'love', galak 'joy'... }

DISCUSSION

The Copula

Cop (copula), is postulated in the PP (predicate phrase) of this kernel and that of Kernels 3 and 4 for the purpose of establishing the relationship between the two units of the sentence, namely, the type of predicate and the NP (noun phrase). Although unmarked (i.e., ∅) in the surface grammar, Cop is needed as a relation-marker. The necessity for including Cop in the rules becomes more patent in the case of NP (noun phrase) + NP (noun phrase) sentence type, to show that the two NP's are not equal in value. The underlying construction marker is also necessary in inverse transformation. For instance: Base sentence:

Cop + Adj + NP

Cop maganda ang bata.

Cop 'beautiful' Det_{sg} 'child'

('The child is beautiful'.)

can be transformed to the string:

NP + Cop + ay + Adj

Ang bata Cop ay maganda.

('The child is beautiful'.)

which underlies the sentence:

Ang bata ay maganda.

('The child is beautiful'.)

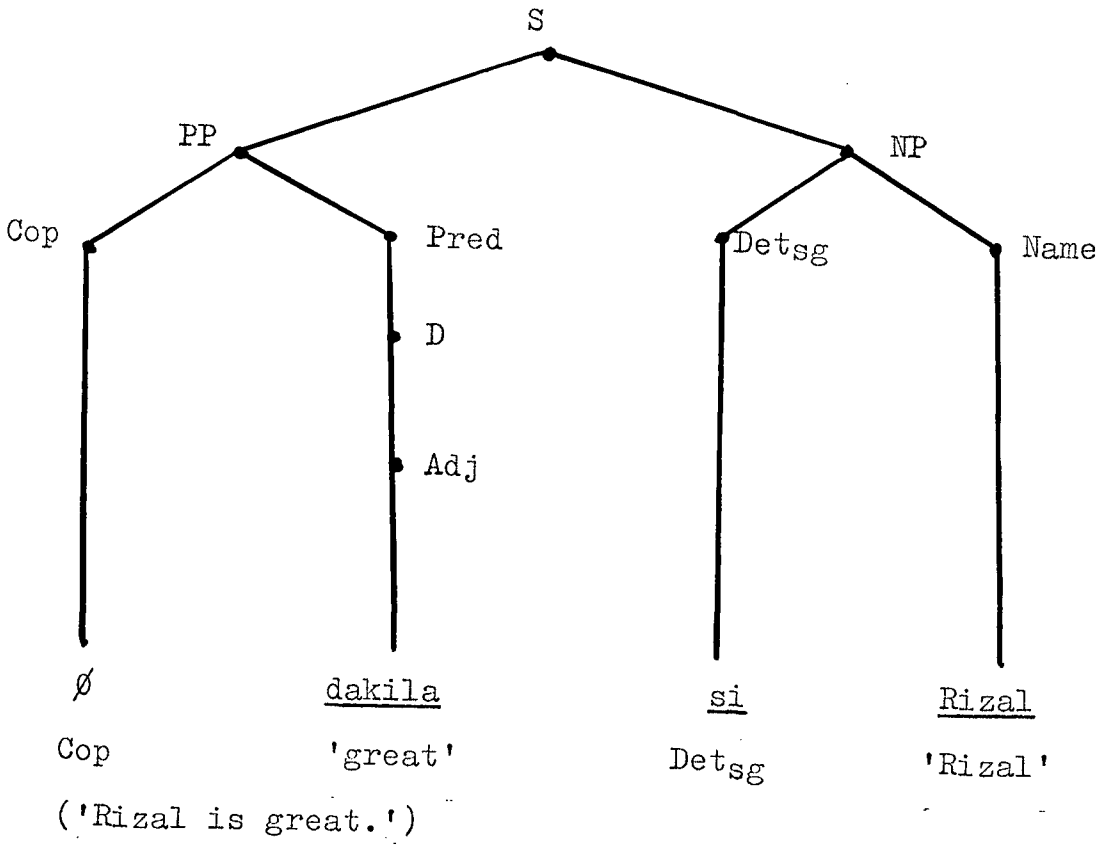
One school of thought in traditional Tagalog grammar theorizes that ay is a copula. But ay is used in this structure and in other patterns also to mark simple inversion. The notion of the copula-like signal is correct. The Cop in the deep structure shows this underlying relationship, and is made Ø by the morpho-phonemic rules in both patterns.

Adjective Sentence Type

Kernel 2 is of the sentence structure type D (descriptive) + NP (noun phrase). Actually, this rule brings together two similar sentence types: (1) Adj (adjective or adjectival) + NP, and (2) Adv (adverb or adverbial) + NP.

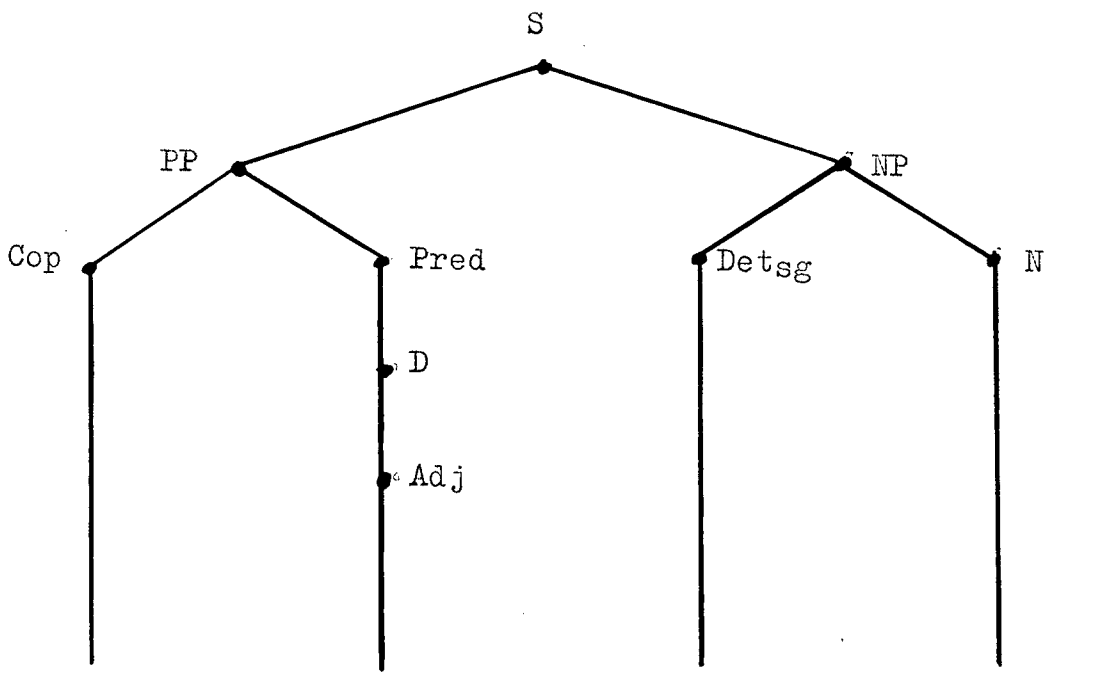
The tree structures in the following pages show typical adjective structures.

(1)



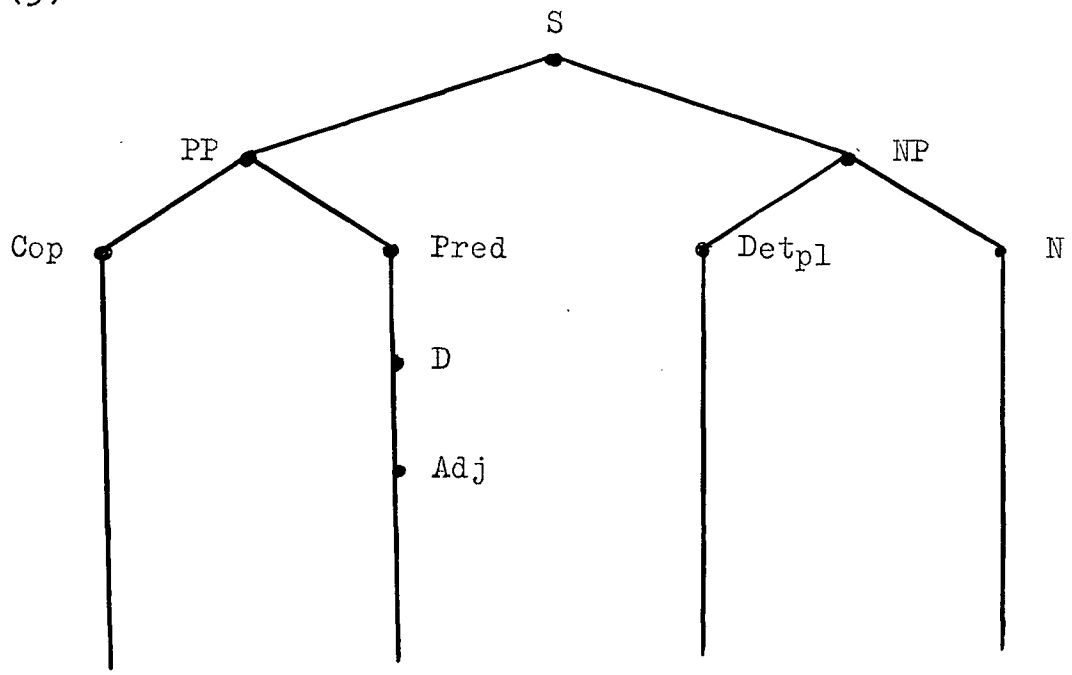
('Rizal is great.')

(2)



('The view is beautiful.')

(3)



('The columns are five deep.')

Adj is easily identifiable. This form-class may appear as (1) simple stem, (2) stem with formative morpheme, or, (3) stem fully reduplicated. The ma- morpheme attached to the initial phoneme of any adjective stem is commonly used in the formation of adjectives and adjectivals.

(1) simple adjective stem

pili 'chosen/selected'

e.g.: Pili ang manga atleta.
'selected' Det_{pl} 'athlete'
('The athletes are selected'.)

duwag 'coward'

e.g.: Duwag ang lalaki.
'coward' Det_{sg} 'man'
('The man is a coward.')

apat 'four'

e.g.: Apat sila.
'four' 'they'
('They are four.')

(2) stem with ma- morpheme

ma- + ganda --> maganda
'beauty' 'beautiful'

e.g.: Maganda ang bata.
'beautiful' Det_{sg} 'child'
('The child is beautiful.')

ma- + sipag --> masipag
'industry' 'industrious'

e.g.: Masipag si Pablo.
'industrious' Det_{sg} 'Pablo'
('Pablo is industrious.')

ma- + aga --> maaga
'earliness' 'early'

e.g.: Maaga ang propesor.
'early' Det_{sg} 'professor'
('The professor is early.')

(3) stem fully reduplicated

punit-punit
'torn' 'torn'

e.g.: Punit-punit ang damit.
'torn' 'torn' Det_{sg} 'clothes'
('The clothes are seriously torn.')

bali-bali
'fractured' 'fractured'

e.g.: Bali-bali ang patpat.
'fractured' 'fractured' Det_{sg} 'bamboo split'
('The bamboo split is fractured.')

lima-lima
'five' 'five'

e.g.: Lima-lima ang hanay.
'five' 'five' Det_{sg} 'column'
('The column is five deep.')

The Adverbial

Adv (adverb or adverbial) may be rewritten as Pla (place adverbial), + Tm (time adverbial). Thus,we get the strings:

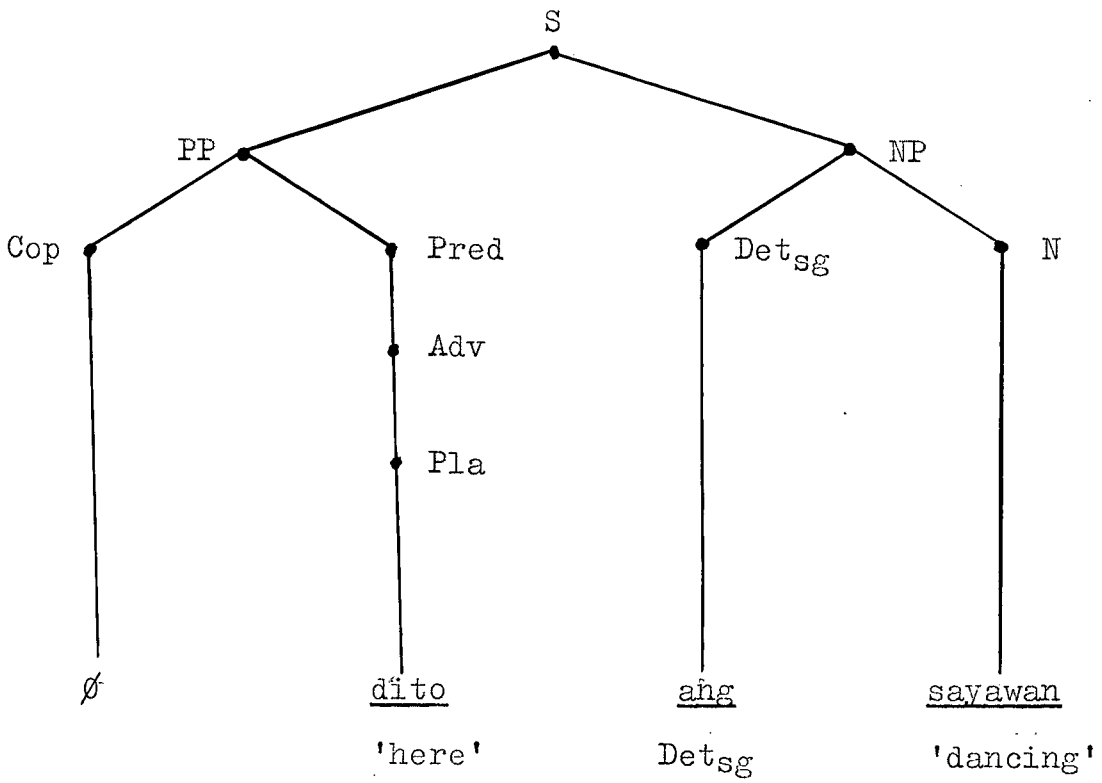
Cop + Pla + NP

Cop + Pla + Tm + NP

Pla must be chosen. Tm is optional. The structure reveals that Tm is not necessary to generate a grammatical sentence. If Tm is chosen at all, it must co-occur with Pla.

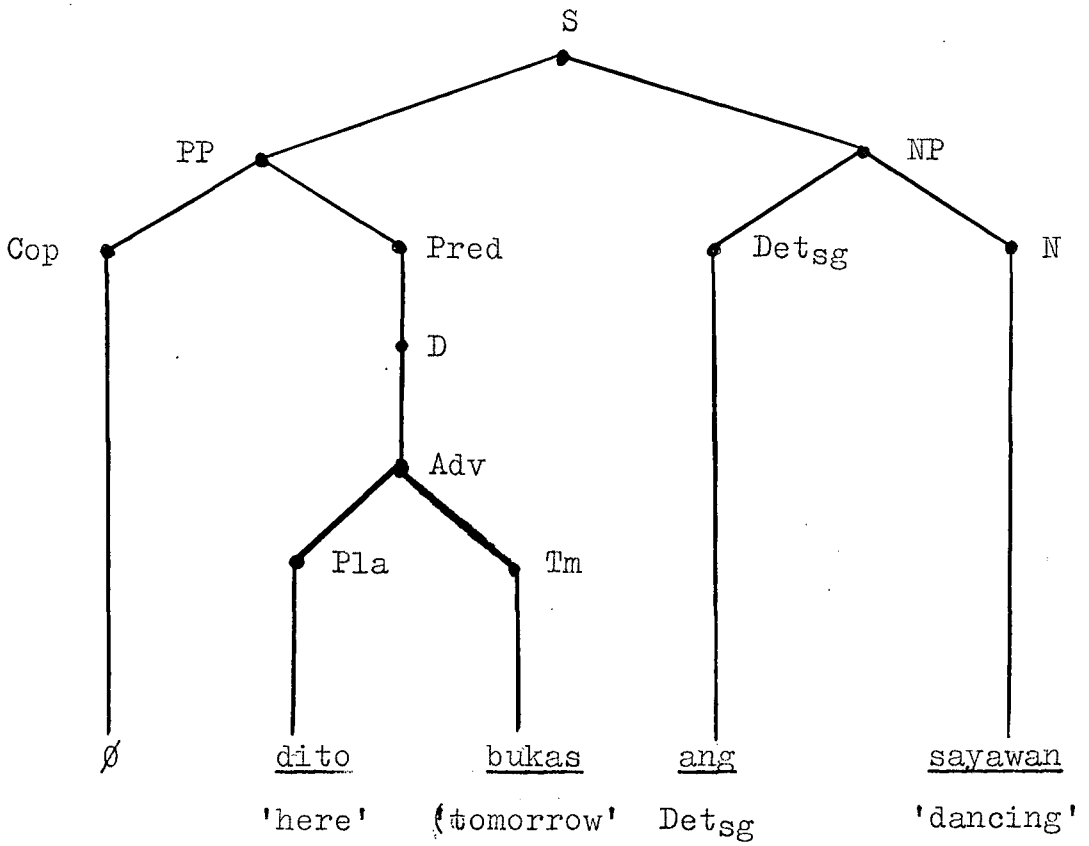
The strings are shown in the following structure trees.

(1) Cop + Pla + NP



('The dancing will take place here.')

(2) Cop + Pla + Tm + NP



('The dancing will take place here tomorrow.')

KERNEL 3 RULES

(1) S --> PP + NP

(2) PP --> Cop + Pred

(3) Pred --> NP

(4) NP --> $\left\{ \begin{matrix} NP_{sg} \\ NP_{pl} \end{matrix} \right\}$ (S_1)

(5) NP_{sg} --> $\left\{ \begin{matrix} Det_{sg} \left\{ \begin{matrix} N \\ Name \end{matrix} \right\} \\ Pr_{per_{sg}} \\ Pr_{pos_{sg}} \\ Pr_{dem} \end{matrix} \right\}$

(6) NP_{pl} --> $\left\{ \begin{matrix} Det_{pl} \left\{ \begin{matrix} N \\ Name \\ Pr_{dem} \end{matrix} \right\} \\ Pr_{per_{pl}} \\ Pr_{pos_{pl}} \end{matrix} \right\}$

To Lexicon

(7) Cop --> ∅

(8) Det_{sg} --> $\left\{ \begin{matrix} \underline{ang} \ / \ \_\_\_\_ \ N \\ \underline{si} \ / \ \_\_\_\_ \ Name \end{matrix} \right\}$

(9) Det_{pl} --> { ang manga / _____ { N / Pr_{dem} } ; sina / _____ Name { N / Pr_{dem} } }

(10) $Pr_{per_{sg}}$ --> ako 'I', ikaw 'you', siya 'he/she'.

(11) $Pr_{per_{pl}}$ --> kami 'we - exclusive', tayo 'we - inclusive', kayo 'you', sila 'they'.

(12) $Pr_{pos_{sg}}$ --> akin 'mine', iyo 'yours', kaniya 'his/hers'.

(13) $Pr_{pos_{pl}}$ --> amin 'ours', inyo 'yours', kanila 'theirs'.

(14) Pr_{dem} --> ito 'this', iyan 'that', iyon 'that (yonder)'.

(15) N --> { bata 'child', estudyante 'student', lalaki 'man'... ; libro 'book', kuwarto 'room', aso 'dog'... ; damdamin 'feeling', pagibig 'love', galak 'joy'... }

DISCUSSION

We explained in the discussion of Kernel 2 rules that Cop is postulated to show the relationship of the two parts of the sentence, and also to signal the occurrence of the construction marker ay. The need for establishing the relationship appears to be more relevant in the NP + NP sentence construction type.

The first NP in this formulation is traceable to PP. With the postulation of Cop, it becomes clear that the two NP sets differ from each other and are not equal in rank. In the sentence:

NP		NP
Ang estudyante	ang	sekretaryo.
Det_{sg} 'student'	Det_{sg}	'secretary'

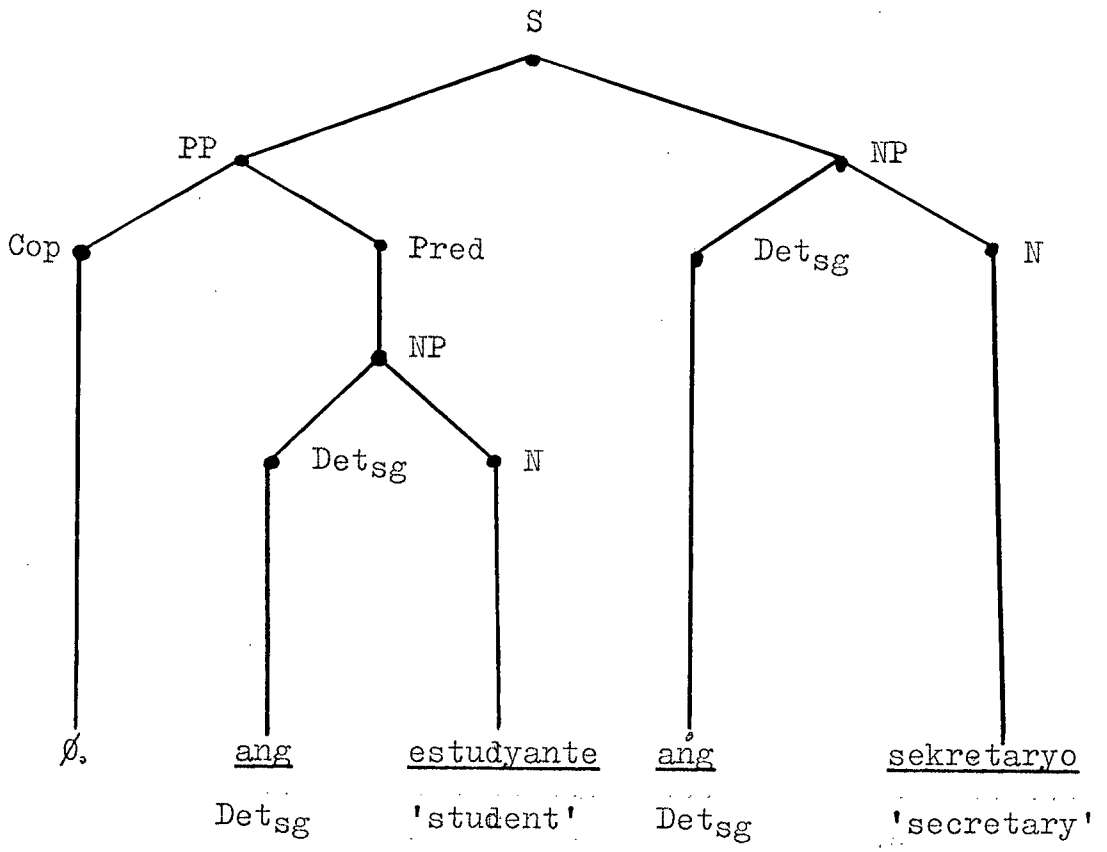
('The secretary is the student.')

it is assumed that one NP is the subject, and the other is the predicate. However, there is no indicator to show which set belongs to what set. With Cop positioned in front of ang estudyante, the latter reveals its rank as predicate, hence:

Cop	+	NP	+	NP
Cop	ang	estudyante	ang	sekretaryo.
Cop	Det_{sg}	'student'	Det_{sg}	'secretary'

('The secretary is the student.')

The structure may be clearly shown by the following tree.



('The secretary is the student.')

In other words, ang estudyante ('the student') is a PP (predicate phrase) by source. The kernel string:

Cop + NP_1 + NP_2

Cop + ang estudyante ang sekretaryo.

Cop Det_{sg} 'student' Det_{sg} 'secretary'

('The secretary is the student.')

may be transformed to:

NP_2 + ay + Cop + NP_1

Ang sekretaryo ay ang estudyante.

Det_{sg} 'secretary' ay Det_{sg} 'student'

('The secretary is the student.')

Note that Cop is automatically deleted in the morphophonemics.

This explication of relationship applies as well to all pronouns in the PP position and pronouns in the NP position. The relationship and rank of the seemingly equal sets are established by the postulation of Cop.

The rules include structures like the following:

NP + NP

Ø ang doktor si Pablo.

Cop Det_{sg} 'doctor' Det_{sg} 'Pablo'

('Pablo is the doctor.')

Ø ang titser si Maura.
Cop Det_{sg} 'teacher' Det_{sg} 'Maura'
('Maura is the teacher.')

Ø ang manga mananayaw sina Isabel.
Cop Det_{pl} 'dancer' Det_{pl} 'Isabel'
('Isabel and her companions are the dancers.')

In actual utterance the determiners are deleted when they occur before profession nouns, thus:

Ø doktor si Pablo.
'doctor' Det_{sg} 'Pablo'
('Pablo is the doctor.')

Ø titser si Maura.
'teacher' Det_{sg} 'Maura'
('Maura is the teacher.')

Ø mananayaw sina Isabel.
'dancer' Det_{pl} 'Isabel'
('Isabel and her companions are the dancers.')

The first NP has other possible rewrites: $Pr_{per_{sg}}$ (personal pronoun singular), $Pr_{per_{pl}}$ (personal pronoun plural), $Pr_{pos_{sg}}$ (possessive pronoun singular), $Pr_{pos_{pl}}$ (possessive pronoun plural), and Pr_{dem} (demonstrative pronoun). Pr_{per} and Pr_{pos} have singular as well

as plural forms, but do not take a determiner. Pr_{dem} does not take a Det_{sg}, but it takes a Det_{pl}. Pronoun in PP position and pronoun in NP position have the same rewriting possibilities. The general rule produces sentences like the following:

Siya siya.
'he/she' 'he/she'
('It is he/she'.)

Ako siya.
'I' 'he/she'
('It is I.')

Sila ikaw.
'they' 'you'
('You are they.')

Also the following possibilities:

Iyan iyan.
'that' 'that'
('That is that.')

Ito iyan.
'this' 'that'
('That is this.')

Iyan ito.

'that' 'this'

('This is that.')

It seems that Pr_{pos} needs conditioning. Should the pronoun in the PP position be a Pr_{pos}, the pronoun should not take a Pr_{pos} in the NP position, and vice versa. This is due to the production of the following aberrant structures:

*Akin iyo.

'mine' 'yours'

('Yours is mine.')

*Iyo akin.

'yours' 'mine'

('Mine is yours.')

*Kanila inyo.

'theirs' 'yours'

('Yours (plural) is theirs.')

These would need a determiner.

Base:

*Akin iyo.

'mine' 'yours'

('Yours is mine.')

*Iyo akin.
'yours' 'mine'
('Mine is yours.')

*Kanila inyo.
'theirs' 'yours'
('Yours (plural) is theirs.')

Actual Sentence:

Akin ang iyo.
'mine' Det_{sg} 'yours'
('Yours is mine.')

Iyo ang akin.
'yours' Det_{sg} 'mine'
('Mine is yours.')

Kanila ang inyo.
'theirs' Det_{sg} 'yours'
('Yours (plural) is theirs.')

Or, the ay transform:

Ang iyo ay akin.
Det_{sg} 'yours' ay 'mine'
('Yours is mine.')

Ang akin ay iyo.

Det_{sg} 'mine' ay 'yours'

('Mine is yours.')

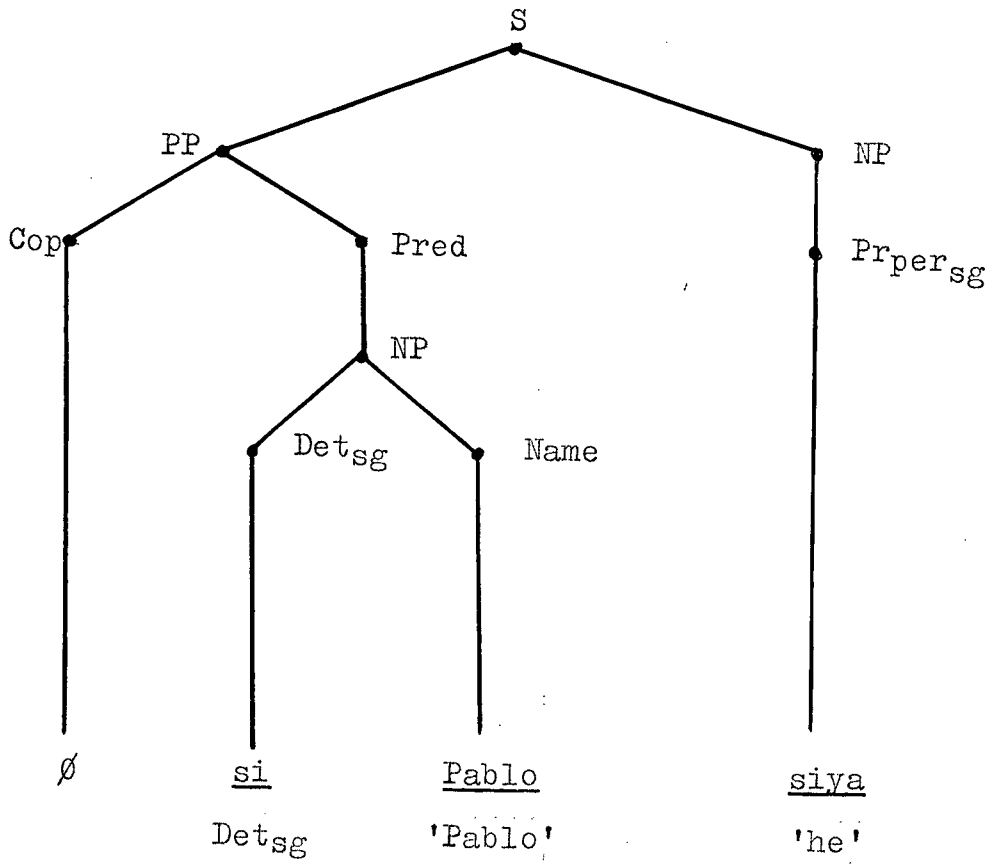
Ang inyo ay kanila.

Det_{sg} 'yours' ay 'theirs'

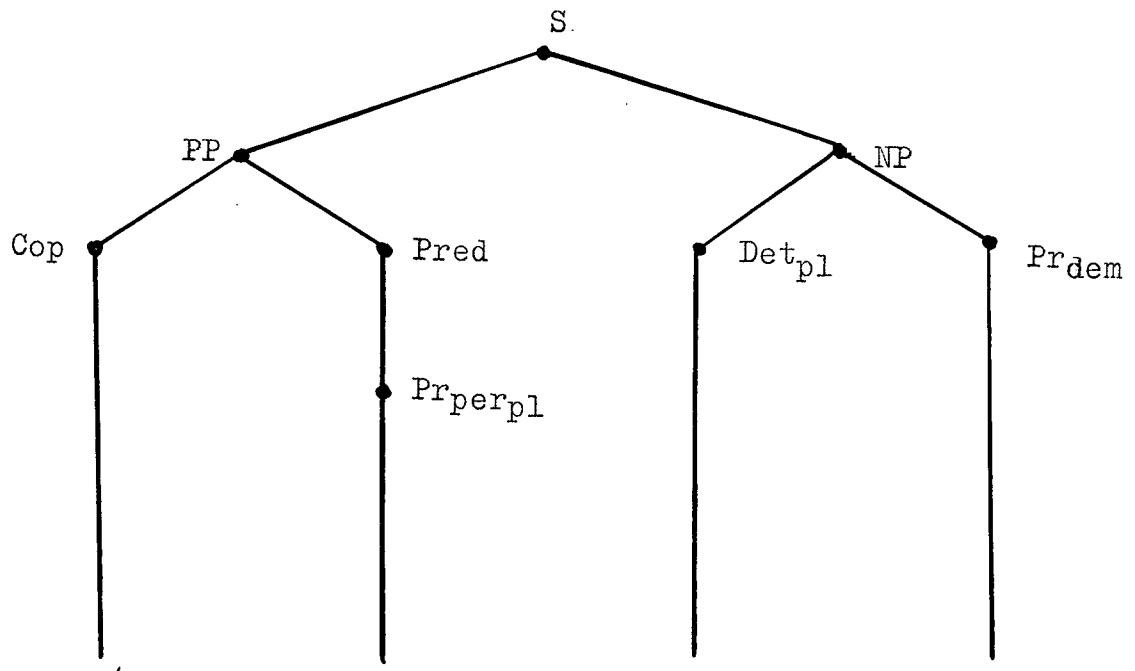
('Yours (plural) is theirs.')

But such sentences are peripheral.

Sample derivations are shown by the following trees.



('He is Pablo.')



('Those are they.')

KERNEL 4 RULES

(1) S --> PP + NP

(2) PP --> Cop + Pred

(3) Pred --> $Prep_{ph}$

(4) $Prep_{ph}$ --> ($Prep_w$) $Prep_m$ + NP

(5) NP --> $\left\{ \begin{matrix} NP_{sg} \\ NP_{pl} \end{matrix} \right\}$ (S_l)

(6) NP_{sg} --> $\left\{ \begin{matrix} Det_{sg} \left\{ \begin{matrix} N \\ Name \end{matrix} \right\} \\ Prper_{sg} \\ Prpos_{sg} \\ Pr_{dem} \end{matrix} \right\}$

(7) NP_{pl} --> $\left\{ \begin{matrix} Det_{pl} \left\{ \begin{matrix} N \\ Name \\ Pr_{dem} \end{matrix} \right\} \\ Prper_{pl} \\ Prpos_{pl} \end{matrix} \right\}$

To Lexicon

(8) Cop --> ø

(9) Det_{sg} --> $\left\{ \begin{matrix} \underline{ang} \ / \ \_\_\_\_ \ N \\ \underline{si} \ / \ \_\_\_\_ \ Name \end{matrix} \right\}$

(10) Det_{pl} --> { ang manga / ____ { N / Prdem } ; sina / ____ Name { N / Prdem } }

(11) $Pr_{per_{sg}}$ --> ako 'I', ikaw 'you', siya 'he/she'.

(12) $Pr_{per_{pl}}$ --> kami 'we - exclusive', tayo 'we - inclusive', kayo 'you', sila 'they'...

(13) $Pr_{pos_{sg}}$ --> akin 'mine', iyo 'yours', kaniya 'his/hers'.

(14) $Pr_{pos_{pl}}$ --> amin 'ours', inyo 'yours', kanila 'theirs'.

(15) Pr_{dem} --> ito 'this', iyan 'that', iyon 'that (yonder)'.

(16) $Prep_{w}$ --> ayon 'in accord with', tungkol 'about', nasa 'located at/with'...

(17) $Prep_{m}$ --> sa

(18) N --> { bata 'child', estudyante 'student', lalaki 'man'... ; libro 'book', kuwarto 'room', aso 'dog'... ; damdamin 'feeling', pagibig 'love', galak 'joy'... }

DISCUSSION

The $Prep_W$ (Preposition Word)

$Prep_W$ (preposition word) is a cover symbol for full-words, which by their nature are prepositions. Full-word prepositions or prepositionals cannot function alone. They must co-occur with the preposition marker, sa. To illustrate:

$Prep_W$ --> tungkol 'about'

without a sa after it, will produce a deviant string:

*$Prep_W$	+	NP
tungkol		nasyonalismo
'about'		'nationalism'

('about nationalism')

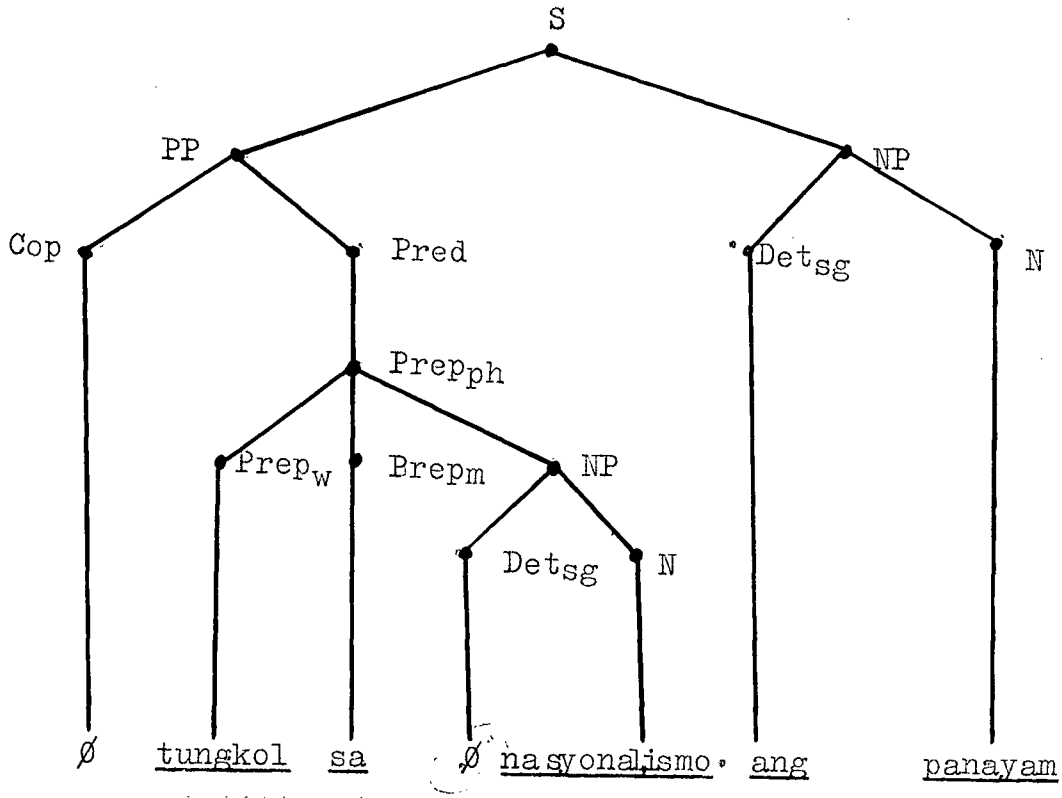
The grammatical string is:

$Prep_W$	+	$Prep_m$	+	NP
tungkol		sa		nasyonalismo
'about'		$Prep_m$		'nationalism'

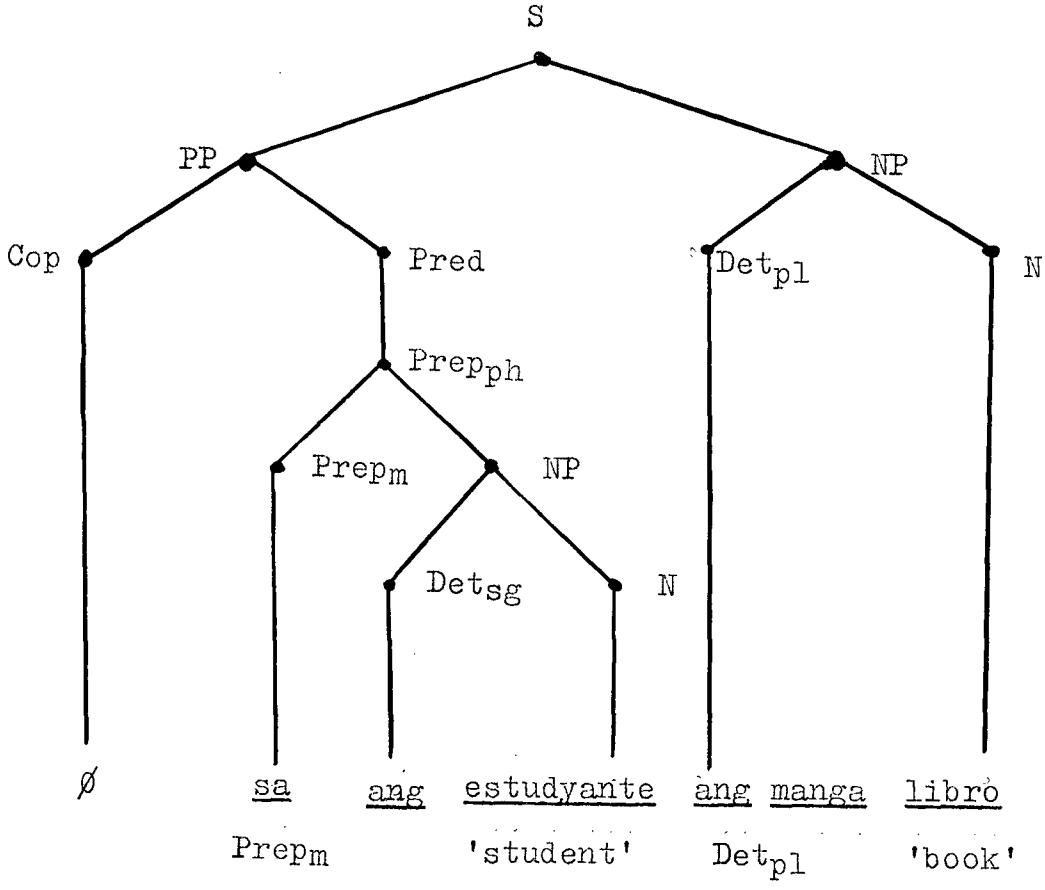
('about nationalism')

The deletion of the determiner singular ang after sa will be explained in the following section.

Sentences containing the above strings are shown in the tree structures below.



('The lecture is about nationalism.')



('The books are the student's.')

The Determiner in Relation to $Prep_m$ (Preposition Marker)

The Det_{sg} (determiner singular) is deleted after sa in the morphophonemics, i.e.:

ang _____ / sa --> ∅

ang manga _____ / sa --> ∅ manga

e.g.:

sa	+	ang	+	N	-->	sa	+ N
*sa		ang		bata	-->	sa	bata
$Prep_m$		Det_{sg}		'child'		('to/from/with the child')	

sa	+	ang	+	Pr_{dem}	-->	sa	+ Pr_{dem}
*sa		ang		iyon	-->	sa	iyon
$Prep_m$		Det_{sg}		'that'		(to/from/with that one')	

sa	+	ang	manga	+	N	-->	sa	+ manga + N
*sa		ang	manga		bata	-->	sa	manga bata
$Prep_m$		Det_{pl}			'child'		(to/from/with the children')	

The morphophonemics of determiners si and sina is different. These markers are replaced by kay and kina, respectively, thus:

si _____ / sa --> kay

sina _____ / sa --> kina

e.g.:

<u>sa</u>	+	<u>si</u>	+	Name	-->	<u>sa</u>	+ <u>kay</u>	+ Name
*sa		si		Pablo	-->	sa	kay	Pablo
$Prep_m$		Det_{sg}		'Pablo'		('to/from/with Pablo')		

<u>sa</u>	+	<u>sina</u>	+	Name	-->	<u>sa</u>	+ <u>kina</u>	+ Name
*sa		sina		Pablo	-->	sa	kina	Pablo
$Prep_m$		Det_{pl}		'Pablo'		('to/from/with Pablo and his friends')		

<u>The $Pr_{pos_{sg}}$ (possessive pronoun singular) and $Pr_{pos_{pl}}$ (possessive pronoun plural)</u>

We have already discussed the morphophonemics of $Pr_{per_{sg}}$ (personal pronoun singular) and $Pr_{per_{pl}}$ (personal pronoun plural) in commenting on Rule (7), Kernel 1 Rules, but we are listing the morphophonemic rule again because of its relevance in this discussion. $Pr_{pos_{sg}}$ (possessive pronoun singular) and $Pr_{pos_{pl}}$ (possessive pronoun plural) in Kernel 4 Rules are possible rewrites of NP_{sg} and NP_{pl}, in Rules (7) and (8), respectively.

The possessive form of the pronoun occurring immediately after <u>sa</u> is not really functioning as a possessive. The possessive is presented here as a trans-

form of the personal pronoun. The morphophonemic component is the following:

Singular:

ako 'I' ikaw 'you' siya 'he/she'	____ / sa -->	akin 'mine' iyo 'yours' kaniya 'his/hers'

Plural:

kami 'we' kayo 'you' sila 'they'	____ / sa -->	amin 'ours' inyo 'yours' kanila 'theirs'

Examples:

Para	sa	akin	ang	libro.
'for'	$Prep_m$	'mine'	Det_{sg}	'book'

('The book is for me.')

Ayon	sa	kaniya	si	Pablo.
'in accord with'	$Prep_m$	'his/hers'	Det_{sg}	'Pablo'

('Pablo is in accord with him.')

But in subject position, the possessive pronoun fulfills its function as a possessive.

Examples:

Para	sa	iyo	ang	akin.
'for'	$Prep_m$	'yours'	Det_{sg}	'mine'

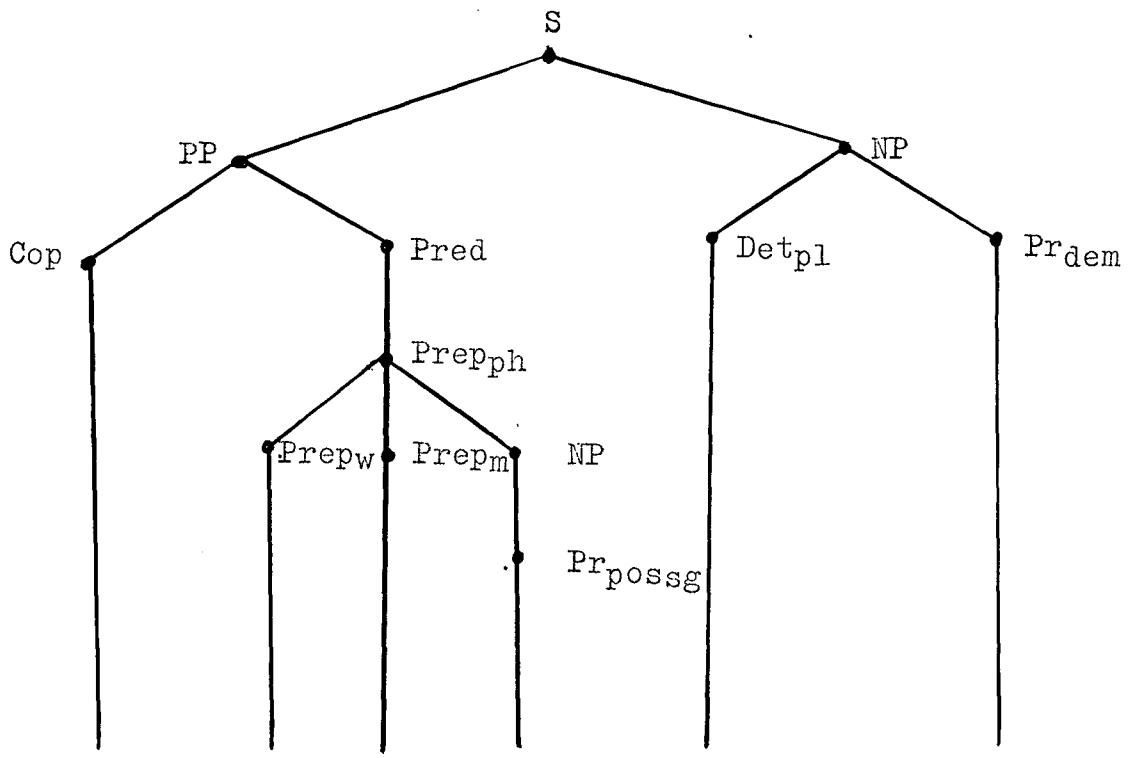
('Mine is for you.')

Sa inyo ang kanila.

$Prep_m$ 'yours (plural)' Det_{sg} 'theirs'

('Theirs is yours.')

A derivation would reduce to the following tree.



'for' $Prep_m$ 'mine' Det_{pl} 'that'

('Those are for me.')

COPULA KERNEL SENTENCE RULES

(1) $S \rightarrow PP + NP$

(2) $PP \rightarrow Cop + Pred$

(3) $Pred \rightarrow \left\{ \begin{matrix} D \\ NP \\ Prep_{ph} \end{matrix} \right\}$

(4) $Prep_{ph} \rightarrow (Prep_{w}) \quad Prep_{m} + NP$

(5) $D \rightarrow \left\{ \begin{matrix} Adj \\ Adv \end{matrix} \right\}$

(6) $Adv \rightarrow \left\{ \begin{matrix} Pla \quad (Tm) \quad \underline{\quad} \; / \; Cop \\ Prep_{m} + NP \quad (Tm) \\ Pla \quad (Tm) \\ Tm \end{matrix} \right\}$

(7) $NP \rightarrow \left\{ \begin{matrix} NP_{sg} \\ NP_{pl} \end{matrix} \right\} (S_{1})$

(8) $NP_{sg} \rightarrow \left\{ \begin{matrix} Det_{sg} \left\{ \begin{matrix} N \\ Name \end{matrix} \right\} \\ Pr_{per_{sg}} \\ Pr_{pos_{sg}} \\ Pr_{dem} \end{matrix} \right\}$

(9) NP_{pl} --> $\left\{ \begin{array}{l} Det_{pl} \left\{ \begin{array}{l} N \\ Name \\ Pr_{dem} \end{array} \right\} \\ Pr_{per_{pl}} \\ Pr_{pos_{pl}} \end{array} \right\}$

To Lexicon

(10) Cop --> ∅

(11) Det_{sg} --> $\left\{ \begin{array}{l} \underline{ang} \ / \ \_\_\_\_ \ N \\ \underline{si} \ / \ \_\_\_\_ \ Name \end{array} \right\}$

(12) Det_{pl} --> $\left\{ \begin{array}{l} \underline{ang\ manga} \ / \ \_\_\_\_ \left\{ \begin{array}{l} N \\ Pr_{dem} \end{array} \right\} \\ \underline{sina} \ / \ \_\_\_\_ \ Name \end{array} \right\}$

(13) $Prep_{m}$ --> sa

(14) Adj --> masipag 'industrious', maganda 'beautiful', maaga 'early'...

(15) Pla --> dito 'here', diyan 'there', doon 'there (yonder)'...

(16) Tm --> bukas 'tomorrow', kahapon 'yesterday', wala 'absent'...

(17) $Prep_{w}$ --> ayon 'in accord with', tungkol 'about', laban 'against'...

(18) $Pr_{per_{sg}}$ --> ako 'I', ikaw 'you', siya 'he/she'.

(19) $Pr_{per_{pl}}$ --> kami 'we - exclusive', tayo 'we - inclusive', sila 'they'.

(20) $Pr_{pos_{sg}}$ --> akin 'mine', iyo 'yours', kaniya 'his/hers'.

(21) $Pr_{pos_{pl}}$ --> amin 'ours', inyo 'yours', kala 'theirs'.

(22) Pr_{dem} --> ito 'this', iyan 'that', iyon 'that (yonder)'.

(23) N --> { bata 'child', estudyante 'student', lalaki 'man'... / libro 'book', kuwarto 'room', aso 'dog'... / damdamin 'feeling', pagibig 'love', galak 'joy'... }

BASE RULES OF TAGALOG KERNEL SENTENCES

(1) $S \rightarrow PP + NP$

(2) $PP \rightarrow \left\{ \begin{matrix} VP & (Adv) \\ Cop & + \quad Pred \end{matrix} \right\}$

(3) $VP \rightarrow \left\{ \begin{matrix} V_t & + & NP_o \\ V_i \end{matrix} \right\}$

(4) $NP_o \rightarrow n- + NP$

(5) $Pred \rightarrow \left\{ \begin{matrix} D \\ NP \\ Prep_{ph} \end{matrix} \right\}$

(6) $D \rightarrow \left\{ \begin{matrix} Adj \\ Adv \end{matrix} \right\}$

(7) $Adv \rightarrow \left\{ \begin{matrix} Pla \quad (Tm) \quad \underline{\quad} / Cop \\ Prep_m + NP \quad (Tm) \\ Pla \quad (Tm) \\ Tm \end{matrix} \right\}$

(8) $Prep_{ph} \rightarrow (Prep_w) \quad Prep_m + NP$

(9) $NP \rightarrow \left\{ \begin{matrix} NP_{sg} \\ NP_{pl} \end{matrix} \right\} (S_l)$

(10) $NP_{sg} \rightarrow \left\{ \begin{matrix} Det_{sg} \quad \left\{ \begin{matrix} N \\ Name \end{matrix} \right\} \\ Prper_{sg} \\ Prpos_{sg} \\ Pr_{dem} \end{matrix} \right\}$

(11) NP_{pl} --> { Det_{pl} { N / Name / Prdem } ; $Prper_{pl}$; $Prpos_{pl}$ }

(12) Vt --> { St_{t1} + -<u>um</u>- ; St_{t2} + <u>mag</u>- ; St_{t3} { -<u>um</u>- / <u>mag</u>- } } As

(13) Vi --> { St_{i1} + -<u>um</u>- ; St_{i2} + <u>mag</u>- ; St_{i3} { -<u>um</u>- / <u>mag</u>- } } As

(14) As --> { Com / Actl / Pro }

<u>To Lexicon</u>

(15) Cop --> ∅

(16) Det_{sg} --> { <u>ang</u> / _____ N ; <u>si</u> / _____ Name }

(17) Det_{pl} --> { <u>ang manga</u> / _____ { N / Prdem } ; <u>sina</u> / _____ Name }

(18) $Prep_m$ --> sa

(19) Adj --> masipag 'industrious', maganda 'beautiful', maaga 'early'...

(20) Pla --> dito 'here', diyan 'there', doon 'there (yonder)'...

(21) Tm --> bukas 'tomorrow', kahapon 'yesterday', wala 'absent'...

(22) $Prep_w$ --> ayon 'in accord with', tungkol 'about', laban 'against'...

(23) $Pr_{per_{sg}}$ --> ako 'I', ikaw 'you', siya 'he/she'.

(24) $Pr_{per_{pl}}$ --> kami 'we - exclusive', tayo 'we - inclusive', sila 'they'.

(25) $Pr_{pos_{sg}}$ --> akin 'mine', iyo 'yours', kaniya 'his/hers'.

(26) $Pr_{pos_{pl}}$ --> amin 'ours', inyo 'yours', kanila 'theirs'.

(27) Pr_{dem} --> ito 'this', iyan 'that', iyon 'that (yonder)'.

(28) St_{t_1} --> pili 'select/choose', hingi 'ask', pitas 'pick'...

(29) St_{t_2} --> bigay 'give', tanim 'plant', diwang 'celebrate'...

(30) St_{i1} --> tapang 'bravery', alis 'leave', ulan 'rain'...

(31) Sti_2 --> lingkod 'service/servant', sunda-lo 'soldier', bus 'bus'...

(32) Stt_3 --> basa 'read', bilang 'count', sulat 'write'...

(33) Sti_3 --> iwas 'evade/elude', iyak 'cry', tingala 'look upward'...

(34) N --> { bata 'child', estudyante 'student', lalaki 'man'... / libro 'book', kuwarto 'room', aso 'dog'... / damdamin 'feeling', pagibig 'love', galak 'joy'... }

CHAPTER III. TRANSFORMATIONS

We will now have a look at some simple transformations. In its operation, a transformation may perform one or more of the following:

1. It may rearrange elements in a string,
2. It may add elements to a string,
3. It may delete elements, and
4. It may combine two strings.

A transformational rule may be either (1) obligatory, or (2) optional.

Each transformational rule has two parts: (1) the structural description (S.D.), also called structural analysis, or structure index, and (2) structural change (S.C.). The structural description specifies the class of strings (in terms of their analysis by phrase markers) to which the rule applies. The structural change specifies the changes by means of variable signs.

Examples:

1. <u>Rearrangement</u> (Optional)

S.D.: V_t + NP_o + NP

Bumasa nang liksiyon ang estudyante.

'read' n- + Det_{sg} 'lesson' Det_{sg} 'student'

('The student read the lesson.')

S.C.: V_t + NP + NP_o

Bumasa ang estudyante nang liksiyon.

'read' Det_{sg} 'student' n- + Det_{sg} 'lesson'

('The student read the lesson.')

S.D.: V_t + NP_o + Adv + NP

Bumasa nang liksiyon kagabi ang estudyante.

'read' n- + Det_{sg} 'lesson' 'last night' Det_{sg} 'student'

('The student read the lesson last night.')

S.C.: V_t + Adv + NP_o + NP

Bumasa kagabi nang liksiyon ang estudyante.

'read' 'last night' n- + Det_{sg} 'lesson' Det_{sg} 'student'

('The student read the lesson last night.')

2. Addition (Optional)

S.D. (1): V_i + NP

Dumating ang propesor.

'arrived' Det_{sg} 'professor'

('The professor arrived.')

S.D. (2): Cop + Adj + NP

Cop maaga ang propesor.

Cop 'early' Det_{sg} 'professor'

('The professor is early.')

CONDITION: The two NP's must be identical.

S.C.: V_i + <u>n-</u> + <u>ang</u> + Adj + NP

Dumating nang maaga ang propesor.

'arrived' n- + Det_{sg} 'early' Det_{sg} 'professor'

('The professor arrived early.')

S.D.(1): Cop + NP_1 + NP_2

Where NP_1 is a Pronoun (singular or plural)

ø Siya ang titser.

Cop 'he/she' Det_{sg} 'teacher'

('He/she is the teacher.')

S.D.(2): Cop + Adj + NP

ø Mabait ang titser.

Cop 'kind' Det_{sg} 'teacher'

('The teacher is kind.')

S.C.: Cop + NP_1 + <u>na</u> + Adj + NP_2

ø Siya + na + mabait + ang + titser.

Siyang mabait ang titser.

'she' + <u>na</u> 'kind' Det_{sg} 'teacher'

('The teacher is the one who is kind.')

In the morphophonemics, whenever the structure marker <u>na</u> follows a word with final vowel, <u>na</u> becomes <u>-ng</u> and is attached to the word that it is following.

When following a word ending in the nasal consonant -n, the marker na transforms to -g and is attached to the word that it follows. e.g.:

siya + na + mabait --> siyang mabait

estudyante + na + mabait --> estudyanteng mabait

akin ('mine')+ na + libro --> aking libro

bayan ('country') + na + malaya ('free') --> bayang malaya

3. Deletion (Optional)

S.D.(1): V_i + NP

Tumakbo ang kabayo.

'ran' Det_{sg} 'horse'

('The horse ran.')

S.D(2): Cop + Adj + NP

Ø Mabilis ang kabayo.

Cop 'fast' Det_{sg} 'horse'

('The horse is fast.')

S.C.: Cop + Adj + (VP) + NP

Ø Mabilis ang kabayo.

Cop 'fast' Det_{sg} 'horse'

('The horse is fast.')

The native speaker implies VP ("ran") in this structure.

4. Combination (Optional)

S.D.(1): Cop + Adj + NP

Ø Mabait si Pablo.

Cop 'kind' Det_{sg} 'Pablo'

('Pablo is kind.')

S.D.(2): Cop + Adj + NP

Ø Masipag si Pablo.

Cop 'industrious' Det_{sg} 'Pablo'

('Pablo is industrious.')

CONDITION: The two NP's must be identical.

S.C.: Cop + Adj + at + Adj + NP

Ø Mabait at masipag si Pablo.

Cop 'kind' 'and' 'industrious' Det_{sg} 'Pablo'

('Pablo is kind and industrious.')

In the morphophonemics, at transforms to 't and is attached to the word it is following when such word ends with a vowel. e.g.: bata't matanda 'young and old'; kayo't ako 'you and I'.

The Pronoun Transformation

The pronoun in subject position is attracted by the Verb or Adverb in predicate position. This is an obligatory transform.

1. T-pr Transformation, Declarative and Imperative

a. Declarative (Obligatory)

S.D.: Cop + Adv_1 + Adv_2 + NP

Where NP is a Pronoun (singular and plural), and Adv_2 is Tm (time adverbial)

Narito bukas ako.

'here' 'tomorrow' 'I'

('I will be here tomorrow.')

S.C.: Cop + Adv_1 + NP + Adv_2

Narito ako bukas.

'here' 'I' 'tomorrow'

('I will be here tomorrow.')

S.D.: V_t + NP_o + NP

Bumasa nang liksiyon siya.

'read' n- + Det_{sg} 'lesson' 'he/she'

('He/she read the lesson.')

S.C.: V_t + NP + NP_o

Bumasa siya nang liksiyon.

'read' 'he/she' n- + Det_{sg} 'lesson'

('He/she read the lesson.')

S.D.: V_i + Adv + NP

Tumapang sa digmaan siya.

'became brave' $Prep_m$ 'war' 'he/she'

('He/she became brave in the war.')

S.C.: V_i + NP + Adv

Tumapang siya sa digmaan.

'became brave' 'he/she' $Prep_m$ 'war'

('He/she became brave in the war.')

b. Imperative (Optional)

S.D.: V_t + NP_o + NP

Bumasa nang liksiyon ikaw.

'read' n- + Det_{sg} 'lesson' 'you'

('You read the lesson.' or 'Read the lesson.')

S.C.: V_t + NP + NP_o

Bumasa ka* nang liksiyon.

'read' 'you' n- + Det_{sg} 'lesson'

('You read the lesson.' or 'Read the lesson.')

*Note that in this structure, the second person singular personal pronoun ikaw 'you' always changes to the short form ka 'you'.

S.D.: V_i + Adv + NP

Umiwas sa panganib kayo.

'keep away' $Prep_m$ 'danger' 'you'

('Keep away from danger.')

S.C.: V_i + NP + Adv

Umiwas kayo sa panganib.

'keep away' 'you' $Prep_m$ 'danger'

('Keep away from danger.')

Negation Transformation

Negation in Tagalog is expressed by the negative morpheme hindi 'no/not'. Hindi is sometimes shortened to di. The negative morpheme always precedes the head-word of the PP (predicate phrase). The string: V + NP_o + NP (e.g., Sentence: Bumasa nang liksiyon ang estudyante. 'The student read the lesson.') can be negated by adding hindi. The rule is:

PP + NP ==> hindi + PP + NP

T-neg (Optional)

S.D.: V_t + NP_o + NP

Bumasa nang liksiyon ang estudyante.

'read' n- + Det_{sg} 'lesson' Det_{sg} 'student'

('The student read the lesson.')

S.C.: Hindi + V_t + NP_o + NP

Hindi bumasa nang liksiyon ang estudyante.

'not' 'read' n- + Det_{sg} 'lesson' Det_{sg} 'student'

('The student didn't read the lesson.')

S.D.: Cop + Adj + NP

Maganda ang tanawin.

'beautiful' Det_{sg} 'view'

('The view is beautiful.')

S.C.: Hindi + Cop + Adj + NP

Hindi maganda ang tanawin.

'not' 'beautiful' Det_{sg} 'view'

('The view is not beautiful.')

S.D.: Cop + Adv + NP

Dito ang sayawan.

'here' Det_{sg} 'dancing'

('The dancing will take place here.')

S.C.: Hindi + Cop + Adv + NP

Hindi dito ang sayawan.

'not' 'here' Det_{sg} 'dancing'

('The dancing will not take place here.')

S.D.: Cop + NP_1 + NP_2

Ang estudyante ang sekretaryo.

Det_{sg} 'student' Det_{sg} 'secretary'

('The secretary is the student.')

S.C.: Hindi + Cop + NP_1 + NP_2

Hindi ang estudyante ang sekretaryo.

'not' Det_{sg} 'student' Det_{sg} 'secretary'

('The secretary is not the student.')

S.D.: Cop + $Prep_w$ + NP_1 + NP_2

Where NP_1 is a Pronoun (singular and plural)

Sangayon sa akin si Pablo.

'in accord with' $Prep_m$ 'mine' Det_{sg} 'Pablo'

('Pablo agrees with me.')

S.C.: Hindi + Cop + $Prep_w$ + NP_1 + NP_2

Hindi sangayon sa akin si Pablo

'not' 'in accord with' $Prep_m$ 'mine' Det_{sg} 'Pablo'

('Pablo does not agree with me.')

The Yes-No Interrogative Transformation

The question marker ba is always attracted to the headword in the PP (predicate phrase). T-ba applies directly to the derived string. The rule is:

V + X ==> V + ba + X

T-ba (Optional)

S.D.: V_t + NP_o + NP

Bumasa nang liksiyon ang estudyante.

'read' n- + Det_{sg} 'lesson' Det_{sg} 'student'

('The student read the lesson.')

S.C.: V_t + ba + NP_o + NP

Bumasa ba nang liksiyon ang estudyante.

'read' ba n- + Det_{sg} 'lesson' Det_{sg} 'student'

('Did the student read the lesson?')

S.D.: V_t + NP + NP_o

Bumasa ang estudyante nang liksiyon.

'read' Det_{sg} 'student' n- + Det_{sg} 'lesson'

('The student read the lesson.')

S.C.: V_t + ba + NP + NP_o

Bumasa ba ang estudyante nang liksiyon?

'read' ba Det_{sg} 'student' n- + Det_{sg} 'lesson'

('Did the student read the lesson?')

Copula structures are governed by the following rule:

$$Cop\begin{bmatrix} D \\ NP \\ Prep_W \end{bmatrix} \Longrightarrow Cop\begin{bmatrix} D \\ NP \\ Prep_W \end{bmatrix} ba$$

S.D.: Cop + Adj + NP

Maganda ang tanawin.

'beautiful' Det_{sg} 'view'

('The view is beautiful.')

S.C.: Cop + Adj + <u>ba</u> + NP

Maganda ba ang tanawin?

'beautiful' <u>ba</u> Det_{sg} 'view'

('Is the view beautiful?')

S.D.: Cop + Adv + NP

Dito ang sayawan.

'here' Det_{sg} 'dancing'

('The dancing will take place here.')

S.C.: Cop + Adv + <u>ba</u> + NP

Dito ba ang sayawan?

'here' <u>ba</u> Det_{sg} 'dancing'

('Will the dancing take place here?')

S.D.: Cop + NP_1 + NP_2

Ang estudyante ang sekretaryo.

Det_{sg} 'student' Det_{sg} 'secretary'

('The secretary is the student.')

S.C.: Cop + NP_1 + ba + NP_2

Ang estudyante ba ang sekretaryo?

Det_{sg} 'student' ba Det_{sg} 'secretary'

('Is the secretary the student?')

S.D.: Cop + $Prep_w$ + NP_1 + NP_2

Where NP_1 is a Pronoun (singular and plural), and NP_2 is Name

Sangayon sa akin si Pablo.

'in accord with' $Prep_m$ 'mine' Det_{sg} 'Pablo'

('Pablo agrees with me.')

S.C.: Cop + $Prep_w$ + ba + NP_1 + NP_2

Sangayon ba sa akin si Pablo?

'agree' ba $Prep_m$ 'mine' Det_{sg} 'Pablo'

('Does Pablo agree with me?')

The Negative-Interrogative Transformation

The negative-interrogative is a combination of T-neg and T-ba. It is necessary that T-neg must apply before T-ba can because the marker ba directly follows hindi except when the NP is ka, in which case the order is hindi + ka + ba. So the general rule is:

$$\text{Hindi} + \text{ba} \begin{Bmatrix} V \\ D \\ NP \\ Prep_{ph} \end{Bmatrix}$$

T-neg/ba (Optional)

S.D.: Hindi + V_t + NP_o + NP

Hindi bumasa nang liksiyon ang

'not' 'read' n- + Det_{sg} 'lesson' Det_{sg} estudyante.

'student'

('The student did not read the lesson.')

S.C.: Hindi + ba + V_t + NP_o + NP

Hindi ba bumasa nang liksiyon

'not' ba 'read' n- + Det_{sg} 'lesson' ang estudyante?

Det_{sg} 'student'

('Didn't the student read the lesson?')

S.D.: Hindi + Cop + Adj + NP

Hindi maganda ang tanawin.

'not' 'beautiful' Det_{sg} 'view'

('The view is not beautiful.')

S.C.: Hindi + ba + Cop + Adj + NP

Hindi ba maganda ang tanawin?

'not' ba 'beautiful' Det_{sg} 'view'

('Isn't the view beautiful?')

S.D.: Hindi + Cop + Adv + NP

Hindi dito ang sayawan.

'not' 'here' Det_{sg} 'dancing'

('The dancing will not take place here.')

S.C.: Hindi + ba + Cop + Adv + NP

Hindi ba dito ang sayawan?

'not' ba 'here' Det_{sg} 'dancing'

('Won't the dancing take place here?')

S.D.: Hindi + Cop + NP_1 + NP_2

Hindi ang estudyante ang sekretaryo.

'not' Det_{sg} 'student' Det_{sg} 'secretary'

('The secretary isn't the student.')

S.C.: Hindi + ba + Cop + NP_1 + NP_2

Hindi ba ang estudyante ang sekretaryo?

'not' ba Det_{sg} 'student' Det_{sg} 'secretary'

('Isn't the secretary the student?')

The Pronoun-Negative-Interrogative Transformation

The negative signal and the question marker behave differently in the environment of pronouns as a subset of NP in subject position. e.g.:

T-pr/neg/ba (Optional)

S.D.: V_t + NP_o + NP

Where NP is a Pronoun

Bumasa nang liksiyon siya.

'read' n- + Det_{sg} 'lesson' 'he/she'

('He/she read the lesson.')

T-neg

S.C.(1): Hindi + NP + V_t + NP_o

Hindi siya bumasa nang liksiyon.

'not' 'he/she' 'read' n- + Det_{sg} 'lesson'

('He/she didn't read the lesson.')

T-ba

S.C.(2): V_t + ba + NP + NP_o

Bumasa ba siya nang liksiyon?

'read' ba 'he/she' n- + Det_{sg} 'lesson'

('Did he/she read the lesson?')

T-pr/neg/ba

S.C.(3): Hindi + ba + NP + V_t + NP_o

Hindi ba siya bumasa nang liksiyon?

'not' ba 'he/she' 'read' n- + Det_{sg} 'lesson'

('Didn't he/she read the lesson?')

S.D.: V_i + Adv + NP

Where Adv is $Prep_m$ + NP

Naglingkod sa hukbo ka.

'served' $Prep_m$ 'army' 'you'

('You served in the army.')

T-neg

S.C.(1): Hindi + NP + V_i + Adv

Hindi ka naglingkod sa hukbo.

'not' 'you' 'served' $Prep_m$ 'army'

('You did not serve in the army.')

T-ba

S.C.(2): V_i + NP + ba + Adv

Naglingkod ka ba sa hukbo?

'served' 'you' ba $Prep_m$ 'army'

('Did you serve in the army?')

T-pr/neg/ba

S.C.: Hindi + NP + ba + V_i + Adv

Hindi ka ba nanglingkod sa hukbo?

'not' 'you' ba 'served' $Prep_m$ 'army'

('Didn't you serve in the army?')

The 'ay' Inversion Transformation

All basic structures may undergo a T-ay transformation. This transformation permutes the two

parts of the sentence (PP + NP), i.e., transfers the NP to the PP position, and the PP to the NP position. A construction marker ay is added to the PP to mark the permutation. This is an optional transform, seldom used in colloquial speech. Whenever used, it transfers emphasis to the first element. The rule is:

PP + NP ==> NP + ay + PP

T-ay (Optional)

S.D.: V_t + NP_o + NP

Babasa nang liksiyon ang estudyante.

'Will read' n- + Det_{sg} 'lesson' Det_{sg} 'student'

('The student will read the lesson.')

S.C.: NP + ay + V_t + NP_o

Ang estudyante ay babasa nang

Det_{sg} 'student' ay 'will read' n- + Det_{sg}

liksiyon.

'lesson'

('The student will read the lesson.')

S.D.: Cop + Adj + NP

Maganda ang tanawin.

'beautiful' Det_{sg} 'view'

('The view is beautiful.')

S.C.: NP + <u>ay</u> + Cop + Adj

Ang tanawin ay maganda.

Det_{sg} 'view' <u>ay</u> 'beautiful'

('The view is beautiful.')

S.D.: Cop + Adv + NP

Dito ang sayawan.

'here' Det_{sg} 'dancing'

('The dancing will take place here.')

S.C.: NP + <u>ay</u> + Cop + Adv

Ang sayawan ay dito.

Det_{sg} 'dancing' <u>ay</u> 'here'

('The dancing will take place here.')

S.D.: Cop + NP_1 + NP_2

Ang estudyante ang sekretaryo.

Det_{sg} 'student' Det_{sg} 'secretary'

('The secretary is the student.')

S.C.: NP_2 + <u>ay</u> + Cop + NP_1

Ang sekretaryo ay ang estudyante.

Det_{sg} 'secretary <u>ay</u> Det_{sg} 'student'

('The secretary is the student.')

S.D.: Cop + $Prep_{ph}$ + NP

Where $Prep_{ph}$ is $Prep_m$ + NP, and NP is Det + Name

Sangayon sa akin si Pablo.

'in accord with' $Prep_m$ 'mine' Det_{sg} 'Pablo'

('Pablo agrees with me.')

S.C.: NP + ay + Cop + $Prep_{ph}$

Si Pablo ay sangayon sa akin.

Det_{sg} 'Pablo' ay 'in accord with' $Prep_m$ 'mine'

('Pablo agrees with me.')

In this transformation, the arrangement of the elements in each unit of the sentence is not altered. One morphophonemic rule must be remembered in T-ay transform. Whenever ay follows N (noun), Pr (personal pronoun, and demonstrative pronoun), Adj (adjective), or Adv (adverb or adverbial) that ends with a vowel, ay is contracted to 'y and attached to the form-class that 'y is following. e.g.:

Ako'y aalis.

('I will leave.')

Kami'y dalawa.

('We were two.')

The same process occurs also in cases where the preceding form-class ends in the nasal consonant -n, but in such

case the -n is replaced by the contracted shape of ay, i.e., 'y, e.g.:

ang + bayan + ay + umaasa --> ang baya'y umaasa
('the people are hoping')

alinman + ay + maaari --> alinma'y maaari
('anything will do')

The -in- Passive Transformation (Optional)

The -in- (so-called "passive") transformation applies to sentences with -um- verbs and mag-verbs.

T-V_t -in-

$$\text{S.D.: } \overbrace{St_t \left\{ \begin{matrix} \text{-um-} \\ \text{mag-} \end{matrix} \right\} As}^{V_t} + \overbrace{n- + NP_1}^{NP_o} + NP_2$$

Pumili nang libro ang estudyante.
'chose' n- + Det_{sg} 'book' Det_{sg} 'student'
('The student chose a book.')

S.C.: St_t + -in- + As + n- + NP_2 + NP_1

Pinili nang estudyante ang libro.
'chose' n- + Det_{sg} 'student' Det_{sg} 'book'
('The book was chosen by the student.')

Assuming that NP is Det_{sg} + Name, i.e.,

Pumili nang libro si Pablo.
('Pablo chose a book.')

the transformation will be:

S.C.: St_t + -in- + As + n- + NP_2 + NP_1

Pinili ni Pablo ang libro.

'chose' n- + Det_{sg} 'Pablo' Det_{sg} 'book'

('The book was chosen by Pablo.')

S.D.: $\overbrace{St_t \left\{ \begin{matrix} \text{-um-} \\ \text{mag-} \end{matrix} \right\} As}^{V_t} + \overbrace{n + NP_1}^{NP_o} + NP_2$

Nagtanim nang rosas ang dalaga.

'planted' n- + Det_{sg} 'rose' Det_{sg} 'young woman'

('The young woman planted the rose.')

S.C.: St_t + -in- + As + n- + NP_2 + NP_1

Itinanim* nang dalaga ang rosas.

'planted' n- + Det_{sg} 'young woman' Det_{sg} 'rose'

('The rose was planted by the young woman.')

Three things happen in an -in- transformation:

(1) NP_o and NP are permuted,

(2) -um- and mag- formatives are changed to -in- formative,

*This verb has two formatives, i-, and -in-. The i- formative is a derivative of -in-.

(3) the n- marker is not carried by the NP_o.

The morphophonemic rules involved are:

n- + ang --> nang

n- + si --> ni

The As (aspect) of the verb in the kernel is carried through to the transform.

T-V_i-in-

In the -in- (so-called "passive") transformation of the V_i (intransitive verb), the rule changes:

(1) the -um- formative to -in- formative,

(2) the $Prep_m$ (preposition marker) sa in the adverbial phrase to nang, i.e., n- + ang. No units or elements are permuted. The As (aspect) of the verb in the kernel is carried through to the transform.

	V_i			+	Adv			+	NP
S.D.:	St_i	+	-um- + As	+	$Prep_m$	+	NP_1	+	NP_2
	Tumapang		sa		digmaan		ang		lalaki.
	'became brave'		$Prep_m$		'war'		Det_{sg}		'man'

('The man became brave in the war.')

S.C.: St_i + -in- + As + n- + NP_1 + NP_2

Pinatapang nang digmaan ang lalaki.

'made brave' n- + Det_{sg} 'war' Det_{sg} 'man'

('The man was made brave by the war.')

The verb pinatapang ('made brave') in the preceding sentence contains the formatives pa-, and -in-. The pa- formative, which is dependent on -in-, is a derivation of the latter formative.

Not all -um- intransitive verbs permit -in- transformation. For instance:

Umalis ang lalaki.
'went away' Det_{sg} 'man'
('The man went away.')

will not transform to:

*Inalis nang lalaki.

Umiiyak ang babae.
'crying' Det_{sg} 'woman'
('Tht woman is crying.')

will not transform to:

*Iniiyak nang babae.

Tumingala si Pablo.
'looked upward' Det_{sg} 'Pablo'
('Pablo looked upward.')

will not transform to:

*Tiningala ni Pablo.

The intransitive verb with mag- formative appears not to allow -in- transformation. For example:

Naglingkod sa hukbo ang binata.
'served' $Prep_m$ 'army' Det_{sg} 'young man'
('The young man served in the army.')

will not transform to:

*Liningkod nang binata ang hukbo.

Nagsundalo siya.
'performed the acts of a soldier' 'he/she'
('He performed the acts of a soldier.')

will not transform to:

*Sinundalo niya.

Nagbus si Pablo.
'took the bus/ rode in a bus' Det_{sg} 'Pablo'
('Pablo took the bus.')

will not transform to:

*Binus ni Pablo.

Manner Adverbial Transformation

The manner adverbial is an adjective from Cop + Adj + NP construction that is conjoined to

a basic sentence by means of the construction marker nang, i.e., n- + ang.

T-man (Optional)

S.D.(1): V_i + NP

Dumating ang propesor.

'arrived' Det_{sg} 'professor'

('The professor arrived.')

S.D.(2): Cop + Adj + NP

Maaga ang propesor.

'early' Det_{sg} 'professor'

('The professor is early.')

S.C.: V_i + n- + ang + Cop + Adj + NP

Dumating nang maaga ang propesor.

'arrived' n- + ang 'early' Det_{sg} 'professor'

('The professor arrived early.')

A verb or verbal may also transform to a manner adverbial, but before transformation can apply, the verb or verbal being made an adverbial must first undergo an elementary transformation, i.e., it must be transformed to an adjectival.

S.D.(1): V_i + NP

Lumakad ang bata.

'walked' Det_{sg} 'child'

('The child walked.')

S.D.(2): V_i + NP

Tumakbo ang bata.

'ran' Det_{sg} 'child'

('The child ran.')

The verb tumakbo ('ran') must undergo a transformation to adjectival.

S.C of (2): Adj + NP

Patakbo ang bata.

'running-like' Det_{sg} 'child'

('The child is running-like.')

Now, the manner adverbial transformation will apply to the last structure above.

S.C.: V_i + n- + ang + Adj + NP

Lumakad nang patakbo

'walked' n- + Det_{sg} 'running-like'

ang bata.

Det_{sg} 'child'

('The child walked as if he were running.')

The Indirect Object Transformation

The structure with an indirect object is derived from two kernel sentences: (1) the sentence that contains a direct object, i.e., V_t + NP_o + NP, and (2) the sentence with the structure Cop + $Prep_{ph}$ + NP. All

indirect objects are introduced by the $Prep_w$ (preposition word) para plus $Prep_m$ sa, i.e., para sa. In the morphophonemics, the determiner ang is deleted, and the determiner si is replaced by kay (for singular) or kina (for plural), as the case may be.

T-io (Optional)

S.D.(1): V_t + NP_o + NP_2

n- + NP_1

Where NP_2 is Name

Bumili nang libro si Pablo.

'bought' n- + Det_{sg} 'book' Det_{sg} 'Pablo'

('Pablo bought a book.')

S.D.(2): Cop + $Prep_{ph}$ + NP

$Prep_w$ + $Prep_m$ + NP_1

Para sa kay Maura ang libro.

'for' $Prep_m$ Det_{sg} 'Maura' Det_{sg} 'book'

('The book is for Maura.')

S.C.: V_t + n- + NP_o + NP_2 + $Prep_{ph}$ + NP_1

Where NP_1 and NP_2 are Names

Bumili nang libro si Pablo

'bought' n- + Det_{sg} 'book' Det_{sg} 'Pablo'

(Cont.)

para sa kay Maura.

'for' $Prep_m$ Det_{sg} 'Maura'

('Pablo bought a book for Maura.' or,

'Pablo bought Maura a book.')

Nominalization Transformation

A Nom (nominal) may be a form-class to which a Det_{sg}, ang, or Det_{pl}, ang manga is anteponed; or a sentence (S_1) that is related to the base sentence by a construction relator marker, na. The ang or ang manga, as the case may be, may or may not occur between the relator marker na, and the initial word of the sentence that is being related to the base sentence.

The nominalized form-classes are parts of deleted units of the structure from which nominalized form-classes are derived. e.g.:

* Si Pablo ang nagbus si

Det_{sg} 'Pablo' Det_{sg} 'rode in a bus' Det_{sg}

Pablo.

'Pablo'

('It's Pablo who rode in a bus it's Pablo.')

*Siya ang maganda <u>siya</u>.
'he/she' Det_{sg} 'beautiful' 'he/she'
('She is beautiful she.!).'

*Mahalaga ang ngayon <u>ang</u> <u>mahalaga</u>.
'important' Det_{sg} 'today/present' Det_{sg} 'important'
('It's the present that is important that
is important.')

*Iyan ang akin <u>iyan</u>.
'that' Det_{sg} 'mine' 'that'
('That's what is mine that.')

*Ang bayan ang laban
Det_{sg} 'people' Det_{sg} 'against'
sa Presidente <u>ang</u> <u>bayan</u>.
$Prep_{m}$ 'President' Det_{sg} 'people'
('The people are against the President
the people.')

The underlined strings are obligatorily deleted in the transformation, resulting in a Nom (nominal) form-class, as:

$$\underline{\text{ang}} \left\{ \begin{array}{l} \text{V} \\ \text{Adj} \\ \text{Adv} \\ \text{Pr} \end{array} \right\}$$

Nominalization of the sentence (S_1) will not be treated in this study.

T-nom Form-Class (Optional)

S.D.: V_i + NP

Where NP is Name

Nagbus si Pablo.

'took the bus/
rode in a bus' Det_{sg} 'Pablo'

('Pablo rode in a bus.')

S.C.: NP + Det_{sg} + V

Si Pablo ang nagbus.

Det_{sg} 'Pablo' Det_{sg} 'took the bus/
rode in a bus'

('It is Pablo who rode in a bus.')

S.D.: Cop + Adj + NP

Maganda siya.

'beautiful' 'he/she'

('She is beautiful.')

S.C.: NP + Det_{sg} + Adj

Siya ang maganda.

'he/she' Det_{sg} 'beautiful'

('She is the one who is beautiful.')

S.D.: Cop + Adv + Det_{sg} + Adj

Where Adv is Tm (time adverbial)

Ngayon ang mahalaga.

'today' Det_{sg} 'important'

('Today is important.')

S.C.: Adj + Det_{sg} + Adv

Mahalaga ang ngayon.

'important' Det_{sg} 'today'

('Today is important.')

This particular nominalization transformation shows that time adverbial must co-occur with nominal as subject. In other words, this transform uses a transform that has undergone a transformational cycle.

S.D.: Cop + NP_1 + NP_2

Where NP_1 is a Pr_{pos} (posessive pronoun),

and NP_2 is a Pr_{dem} (demonstrative pronoun)

Akin iyan.

'mine' 'that'

('That is mine.')

S.C.: NP_2 + Det_{sg} + Pr_{pos}

Iyan ang akin.

'that' Det_{sg} 'mine'

('That which is mine is that.')

S.D.: Cop + $Prep_{ph}$ + NP

$Prep_w$ + $Prep_m$ + NP_l

Laban sa Presidente ang bayan.

'against' $Prep_m$ 'President' Det_{sg} 'people'

('The people are against the President.')

S.C.: NP + Det_{sg} + $Prep_{ph}$ + NP_l

Ang bayan ang laban sa

Det_{sg} 'people' Det_{sg} 'against' $Prep_m$

Presidente.

'President'

('It's the President whom the people are against.')

CHAPTER IV. CONCLUSION

Summary

This study has accomplished its primary aims, namely: (1) the formulation of the basic finite rules that operate in the generation of an infinite number of Tagalog sentences, (2) the demonstration of the most common transforms in the language, and (3) the construction of a basis for a more detailed study of Tagalog syntax.

Findings and Observations

This study has revealed:

(1) that the verbal stem and the formatives -um- or mag- are grammatically related;

(2) that the morpheme n- is a structure marker that is essential in the grammar;

(3) that the following may be produced by highly regular transformation rules:

(a) the indirect object;

(b) the ay inverse structure;

(c) the -in- sentences from base sentences with -um- and mag- formatives;

(d) the manner adverbial; and

(e) the nominal;

(4) that Cop (copula) is a symbol that underlies kernel sentences 2, 3, and 4;

(5) that the -in- formative is an indicator of passivization of sentences with verbs occurring with -um- or mag- formatives;

(6) that certain -um- transitive verbs do not permit -in- transformation; and

(7) that mag- intransitive verbs appear not to allow -in- transformation.

Recommendations

It is suggested:

(1) that further study be made of the following:

(a) verbs and verbals, to find out whether the choice of verbs and verbals in the lexicon is influenced by the environment, and thereby the verbs and verbals may be sub-classified if necessary;

(b) adverbs and adverbials, to find out whether there is further need for classifying and sub-classifying them;

(2) that a study be made of the nouns, to find out whether they influence the choice of verb or object noun, and on what grammatical basis the classification of nouns must be made;

(3) that besides the formatives -um- and mag-, other formatives, principal or derived, be studied further, to find out the grammatical relations existing, if any, between these formatives and the transformation -in- passive, as well as its derivatives;

(4) that further study be made on recovery rules that seem to bring to the surface an obligatorily deleted unit in the structure to which the -in- passive transformation applies;

(4) that further study be made on nominalization, especially as they involve S_1.

The Summing Up. This presentation of Tagalog transformational syntax has also accomplished other tasks: the testing of the effectiveness of transformational-generative theory as applied to Tagalog, and the building of a foundation for future Tagalog transformational-generative syntactic descriptions. More than ever, I am convinced of the simplicity, explicitness,

explanatory power and insightful assertions about language of the theory of transformational-generative grammar.

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APPENDIX

A. VOCABULARY SYMBOLS

Other than lexical morphemes, the following are the vocabulary symbols used in this study.

Actl = actual

Adj = adjective, adjectival

Adv = adverb, adverbial

As = aspect

/C/ = consonant

Com = completed aspect

Cop = copula

D = descriptive

Det = determiner

N = noun

Name = name of person

Nom = nominal

NP = noun phrase

NP_o = noun phrase object

Pl = plural

Pla = place adverbial

PP = predicate phrase

Pr_{dem} = demonstrative pronoun

Pr_{per} = personal pronoun

Pr_{pos} = possessive pronoun

Pred = predicate

$Prep_{m}$ = preposition marker

$Prep_{ph}$ = prepositional phrase

$Prep_{w}$ = preposition word

Pro = proposed aspect

S = sentence

Sg = singular

St = verb stem

St_{i_1} = intransitive verb stem that takes -um- formative

St_{i_2} = intransitive verb stem that takes mag- formative

St_{i_3} = intransitive verb stem that takes either -um- or mag- formative

St_{t_1} = transitive verb stem that takes -um- formative

St_{t_2} = transitive verb stem that takes mag- formative

St_{t_3} = transitive verb stem that takes either -um- or mag- formative

Tm = time adverbial

/V/ = vowel

V_i = intransitive verb

V_t = transitive verb

VP = verb phrase

B. SPECIAL SYMBOLS

\+ The plus sign is used to symbolize the operation of concatenation and indicates the boundaries of the symbols in a string; it indicates where the symbols bounded by the plus sign begin and end and that they form a string.

--> An arrow indicates the operation of rewriting, i.e., that the string on the left of the arrow is to be rewritten as the string on the right. In addition, the arrow indicates the relation of the string on the left to the string on the right.

( ) Parentheses are used to abbreviate the listing of, or to conflate, two or more rules which are identical except for the optional additional occurrence of one or more symbols.

==> A double arrow is used in transformational rules.

$\left\{\ \right\}$ A brace is used to conflate two or more rules which are identical except for one symbol or a sequence of symbols which always occurs in the same position. Example:

$$A \longrightarrow \left\{\begin{matrix} B \\ C \end{matrix}\right\} \quad \text{or} \quad A \longrightarrow \{B,\ C\}$$

This means that alternative replacements for a symbol, one of which but not both must be chosen at a single application, are listed vertically or horizontally within braces and separated by commas. The latter notation is useful as a space-saving device where long lists, as of lexical items, are given. Where there is no danger of confusion the braces are often omitted around a horizontal listing.

$[\ ][\ ]$ A square bracket is used to abbreviate the listing of two or more rules pertaining to strings which are different and identical in the same places. These rules must differ in at least two places, so that at least two pairs of brackets must appear in the conflated rule. The symbols which are different are placed

vertically and enclosed in brackets, and the rule thus conflated is read across by lines; for example, the rule

$$\begin{bmatrix} A \\ B \end{bmatrix} C + X \Longrightarrow \begin{bmatrix} a \\ b \end{bmatrix} C + X$$

conflates the two rules:

$$A + C + X \Longrightarrow a + C + X$$

$$B + C + X \Longrightarrow b + C + X$$

and specifies that a different change applies to A than applies to B when each is followed by C + X; in other words, the conflated rules specifies two changes which occur in the same environment.

* An asterisk appearing at the beginning of a sentence indicates that the structure is ungrammatical.

... Three dots after a series of symbols represent the missing symbols, that is, the other possible entries in the series.

/ / Two slashes enclose phonemic symbols.

$\emptyset$ This symbol means zero.

/___ This notation means "in the environment of"; sometimes the shape is ___ /.