

SOME TRANSFORMATIONAL RULES FOR NOUN DERIVATION IN TAGALOG

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1. INTRODUCTION

There are evident syntactic and morphological relationships between certain phrases that function as nominals and certain types of sentences in Tagalog. These relationships form the basis of an analysis in which the derivation of these nominal phrases in a transformational grammar involves sentence embedding. Examples of such phrases and the sentences to which they may be said to be related are given below:

- (1) *ang pagdating ni Juan*
 'arrival'
 'Juan's arrival'
 cf. *Dumating si Juan.*
 'Juan arrived.'
- (2) *ang kabutihan niya sa akin.*
 'kindness' 'he/she' 'I'
 'his/her kindness towards me'
 cf. *Mabuti siya sa akin.*
 'He/She is kind to me.'

This paper will attempt to account for the way the bold-faced phrases and certain other types of phrases that occur as nominals (e.g., functioning as subjects, etc.) are formed and for the way they are semantically interpreted, using the model of transformational grammar presented by Noam Chomsky in *Aspects of the Theory of Syntax* (1965). In this conception of grammars of natural languages, each sentence of a language has a surface structure which receives a phonological interpretation and a deep structure which receives a semantic interpretation. (Chomsky 1965:15).

2. SOME BASE RULES

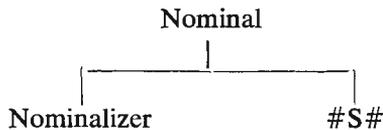
2.1. The following sequence of base rules generate the **basis** or base phrase marker of a Tagalog sentence. (Chomsky 1965: 17).

- B-1. $S \rightarrow$ Predicate phrase (Substantive phrase)
 (Adverb)

- B-2. Substantive phrase \rightarrow Relation marker + Nominal phrase
 B-3. Nominal phrase \rightarrow Nominal marker + Nominal (#S#)
 B-4. Nominal \rightarrow $\left\{ \begin{array}{l} \text{(Nominalizer) \#S\#} \\ \text{Noun} \\ \text{Pronoun} \\ \text{Demonstrative} \\ \text{PRO} \end{array} \right\}$

The four rules above generate the common basis of the **derived nominals** (i.e., the derived nouns and their complements) which are discussed in this paper. The term **derived noun** will be used to refer to the morphological construct in the surface structure consisting of the nominalizing affix (the “**Nominalizer**” in rule B-4) and the word base from the embedded sentence. For example, the derived noun *pagdating* in sentence (1) above consists of the nominalizer *pag-* and the verb base *dating* (cf., *dumating* in the related sentence). Certain constituents occurring with the word formed by the base in the embedded sentence are carried over into the surface structure as complements of the derived noun. Thus, in example (2), *sa akin* is the substantive phrase which functions as the complement of *mabuti*. This and the third person pronoun which expresses the subject are complements of the derived noun *kabutihan*. Derived nouns differ from true nouns (or, more precisely, noun bases), since unlike the latter, they are not inherently specified for such features as animateness, co-occurrence with the personal name marker *si*, countability, abstractness, and others. Figure 1 shows the common basis of these derived nouns.

Fig. 1. The common basis of derived nouns.



The discussion in this paper will be limited to the derived nominals formed by the nominalizers listed in rule B-5.

- B-5. Nominalizer \rightarrow $\left\{ \begin{array}{l} \text{PAG(KA)-} \\ \text{-AN} \\ \text{-IN} \\ \text{TAGA-} \\ \text{KA- . . . -AN} \\ \phi \end{array} \right\}$

For purposes of this paper, the predicate phrase is developed into a verb phrase or an adjective phrase, (although there are various other structures besides these which form predicate phrases in Tagalog), since these two types of

predicate phrases form the embedded sentences that occur with the nominalizers listed above.

B-6. Predicate phrase \rightarrow $\left\{ \begin{array}{l} \text{Adjective phrase} \\ \text{Verb phrase} \end{array} \right\}$

(The notation “. . .” in this and other rules indicates the presence of other structures not specified.)

2.2. In many sentences, the substantive phrase generated by rule B-1 (to be referred to as the **primary** substantive phrase) is also the surface subject of the sentence, and as such it gets the relation marker *ang*. In other sentences, a substantive phrase from some other category, such as Verb Phrase or Adjective Phrase, may get this relation marker and therefore become the surface subject. The selection of the surface subject in sentences formed by verbs is further discussed in subsection 2.6 below in connection with the component of focus in the verbal affix.

2.3. The following rules further develop the other classes of nominals besides the derived nominals (see rule B-4).

B-7. Noun \rightarrow (Affix) Noun base

B-8. Nominal marker \rightarrow Number (*si*)

B-9. Number \rightarrow [\pm Plural]

B-10. Noun base \rightarrow [$+$ NB, \pm *si* —]

B-11. [$-$ *si* —] \rightarrow [\pm Affix —; \pm Animate;
 \pm Count; \pm Abstract]

B-12. Pronoun \rightarrow [\pm Third person]

B-13. [$-$ Third person] \rightarrow [\pm Speaker]

B-14. [$+$ Speaker] \rightarrow [\pm Hearer]

B-15. Demonstrative \rightarrow [\pm Near speaker]

B-16. [$-$ Near speaker] \rightarrow [\pm Near hearer]

Rule B-7 provides the deep structures of nouns analyzable into affix and noun base, but which do not show evidence of derivation from embedded sentences, at least in a synchronic analysis of the language. Thus, for example, the noun *himutok* ‘sigh’ may be analyzed as consisting of the affix *hing-* (which also occurs in *hinaing* ‘complaint’ and *hinayang* ‘regret for something lost’) and the base *putok* ‘explosion’. The prefix *hing-* is no longer productive of new forms in the language. Another example of a noun formed by B-7 is *kagawaran* ‘governmental department’ (from *kagawad* ‘official’ + *-an*) and *kalihim* ‘secretary’ (cf., *lihim* ‘secret’). Recent coinages apparently formed by analogical extension of surface forms belong to this group (example: *kabatas* ‘policeman’ —cf., *batas* ‘law’).

With the exception of pronouns and some nominals derived from pluralized verbs, pluralization is indicated in the nominal marker rather than in the nominal itself, hence rules B-8 and B-9. The particle *si* is the nominal marker

for personal names (or personal name marker). As B-10 indicates, the nouns are specified for co-occurrence with this marker (examples: *Juan*, [+ *si*—]; *Maynila* 'Manila', [- *si* —]; *bahay* 'house', [- *si* —]).

The feature choices for the Tagalog singular pronouns given in rules B-12 through B-14 may be diagrammed in the form of alternative paths (see Figure 2). The choice /± Hearer/ has disappeared from Manila Tagalog but it is still present in certain other dialects of the language. Figure 3 shows the Tagalog demonstratives.

Fig. 2. The singular personal pronouns.

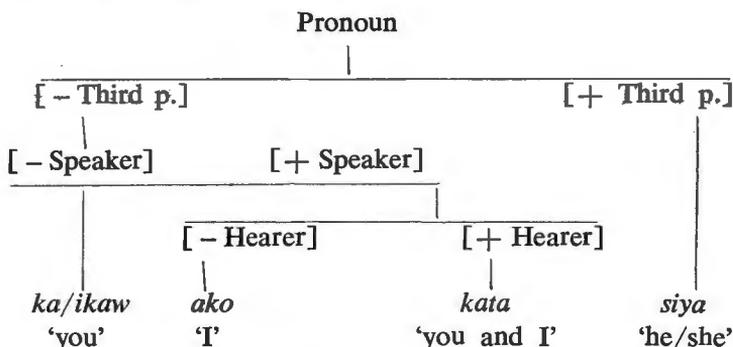
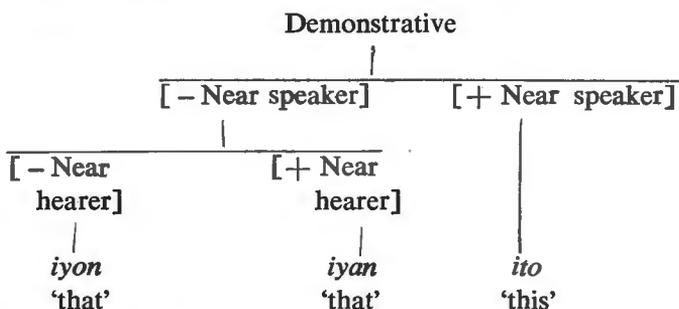


Fig. 3. The Tagalog demonstratives.



2.4. The following base rules generate the first few substrings in the verb phrase.

B-17. Verb phrase → Verb (Substantive phrase)
(Substantive phrase) (Adverbial complement)

B-18. Verb → Affix $\left\{ \begin{array}{l} \text{Verb base} \\ \left\{ \begin{array}{l} -ging \\ pa- \end{array} \right\} \#S\# \end{array} \right\}$

B-19. Affix → (Aspect) Focus (Mode)

B-20. Aspect → [± Initiated]

B-21. [+ Initiated] → [± Completed]

B-22. [+ Completed] → [± Recent]

B-23. Focus → (Secondary F) Major F

B-24. Major F → [± Actor]

B-25. [- Actor] → [± Object]

B-26. Adverbial complement → (Preposition) Substantive phrase

B-27. Derived F → $\left\{ \begin{array}{l} [+ \text{ Benefactive}] \\ [+ \text{ Causative}] \\ [+ \text{ Locative}] \end{array} \right\}$

B-28. Preposition → $\left\{ \begin{array}{l} [+ \text{ Benefactive}] \\ [+ \text{ Causative}] \end{array} \right\}$

2.5. Aspect is illustrated in Figure 4, which shows the inflected forms of *magsalita* 'speak'. The uninflected form is generated in the surface structure when the aspect component of the affix is not chosen in the deep structure. The feature [- Recent] does not indicate remoteness in time but rather a lack of explicitness as to recent completion. Compare:

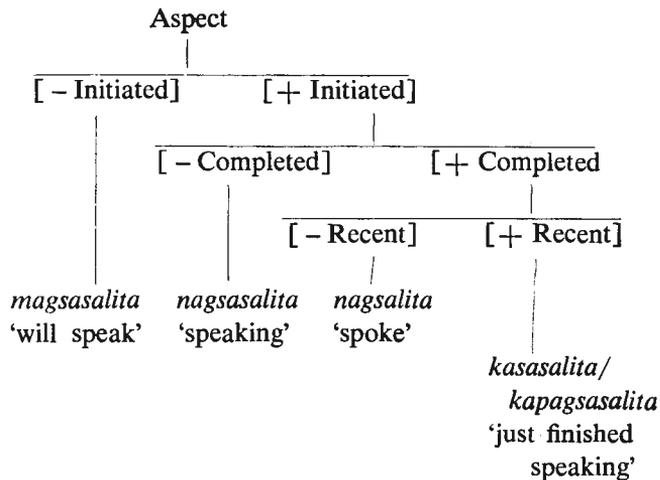
(1) *Nagsalita si Juan.*

'Juan spoke.'

(2) *Kasasalita lang ni Juan.*

'Juan has just finished speaking.'

Fig. 4. Feature choices for aspect.



2.6. Focus determines the semantic component (i.e., actor, object, directional goal, beneficiary of action, cause, etc.) to be expressed as the surface subject, or, viewed in another way, determines the interpretation of the substantive phrase marked by *ang* or its variants. The following terms will be used to represent the three major focuses: **actor-focus** ([+ Actor]); **object-focus** ([- Actor, + Object]); and **directional-focus** ([- Actor, - Object]). These

terms will be applied to the affixes expressing these focuses as well as to the verbs and sentence structures formed by the verbs. Examples of sentences with these three focuses are the following (surface subjects underscored):

(1) Actor-focus:

Bumili ng bahay sa akin si Juan.

'bought' 'house' 'I'

'Juan bought a house from me.'

(2) Object-focus:

Binili ni Juan sa akin ang bahay.

'bought' 'I' 'house'

'Juan bought a house from me.'

(3) Directional-focus:

Binilhan ako ni Juan ng bahay.

'bought' 'I' 'house'

'Juan bought a house from me.'

The relation markers signal the function of a substantive phrase (see T-1 through T-3, subsection 3.2 below.) In the case of pronouns and demonstratives, the forms in the surface structure change to signal the function; these changes in form are here considered to be the result of the presence of particular relation markers in the (derived) underlying structure or derived phrase marker. The personal-name marker *si* similarly changes its form in the surface structure, depending on the presence of particular relation markers. (Note *si Juan* and *ni Juan*, *akin* and *ko* in examples (1) — (3) above.)

The secondary focuses take as their surface subjects nominals that occur as constituents of the Adverbial Complement (see B-17). Essentially, a sentence with a secondary focus is generated when an adverb is chosen such that the semantic function of the adverb is identical to that of the secondary focus. Thus, if a causative-focus affix is chosen in the verb phrase, and an adverb of cause is chosen (see rule B-26 and B-27), the nominal in the adverb gets marked by the relation marker *ang* and becomes the surface subject, as in the following example:

(4) *Ikinalulungkot niya ang balita.*

'causes sadness' 'he' 'news'

'The news makes him sad.'

If some other focus is chosen such that there is no identity in the semantic interpretation of the verb and the adverb, the latter has to be introduced by the appropriate preposition unless it is a locative adverb, in which case only a substantive phrase introduced by *sa* occurs. An example of a sentence with a causative adverb is the following, formed by an actor-focus verb:

(5) *Nalulungkot siya dahil sa balita.*

'is sad' 'he' 'because of' 'news'

'He is sad because of the news.'

2.7. In addition to constituents expressing the aspect and focus of the verb, there are other components of the verbal affix expressing various modifications of the basic meaning expressed by the focus and the verb base. These components are represented by the category Mode (see rule B-19). Examples of modal affixes are the plural affix *si-* as in *magsibili* 'buy something (done by several actors)'; the affix *maka-* which implies that circumstances not entirely within the control of the actor are mainly responsible for the action being performed, as in *makabili* 'to be able to buy/buy without previous intention'; and a type of base reduplication expressing performance of the action in a moderate manner, as in *umurung-urong* 'move back a little', cf., *umurong* 'move back.'

The modal affixes exhibit much idiosyncratic behavior with respect to nominal derivation. For example, it appears that the plural affix *si-* is more likely to occur in a derived noun when it is followed by *pag-* than when it is not as in *magdemonstrate* 'demonstrate' → *magsipagdemonstrate* 'demonstrate, plural actor' → *pagsisipagdemonstrate* 'act of demonstrating, plural actor'; *mag-aral* 'study' → *magsipag-aral* 'study, plural' → *pagsisipag-aral* 'act of studying, plural'; vs. *umasa* 'hope' → *magsiasa* 'hope, plural' → (?) *pagsisiasa* 'act of hoping, plural'. Pending further studies on the grammar and usage of modal affixes in relation to nominal derivation, Mode has to be excluded from consideration (in the present paper) as a constituent of base phrase markers that serve as input to the transformational rules that yield the derived nominals.

2.8 The verb bases differ in their ability to combine with affixes associated with the major focus features. The following are the base classes:

$$\text{B-29. Verb base} \rightarrow \left\{ \begin{array}{l} \text{Bi} \\ \text{Bo} \\ \text{Bd} \\ \text{Bdo} \end{array} \right\}$$

Intransitive verb bases (*Bi*'s) can select only one major focus, namely, the actor, and therefore cannot vary its surface subject in the way that the other three bases and the verbs that they form can. The following sentence contains a verb, *mabulok* 'get rotten', formed by the intransitive base *bulok* 'rotten':

- (1) *Nabubulok ang mangga.*
 'getting rotten' 'mango'
 'The mango is getting rotten.'

An object verb base (*Bo*) can take two focuses, namely, actor and object, thus forming two related verbs differing only in the semantic components which they select as their surface subjects. Examples are *magsigarilyo* and *sigarilyuhin*, actor-focus and object-focus forms from the base *sigarilyo* 'smoke', as in:

- (2) *Nagsisigarilyo ka ba nito?*
 'Do you smoke this?'

(3) *Sinisigarilyo mo ba ito?*

'Do you smoke this?'

A directional verb base (Bd) takes two focuses, namely, actor and directional goal, as in *tumingin* and *tingnan*, formed by the base *tingin* 'look':

(4) *Tumingin ka sa kalendaryo.*

'Look at a/the calendar.'

(5) *Tingnan mo ang kalendaryo.*

'Look at the calendar.'

A double-object verb base takes three focuses: actor, object, and directional focus. One such base is *bili* 'buy' which forms the verbs and sentences shown in examples (1) through (3) in subsection 2.6.

2.9. The Tagalog rules for the order of the substantive phrases expressing actor, object, and directional goal in a sentence or in a derived nominal are based on the morphological structure of these substantive phrases. Meaning is not affected by the order of these phrases, provided the verb or the derived noun retains its position as the initial word in the phrase.

A substantive phrase formed by a pronoun and the relation marker *ng-1* (example: *niya* 'he/she') or by a pronoun and the relation marker *ang* (example: *siya* 'he/she') precedes other substantive phrases. Example are:

(1) *Nag-imbata siya ng estudyante.*

'He/She invited a student.'

(2) *Inimbata niya ang estudyante.*

'He/She invited the student.'

If both a *ng-1* and an *ang* form of a pronoun occur, the former precedes, except that if one of these pronouns is monosyllabic, that pronoun precedes. The monosyllabic pronouns are the *ang* form *ka* 'you' and the *ng-1* forms *ko* 'I' and *mo* 'you'. Examples of their use are:

(3) *Binigyan ko siya ng imbitasyon.*

'I gave him an invitation.'

(4) *Binigyan ka niya ang imbitasyon.*

'He gave you an invitation.'

(5) *Binigyan niya siya ng imbitasyon.*

'He gave hi man invitation.'

In other cases, the three substantive phrases expressing actor, object, and directional goal may occur in any order, although there is a tendency to use the order Actor + Object + Directional goal more than others.

2.10. In order to simplify the formulation of transformational rules for the assignment of relation markers in sentences and derived nominals, a basic order for the semantic elements actor, object, and directional goal in the deep structure is adopted here. The rules for the semantic function of the substantive phrases are as follows:

1. The first substantive phrase in the verb phrase after the verb, if formed by an object-verb base, or by a double-object verb base, expresses the object.

2. The first substantive phrase in the verb phrase after a directional-verb base and the second substantive phrase after a double-object verb base express the directional goal.

3. The primary substantive phrase is the actor expression.

Given a major focus component in the verbal affix that matches the semantic function of a particular substantive phrase (as determined by the rules just given), **that** substantive phrase gets the relation marker *ang* and becomes the surface **subject**. Figures 5 through 7 schematically represent the assignment of the relation marker *ang*.

Fig. 5. Assignment of the relation marker *ang* in an actor-focus sentence.

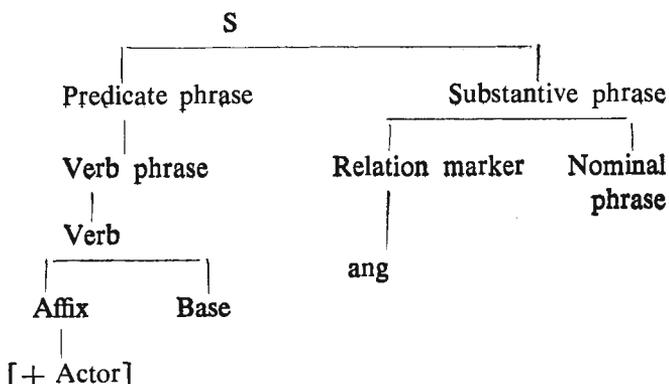


Fig. 6. Assignment of the relation marker *ang* in an object-focus sentence.

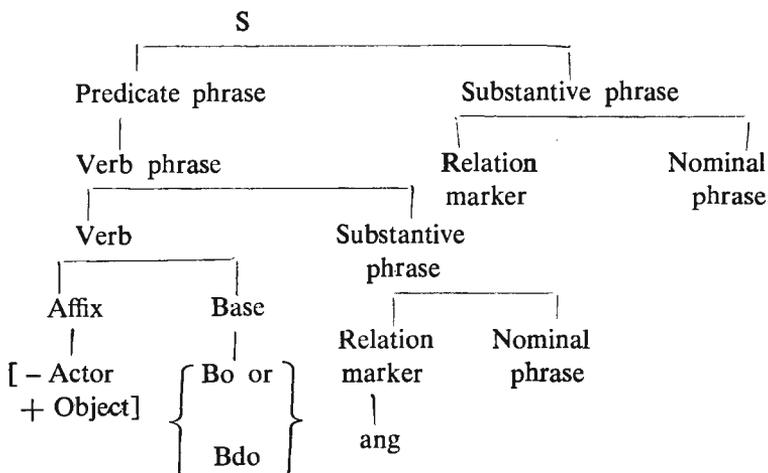
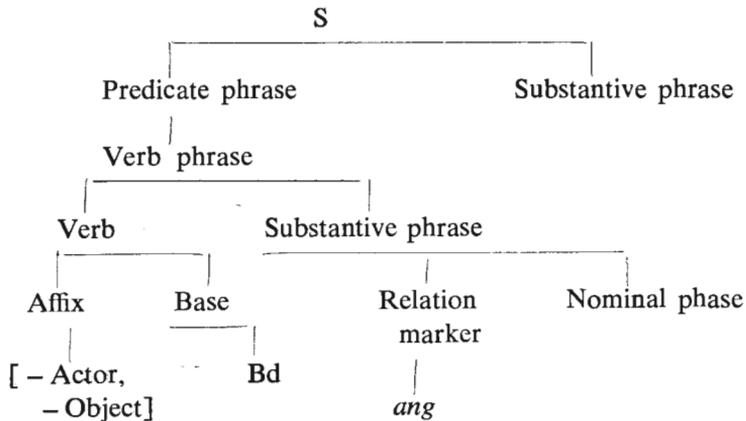
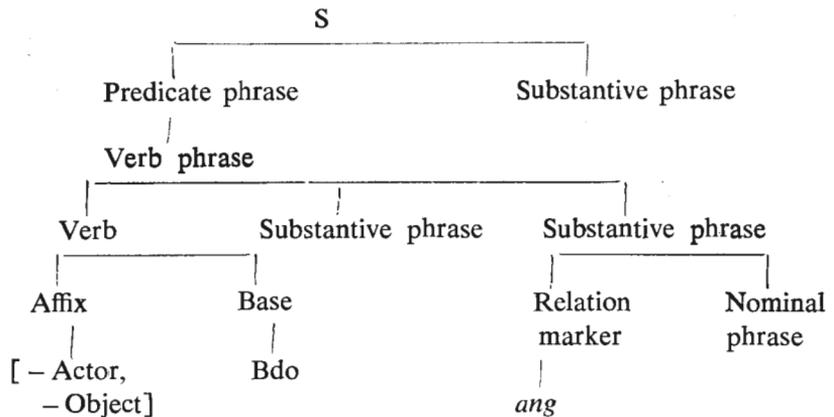


Fig. 7. Assignment of the relation marker *ang* in a directional-focus sentence.

7a) With a directional-verb base:

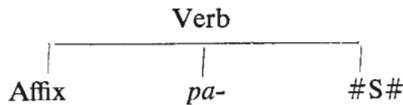


7b) With a double-object verb base:



2.11. There is at least one type of verb stem that is best described as a derivation from an embedded sentence. This verb stem is formed by the affix *pa-* (see rule B-18). A verb thus formed has the deep structure shown in Figure 8.

Fig. 8. Deep structure of a derived verb with *pa-*.



The embedded sentences are formed by verbal predicates, and the resultant sentences are capable of expressing all the focuses of the embedded verb base, plus one additional focus on the actor phrase of the embedded sentence (see

example 3 below). The verbs with this type of verb stem generally express the meaning 'action performed by one actor, motivated or caused to be done by another actor'. Examples of these verbs, to be referred to as **indirect action** verbs, are the following:

(1) Actor-focus:

Nagpakuha ng baso sa weyter ang lalaki.
 'asked to get' 'glass' 'waiter' 'man'
 'The man asked the waiter to get a glass.'
 Embedded sentence:
Kumuha ng baso ang weyter.
 'The waiter got a glass.'

(2) Object-focus:

Ipinakuha ng lalaki sa weyter ang baso.
 'asked to get' 'man' 'waiter' 'glass'
 Embedded sentence:
Kinuha ng weyter ang baso.
 'The waiter got the glass.'

(3) Secondary-actor focus:

Pinakuha ng lalaki ng baso ang weyter.
 'asked to get' 'man' 'glass' 'waiter'
 'The man asked the waiter to get a glass.'
 Embedded sentence:
Kumuha ng baso ang weyter.
 'The waiter got a glass.'

Examples (1) and (3) are both actor-focus, the difference being that (1) selects as the surface subject the primary actor, or the actor expression originating from the matrix sentence, while (3) selects as its surface subject the actor expression of the embedded sentence, or the secondary actor.

Unlike the sentences, the derived nominal cannot indicate the focus, since the actor expression is not expressed as the surface subject (marked by *ang*) but rather as an actor complement (marked by *ng-1*), and since the nominalizer itself has a fixed form (determined only by the actor-focus affix of the embedded verb).

3. TRANSFORMATIONAL RULES FOR VERB PHRASES.

3.1. The structure and meaning of nominals derived from verbal predications depend on the structure of the latter. Specifically, the particular variant of the nominalizer which occurs in the surface structure of the derived noun is determined by the particular actor-focus affix taken by the embedded verb base; and the semantic interpretation of the substantive phrases and other structures that occur as complements of the derived noun depends on the function of these structures in the embedded sentence.

3.2. The following transformational rules assign relation markers to the substantive phrase within each single embedded sentence, based on the basic underlying order described in subsection 2.10 above. These rules precede any other set of rules, including the rules for nominal derivation (see section 6 below), and they are to be applied in the order given. The use of square brackets follows Robert B. Lees (1960:35) Rule T-1, for example, is to be read as follows: where the Focus is [+ Actor] or [- Object], the relation marker is *ng-2*; and where the Focus is [+ Object], the relation marker is *ang*.

In the examples, surface structure forms are given for the sake of simplicity of presentation, except where it is necessary to give the deep structure constituents to illustrate the operation of the particular rule.

T-1. Assignment of relation marker to the object expression.

Structural description:

$$X + \left[\left\{ \begin{array}{l} [+ \text{ Actor}] \\ [- \text{ Object}] \end{array} \right\} \right] + \left\{ \begin{array}{l} \text{Bo} \\ \text{Bdo} \end{array} \right\}$$

(1)

Relation marker, Y

(2) (3)

Structural change:

$$1 \dots 3 \rightarrow 1 + \left[\begin{array}{l} \text{ng-2} \\ \text{ang} \end{array} \right] + 3$$

Discussion: In this and the other rules, where the particular feature (e.g., [- Object]) has a unique source in the base rules, no indication of the source is given. That is, [- Object] is a shortened form of [- Actor, - Object] for the directional-focus affix component; and [+ Object] is a shortened form of the set [- Actor, + Object] for the object-focus affix component.

Examples:

[+ Actor]:

mag-imbíta + Relation marker + *estudyante* → *mag-imbíta* + *ng-2* + *estudyante* (to form *mag-imbíta ng estudyante* 'invite a student')

[- Object]:

bigyan + Relation marker + *imbitasyon* → *bigyan ng-2 imbitasyon* (to form *bigyan ng imbitasyon* 'give an invitation')

[+ Object]:

imbitahin + Relation marker + *estudyante* → *imbitahin ang estudyante* 'invite the student'

ibigay + Relation marker + *imbitasyon* → *ibigay ang imbitasyon* 'give the invitation'

T-2. Assignment of relation marker to the directional goal.

Structural description:

$$X + \left[\begin{array}{c} \left\{ \begin{array}{l} [+ \text{ Actor}] \\ [+ \text{ Object}] \end{array} \right\} \\ [- \text{ Object}] \end{array} \right] + \left\{ \begin{array}{l} \text{Bd} \\ \text{Bdo} + \text{Substantive phrase} \end{array} \right\}$$

(1)

Relation marker, Y

Structural change:

$$1 \dots 3 \rightarrow 1 + \left[\begin{array}{c} sa \\ ang \end{array} \right] + 3$$

Examples:

[+ Actor]:

umupo + relation marker + *silya* →
umupo sa silya 'sit on a/the chair'

[+ Object]:

ibigay ang imbitasyon + Relation marker +
estudyante → *ibigay ang imbitasyon*
sa estudyante 'give the invitation to
the student'

[- Object]:

upuan + Relation marker + *silya* → *upuan*
ang silya 'sit on the chair'

bigyan ng imbitasyon + Relation marker +
estudyante → *bigyan ng imbitasyon ang estudyante*
'give an invitation to the student'

(Note: Aspect is excluded from the verbs in the examples,
unless verb inflection is necessary in the operation of the
rule.)

T-3. Assignment of relation marker to the primary substantive phrase (i.e., the actor phrase).

Structural description:

$$X + \left[\begin{array}{c} \left[\begin{array}{c} [+ \text{ Actor}] \\ [- \text{ Actor}] \end{array} \right] + Y \\ \text{Verb phrase} \end{array} \right]$$

(1)

Relation marker, Z

(2) (3)

Structural change:

$$1 \dots 3 \rightarrow 1 + \left[\begin{array}{c} ang \\ ng-1 \end{array} \right] + 3$$

Discussion: *Ng-2* (see rule T-1) and *ng-1* have identical surface structure forms. Unlike *ng-1*, however, *ng-2* cannot be followed by a pronoun or by a personal name ([+ NB, + *si* —]) in the substantive phrase. Thus, for example, a form like *niya* 'he/she' can only be an instance of *ng-1* plus a pronoun and a form like *ni Pedro* can only be an instance of *ng-1* plus *si* plus a personal name noun; these forms never express objects of actions. (*Ng-1* also marks possessiveness, as in *bahay niya* 'his house' and *bahay ni Pedro* 'Pedro's house'.)

Examples:

[+ Actor]:

magbigay ng imbitasyon sa estudyante + Relation marker + *kapitbahay* → *magbigay ng imbitasyon sa estudyante ang kapitbahay* 'the neighbor () give an invitation to the student'

[– Actor]:

ibigay ang imbitasyon sa estudyante + Relation marker + *kapitbahay* → *ibigay ang imbitasyon sa estudyante* + *ng-1* + *kapitbahay* (to form *ibigay ang imbitasyon sa estudyante ng kapitbahay* or *ibigay ng kapitbahay sa estudyante ang imbitasyon* 'the neighbor () give the invitation to the student')

bigyan ng-2 imbitasyon ang estudyante + Relation marker + *kapitbahay* → *bigyan ng-2 imbitasyon ang estudyante* + *ng-1* + *kapitbahay* (to form *bigyan ng kapitbahay ng imbitasyon ang estudyante* 'the neighbor () give an invitation to the student')

T-4. Derived verb stem with *pa-*.

Structural description:

X + [+ Actor] + *pa-*, [# [+ Actor], Y] Predicate phrase

(1) (2) (3)
ang, Z, # X
(4) (5) (6) (7)

Structural change:

1...7 → 1 + 3 + *sa* + 5 + 7

Discussion: This rule is restricted to actor-focus sentences, since these are the structures that have the greatest similarity to the derived nominals with *pa-*. As previously mentioned (see subsection 2.11), other focuses are possible.

Examples:

[+ Actor] + *pa-* # [+ Actor] *kuha ng baso ang weyter*
→ [+ Actor] + *pa-* + *kuha ng baso sa weyter*

since this would involve an embedded sentence: *Halaman si Rosa* 'Rosa is a plant'. The superlative implies that similar objects are being compared, and the substantive phrase occurring as its surface subject (e.g., *si Rosa*) may be given the meaning 'individual or individuals possessing the given quality to a greater extent than any other member of the group'. *Si Rosa*, or any other noun preceded by *si*, denotes a human being (cf., *ang rosa* 'the rose', *ang American Beauty Rose* 'American Beauty Rose'); thus, the same re-interpretation of customary notions of the real world, such that a plant would be given a personal name would be necessary for both the superlative construction (4) and the postulated embedded sentence *Halaman si Rosa* to become meaningful.

Nominals may be derived directly from structures of unequal comparison formed by *kaysa*, provided the intensifier *higit* 'a lot more' is present. An example of such a nominal is:

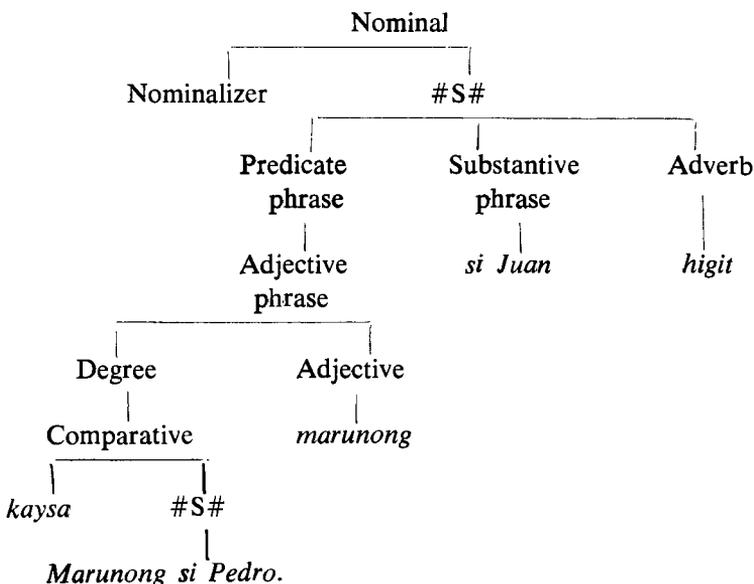
- (5) *higit na karunungan ni Juan kaysa kay Pedro.*
 'a lot more' 'intelligence' 'than'
 'Juan's being a lot more intelligent than Pedro.'

The embedded sentence is:

- (6) *Higit na marunong si Juan kaysa kay Pedro.*
 'a lot more' 'intelligent' 'than'
 'Juan is a lot more intelligent than Pedro.'

The deep structure of this sentence and of the derived nominal is shown in Fig. 9.

Fig. 9. Deep structure of derived nominal from a compared adjective.



Unlike the comparative, the superlative construction cannot be directly embedded in a nominal node. An intermediate step of verbalization (i.e., embedding

in a verb stem formed by *-gìng*, see rule B-18) is required. Thus, for example, the derived nominal (bold) in the following sentence contains a derivation from *masing* 'be/become':

- (7) *Balitang-balita ang **pagiging pinakamaganda ni Rosa sa mga estudyante.***

'Rosa's being/becoming the most beautiful of (all) the students is well known.'

(*Maging* is ambiguous ('be/become') in its uninflected form; the inflected forms only mean 'become', as in *masing makatarungan* 'be/become just' vs. *naging/naginging/ magiging makatarungan* 'became/becoming/will become just'. The derived noun *pagiging* also ambiguously means 'be' or 'become'.)

As mentioned above, an intensifying adverb is needed for embedding a compared adjective in a nominal node. Rules B-36 and B-37 develop the Adverb node.

B-36. Adverb \rightarrow $\left\{ \begin{array}{c} \cdot \cdot \cdot \\ \text{Intensifier} \end{array} \right\}$

B-37. Intensifier \rightarrow $\left\{ \begin{array}{c} \text{higit} \\ \text{lalo} \end{array} \right\}$ 'more'

4.3. The other constituents generated by rule B-30 (i.e., Substantive phrase and Linker-1 #S#) generate structures that serve as complements of the adjective. Examples of adjective phrases formed by these constituents are:

- (1) *kulang sa asin* 'lacking in salt'
- (2) *marunong ng Inggles* 'possessing a knowledge of English'
- (3) *marunong magsalita ng Inggles* 'having the ability to speak English'

Various constituents of the adjectival affix which change the meaning of the adjective but which have little or no effect on the syntactic structure are listed in B-35. Of these affixes, only *ma-* participates in nominal derivation. Thus, for example, corresponding to *maganda*, there is a derived noun *kagandahan* ('beautiful, beauty', respectively); but there is no derived noun corresponding to *maganda-ganda* 'rather beautiful' (dup-2 + *ma-* + Adjective base).

Not all adjective bases occur with all the possible constituents of the adjective phrase, hence adjective bases are specified for co-occurrence with these constituents. Rule B-38 gives a matrix of these features.

B-38. Adjective base \rightarrow [+ AB, \pm Nominalizer . . . —; \pm *ma-*; \pm — *sa*; \pm — *ng-2*; \pm — linker-1; \pm . . . — [+ NB, + animate]; . . .]

The adjectives that form derived nominals do not all occur with the same nominalizer; hence, for the nominalizer selected for discussion in this paper, a further selectional rule is needed:

$$\text{B-39. } [+ \text{ Nominalizer}] \rightarrow \left\{ \begin{array}{l} [\pm \text{ KA-} \dots \text{-AN}] \\ \dots \end{array} \right\}$$

4.4. The restrictions on base phrase markers that serve as input to the transformational rules that derive nominals from adjective phrases are summarized as follows:

1. If Degree is present, Degree \rightarrow Comparative, and Comparative \rightarrow *kaysa #S#* and furthermore, Adverb \rightarrow Intensifier.
2. If Affix is present, Affix \rightarrow *ma-*.
3. The adjective base (AB) is [+ Nominalizer . . . —].

5. TRANSFORMATIONAL RULES FOR ADJECTIVAL PREDICATES.

5.1. The following rules are specific to adjective phrases that serve as input to the rules that derive the nominals.

T-5. Relation marker of the primary substantive phrase.

Structural description:

$$\begin{array}{ccc} [X + \text{ Adjective phrase}] & & , \text{ Relation} \\ & & \text{Predicate phrase} \\ (1) & & (2) \\ \text{marker, Nominal phrase} + Y & & \\ (3) & & \end{array}$$

Structural change:

$$1 \dots 3 \rightarrow 1 + \text{ang} + 3$$

Example:

$$\text{Maganda} + \text{Relation marker} + \text{bata} \rightarrow \text{Maganda ang bata.}$$

T-6. Relation marker of substantive phrase after adjective base.

Structural description:

$$\begin{array}{ccc} X + \left[\begin{array}{l} \text{Adjective base-1} \\ \text{Adjective base-2} \end{array} \right] & & , \text{ Relation marker,} \\ (1) & & (2) \\ \text{Nominal phrase} + Y & & \\ (3) & & \end{array}$$

Condition: Adjective base-1 \rightarrow [+ AB, + — ng-2];

Adjective base-2 \rightarrow /+ AB, + — sa/.

Structural change:

$$1 \dots 3 \rightarrow 1 + \left[\begin{array}{l} \text{ng-2} \\ \text{sa} \end{array} \right] + 3$$

Examples:

$$\text{kulang} + \text{Relation marker} + \text{asin} \rightarrow \text{kulang sa asin} \text{ 'lacking salt'}$$

$$\text{marunong} + \text{Relation marker} + \text{Inggles} \rightarrow$$

$$\text{marunong} + \text{ng-B} + \text{Inggles} \text{ 'having a knowledge of English'}$$

5.2. The rules that derive the phrase markers of the comparative, such that only *kaysa* + Relation marker + Nominal phrase remains from an embedded sentence, and the rules that derive the phrase markers of sentential complements such that only linker-1 (whose surface forms are *-ng* or ϕ depending on the phonological environment) and a verb phrase without Aspect remain out of an embedded sentence with a verbal predicate are not formulated here, since a detailed description of these relatively complex adjective phrases belong in a full discussion of the adjectives. Among the rules pertaining to the comparative is a relatively late rule (though prior to the formation of the derived nominal) which places *kaysa* and the derived Nominal Phrase (e.g., *kaysa kay Juan* 'than Juan') either immediately after the contrasting Nominal Phrase (see example 1 below) or at the end of the resultant sentence (example 2). In subsequent rules in this paper, all the rules for the formation of the complement structures of adjectives as well as of the comparative structures in adjective phrases will be assumed to have been previously applied. Examples of results of such rules are the following:

- (1) *Higit na marunong ng Inggles kaysa Tagalog si Juan.*
 'a lot more' 'knowledgeable' 'than'
 'Juan knows English a lot more than Tagalog.'

(The placement of the intensifier *higit* in pre-adjectival position is an exception; the rule that accomplishes this is applied after the derivation of the nominal, in order to keep the nominalizer as close to the adjective base as possible—see rule T-18, for example.)

- (2) *Higit na marunong ng Inggles si Juan kaysa Tagalog.*
 'Juan knows English a lot more than Tagalog.'
- (3) *Marunong siyang magsalita ng Inggles.*
 'knowledgeable' 'he/she' 'speak' 'English'
 'He/She knows how to speak English.'

6. TRANSFORMATIONAL RULES FOR DERIVED NOMINALS.

6.1. The nominalizer PAG-: Nominals formed by PAG-express the meaning 'act of' or 'process of' and the like. The derived nouns correspond to verbs without aspect.

T-7. PAG- embedding.

Structural description:

$$X + \text{PAG-}, \# , \left[\begin{array}{l} [+ \text{ Actor}] + Y \\ [+ \text{ Object}] + Y \\ [- \text{ Object}] + Y \end{array} \right] + \text{ang}, Z, \#, X$$

(1) (2) (3) (4) (5) (6)

Structural change:

$$1 \dots 6 \rightarrow 1 + \left[\begin{array}{l} [+ \text{ Actor}] + Y + ng-1 \\ [+ \text{ Object}] + Y + \left\{ \begin{array}{l} ng-2 \\ sa \end{array} \right\} \\ [- \text{ Object}] + Y + sa \end{array} \right] + 4 + 6$$

Discussion: The replacement of the surface subject marker *ang* by *ng-1*, *ng-2*, or *sa* depends on the focus of the embedded verb. PAG- and PAGKA- are identically derived, except that the latter includes Aspect in the embedded sentence, and fewer verbal affixes yield PAGKA- forms than PAG-forms. For a discussion of the relation markers, see 6.2 below.

Examples:

PAG- #*Kumuha ng eksamen ang estudyante*# →

PAG- *kumuha ng eksamen ng-1 estudyante* (to form *pagkuha ng eksamen ng estudyante* 'the student's taking an exam')

PAG- #*Kinuha ang eksamen ng estudyante*# →

PAG- *kinuha ng-2/sa eksamen ng estudyante* (to form *pagkuha sa eksamen ng estudyante* and *pagkuha ng eksamen ng estudyante* 'the student's taking the exam')

6.2. The nominalizer PAGKA-

T-8. PAGKA- embedding.

Structural description:

$$X + \text{PAGKA-}, \# , [- \text{Recent}] , \left[\begin{array}{l} [+ \text{ Actor}] + Y \\ [+ \text{ Object}] + Y \\ [- \text{ Object}] + Y \end{array} \right] + \text{ang} ,$$

$$\begin{array}{cccc} (1) & (2) & (3) & (4) \\ Z , \# , X & & & \\ (5) & (6) & (7) & \end{array}$$

Structural change:

$$1 \dots 7 \rightarrow 1 + 3 + \left[\begin{array}{l} [+ \text{ Actor}] + Y + ng-1 \\ [+ \text{ Object}] + Y + \left\{ \begin{array}{l} ng-2 \\ sa \end{array} \right\} \\ [- \text{ Object}] + Y + sa \end{array} \right] + 5 + 7$$

Discussion: PAGKA- nominals are derived from sentences formed by verbs with the [- Recent] aspect. The relation marker that converts the surface subject into a complement of the derived noun is determined by the focus of the embedded verb.

Examples:

[+ Actor]:

PAGKA- #*Nagbili ng bahay ang babae*# →PAGKA- *nagbili ng bahay ng-1 babae* (to form *pagkakapagbili ng bahay ng babae* 'the woman's having sold a house')

([+ Object] :

PAGKA- #*Ipinagbili ang bahay ng babae*# →PAGKA- *ipinagbili ng-2/sa bahay ng babae* (to form *pagkakapagbili ng/sa bahay ng babae* 'the woman's having sold the house')

[- Object]:

PAGKA- #*Pinagbilhan ng bahay ang lalaki ng babae*# →PAGKA- *pinagbilhan ng bahay sa lalaki ng babae* (to form *pagkakapagbili ng bahay sa lalaki ng babae* 'the woman's having sold a house to the man')

(Note that the actor expression in the derived nominal is marked by *ng-1*; the object expression, by *ng-2* or by *sa* (and if by *ng-2*, the nominal cannot be a pronoun or a personal name); and the directional goal by *sa*.)

Further examples:

PAGKA• #*Tumawag sa doktor ang babae*# →PAGKA- *tumawag sa doktor ng-1 babae* (to form *pagkakatawag sa doktor ng babae* 'the woman's having phoned the doctor')PAGKA- #*Tinawag ang doktor ng babae*# →PAGKA- *tinawag ng-2/sa doktor ng babae* (to form *pagkakatawag ng/sa doktor ng babae* 'the woman's having summoned a doctor')PAGKA- #*Tinawag + ang + si Dr. Cruz ng babae*# →PAGKA- *tinawag + sa + si Dr. Cruz ng babae* (to form *pagkakatawag kay Dr. Cruz ng babae* 'the woman's having summoned Dr. Cruz'; *ng-2* is not possible here: there is no **pagkakatawag ni Dr. Cruz ng babae* to express the same meaning.)

6.3. The nominalizer -AN: Unlike the nominals formed by PAG- and PAGKA-, those formed by -AN require the deletion of the substantive phrase expressing place. In view of structural parallels with directional-focus and locative-focus sentences, the embedded sentences are assumed to have either directional-focus or locative-focus components in the verbal affix (and to have PRO in the directional-goal expression or in the substantive phrase of the locative adverb. Thus, a nominal like:

- (1) *taguan ko ng pera*
'place where I keep money'

would have the deep structure:

-AN + # *Pinagtataguan ko ng pera and* + Nominal marker + PRO #
and a nominal like:

(2) *hiraman ko ng pera*

'place/person from where/whom I borrow money'

would have the deep structure:

-AN + # *Hinihiraman ko ng pera ang* + Nominal marker + PRO

Pinagtataguan is locative-focus, *hinihiraman*, directional-focus. (These surface-structure forms actually represent the deep structure strings: (1) Aspect + [\pm Locative] + Verb base and (2) Aspect + [—Object] + Verb base, respectively.)

PRO is the dummy element or pro-form for the Nominal category generated by base rule B-4. The use of the pro-form as the nominal in the deleted substantive phrase rather than a lexical form like *kahon* 'box' or *kabinet* 'cabinet' follows the principle of recoverable deletion. That is, *taguan ko ng pera* 'place where I keep money' cannot be said to come from *Pinagtataguan ko ng pera ang kahon* 'I keep money in the box' or from *Pinagtataguan ko ng pera ang kabinet* 'I keep the money in the cabinet'. A better formulation would be to say that it is derived from an embedded sentence where 'place' is indefinite as to identity—i.e., where the appropriate substantive phrase would be equivalent to 'somewhere' or 'someplace'. Tagalog employs deletion to express this indefiniteness, hence the use of PRO to "trigger" the deletion transformation, T-27 below. On recoverable deletion, the following pertinent passages from Chomsky (1965: 144) may be quoted:

We are proposing the following convention to guarantee recoverability of deletion: a deletion operation can eliminate only a dummy element, or a formative explicitly mentioned in the structure index (for example, *you* in imperatives), or the designated representative of a category . . . or an element that is otherwise represented in the sentence in a fixed position.

The following rule specifies the structure of the string embedded in the nominal node with the nominalizer -AN.

T-9. -AN embedding.

Structural description:

$$X + \text{-AN, \# , } \left\{ \begin{array}{l} \text{[— Object]} \\ \text{[+ Locative]} \end{array} \right\} + Y + \textit{ang} + \textit{Nominal}$$

$$\begin{array}{ccccc} (1) & (2) & & (3) & \\ & \text{marker} + \text{PRO} + Z, \# , X & & & \\ & & & (4) & (5) \end{array}$$

Structural change:

$$1 \dots 5 \rightarrow 1 + 3 + 5$$

Discussion: Since the derived nominal has no aspect, this component is considered to be absent in the embedded sentence.

6.4. The nominalizer -IN: Derived nominals formed by -IN denote the unspecified object of an activity, usually one viewed as a chore or a duty—hence, a nominal like *alagain ng Nanay* ‘someone Mother has to take care of’ is not usually applied to one’s own children. As in the case of the -IN nominals, the object is expressed not as part of the derived nominal itself but through context, as in:

(1) *Sila ang mga alagain ng Nanay.*

‘They ’ (persons) Mother has to take care of’

‘They are the (persons) Mother has to take care of.’

Of course, the context may not supply the information, as in:

(2) *Marami ang mga alagain ng Nanay.*

‘many’

‘There are many that Mother has to take care of.’

T-10. -IN embedding.

Structural description:

X + -IN, # , [+ Object] + Y + *ang* + Nominal marker

(1) (2) (3)

+ PRO + Z, #, X

(4) (5)

Structural change:

1...5 → 1 + 3 + 5

Examples:

-IN # [+ Object] + *laba ang* + Nominal marker + PRO + *ng Nanay*# → -IN + [+ Object] + *laba ang* + Nominal marker + PRO + *ng Nanay* (to form *labahin ng Nanay* ‘things Mother has to launder’)

-IN # [+ Object] + *aral ang* + Nominal marker + PRO + *ng estudyante*# → -IN [+ Object] + *aral ang* + Nominal marker + PRO + *ng estudyante* (to form *aralin ng estudyante* ‘things the student has to study’)

6.5. TAGA- nominals: The nominals formed by TAGA- express the meaning ‘regular performer of an activity’. These nominals always refer to animate beings, and therefore cannot occur as subjects opposite adjectives that refer to inanimate objects; there is, for example, no: **Luma ang*

Structural description:

X + -IN, # , [+ Object] + Y + *ang* + Nominal

Focus

(1) (2) (3)

marker + PRO + Z, #, X

(4) (5)

Structural change:

1...5 → 1 + 3 + 5

Examples:

-IN #*labhan ng Nanay* + *ang* + Nominal marker + PRO# → -IN *labhan ng Nanay* + *ang* + Nominal marker + PRO (to form *labahin ng Nanay* 'things for Mother to launder')

-IN #*pag-aralan ng estudyante* + *ang* + Nominal marker + PRO → -IN *pag-aralan ng estudyante* + *ang* + Nominal marker + PRO (to form *aralin ng estudyante* 'things for the student to study' or 'school assignment or homework').

6.5. TAGA- nominals. The nominals formed by TAGA- express the meaning 'regular performer of an activity'. These nominals always refer to animate beings, and therefore cannot occur as subjects opposite adjectives that refer to inanimate objects; there is, for example, no: **Luma ang tagapag-translate* since the double-underscored form, an instance of a TAGA- nominals, can only refer to an animate translator (see 4.2. above for *luma*). One of the difficulties of a general pro-form PRO is that it cannot specify this restriction on animateness or any other selectional restriction. The *tagapag-translate* to mean 'the translator is old' since the bold-faced form, an instance of a TAGA- nominal, can only refer to an animate translator (see 4.2 above for *luma*). One of the difficulties of employing a general pro-form PRO for the Nominal category is that it cannot specify this restriction on animateness or any other selectional restriction. The solution adopted here is to assign the meaning 'animate performer' to the nominalizer TAGA-, in the same way that 'chore' or 'duty' is part of the meaning of the nominalizer -IN. In other words, there are meanings of the derived nominals that are not brought into these forms by the embedded sentence but rather by the nominalizers.

The *ng*-1 forms occurring with the derived noun in a TAGA-nominal may express the directional goal, the object, or, in the case of an indirect-action verb, the secondary actor. Examples are:

- (1) directional goal: *tagahanga ng artista*
 'admirer' 'artist'
 'the artist's admirer'

cf.: *Humahanga sa artista ang (PRO)*.
 '(Someone) admires the artist.'

- (2) object: *tagapakinig ng radio*
 'listener' 'radio'
 'regular radio listener'

cf.: *Nakikinig ng radyo ang (PRO)*.
 '(Someone) listens to the radio.'

- (3) secondary actor: *tagapagpaalala niya ng mga gawain*
 'one who reminds' 'he/she' 'tasks'
 'one who regularly reminds him of tasks'

Cf.: *Nagpapaalala sa kaniya ng mga gawain ang + (PRO)*.
 '(Someone) reminds him of tasks.'

T-11 below requires a structural description with PRO in the substantive phrase marked by *ang*. T-12 replaces the relation marker of the directional goal, the object expression, or the secondary actor of a *pa-* (indirect-action) verb by the relation marker *ng-1*.

T-11. TAGA- embedding.

Structural description:

$$\begin{array}{cccc}
 X + \text{TAGA-} , \# , & & & [[+ \text{Actor}] + Y] \text{ Predicate phrase} \\
 (1) & (2) & (3) & \\
 + \text{ang} + \text{Nominal marker} + \text{PRO} + Z , \# , X & & & \\
 & & & (4) \quad (5)
 \end{array}$$

Structural change:

$$1 \dots 5 \rightarrow 1 + 3 + 5$$

T-12. Relation marker of object expression, directional goal, and secondary actor in a TAGA- nominal.

Structural description:

$$\begin{array}{ccc}
 X + \text{TAGA-} + \text{Focus} , & \left[\begin{array}{l} \text{Bo} + \text{ng-2} \\ \text{Bd} + \text{sa} \\ \text{pa-} + [\text{Verb} (\text{ng-2} + Y + \text{PRO})] + \text{sa} \\ \text{VP} \end{array} \right] & \\
 (1) & (2) & \\
 Z & & \\
 (3) & &
 \end{array}$$

Structural change:

$$1 \dots 3 \rightarrow$$

$$1 \dots 3 \rightarrow$$

$$1 + \left[\begin{array}{l} \text{Bo} + \left\{ \begin{array}{l} \text{ng-1} \\ \text{sa} \end{array} \right\} \\ \text{Bd} + \text{ng-1} \\ \text{pa-} + \text{Verb} (\text{ng-2} + Y + \text{PRO}) + \text{ng-1} \end{array} \right] + 3$$

Discussion: Note that in order for T-12 to operate, the nominal phrase to be preceded by the *ng-1* relation marker must be contiguous to the verb base, as in the case of the structural descriptions for Bo, Bd, and the *pa-*

verb followed by a nominal phrase containing PRO (which would mean a deletion of this nominal phrase). Thus, while there is a derived nominal *tagapagpakain ng kabayo* 'one who regularly feeds the horse(s)', there is no **tagapagpakain ng damo ng kabayo*, since in the latter, the object expression *ng damo* 'grass' is filled by a noun and not by PRO.

6.6. The ϕ -Affix nominals. These nominals have the zero form of the nominalizer. Examples are:

- (1) *gawa ng taga-Marikina*
'object made' 'people in Marikina'
'action of making'
- (2) *tahi ni Maria*
'object sewn' 'Maria'
'act of sewing'
- (3) *dating ni Juan*
'arrival' 'Juan'

Where the verb base (e.g., *tahi* 'sew') can take an object expression (i.e., is an object verb base or a directional verb base), the resulting derived nominal is ambiguous. It may refer to the object of the action, or to the action itself. Thus, example (1) above may also have the meaning 'act of making something, performed by the people in Marikina'; example (2), formed by the object-verb base *tahi* 'sew', may also have the meaning 'Maria's (act of) sewing.' (Note that the English translation equivalent 'Maria's sewing' has the same ambiguity.) Example (3), formed by the intransitive verb base *dating* 'arrive' only means 'arrival.' In the meaning of 'object,' the ϕ -affix nominal cannot express the object. Thus, the following sentence occurs:

- (4) *Maganda ang tahi ni Maria.*
'beautiful' 'object sewn'
'The object sewn by Maria is beautiful.'

but a lexical form denoting the object or thing sewn has to be expressed outside the nominal as in:

- (5) *Maganda ang damit na tahi ni Maria.*
'The dress sewn by Maria is beautiful.'

In sentence (5), *damit* 'dress' and the derived nominal form a modification construction.

In contrast, the derived nominal can express the object of the action, in the meaning 'act,' as in:

- (6) *Madalas ang tahi ng damit-pangkasal ni Maria.*
'often' 'act of sewing' 'wedding dress'
'Maria often sews wedding dresses.' (or more literally, 'Maria's sewing of wedding dresses occur often.')

In T-13 below, the meaning 'object' is derived from an embedded object-focus sentence with PRO as its object expression; the meaning 'act' is derived from an actor-focus sentence. Note that in the actor-focus sentence, the *ang* relation marker of the actor expression (i.e., of the primary substantive phrase) is replaced by *ng-1* to convert what would otherwise be the surface subject into an actor complement of the resultant nominal.

T-13. ϕ -Affix embedding.

Structural description:

$$X + [\phi\text{-Affix}] \quad , \# \quad ,$$

Nominalizer

(1) . (2)

$$\left[\begin{array}{l} [- \text{Object}] + Y + \textit{ang} \text{ Nominal marker} + \text{PRO} \\ [+ \text{Actor}] + Y + \textit{ang} \end{array} \right] , Z$$

(3) (4)

$$\# , X$$

(5) (6)

Structural change:

$$1 \dots 6 \rightarrow 1 + \left[\begin{array}{l} 3 \\ [+ \text{Actor}] + Y + \textit{ng-1} \end{array} \right] + 4 + 6$$

Examples:

ϕ -Affix, #*Tahiin ni Maria* + *ang* + Nominal marker + PRO#
 → ϕ -Affix + *tahiin ni Maria* + *ang* + Nominal marker
 + PRO (to form *tahi ni Maria* 'object sewn by Maria')

ϕ -Affix + #*Tumahi ng damit-pangkasal* + *ang* + *si* + *Maria*#
 → ϕ -Affix + *tumahi ng damit-pangkasal* + *ng-1* + *si* +
Maria (to form *tahi ng damit-pangkasal ni Maria* 'Maria's
 sewing wedding dresses').

6.7. The KA- . . . -AN nominals. The derived nominals formed by the nominalizer KA- . . . -AN are the nominal counterparts of adjective phrases formed by adjectives that consist either of an affix and a base or of a base only. The affix is always *ma-*; the other affixes do not take part in nominal derivation (see subsections 4.3 and 4.4 above). Examples of these derived nominals and the underlying adjectives are:

- (1) *dahil sa kagandahan niyang umawit*
 'because' 'beauty' 'he/she' 'singing'
 'because of the beauty of his/her singing'
 cf. *Maganda siyang umawit.*
 'He/She sings beautifully.'

(2) *ang kamangmangan ng lalaki*

‘lack of schooling’ ‘man’

‘the man’s lack of schooling’

cf. *Mangmang ang lalaki.*

‘The man lacks schooling.’

As shown in example (1), the structures that function as complements of the underlying adjective are carried over into the derived nominal as complements of the derived noun; the sequence *-ng umawit* is an instance of the linker-1 + #S# structure generated by rule B-30.

T-14. KA- . . . -AN embedding.

Structural description.

$$\begin{array}{ccccccc} X + KA- & \dots & -AN, \# & , & \text{Adjective} & + & Y, \text{ang}, Z, \\ & (1) & (2) & & (3) & (4) & (5) \\ & (\text{higit} + \text{kaysa}) & + & X, \# & , & Y & \\ & (6) & & (7) & (8) & & \end{array}$$

Structural change:

$$1 \dots 8 \rightarrow 1 + 3 + ng-1 + 6 + 8$$

Examples:

KA- . . . -AN # *Magandang umawit* + *ang* + *siya* # →
 KA- . . . -AN *magandang umawit* + *ng-1* + *siya*
 (to form *kagandahan niyang umawit*, see example (1) above)

KA- . . . -AN # *Magandang umawit* + *ang* + *si Juan*
 + *higit kaysa kay Jose* # → KA- . . . -AN
magandang umawit + *ng-1* + *si Juan* + *higit kaysa kay*
Jose (to form *higit na kagandahang umawit ni Juan kaysa kay*
Jose ‘Juan’s better (more beautiful singing than Jose’s)?)

6.8. Aspect in nominals. All the derived nominals treated in this paper, with the exception of those formed by PAGKA-, do not express aspect, and are therefore considered to be derived from embedded sentences without aspect. The following rule replaces the [-Recent] aspect in the embedded sentence by the formatives dup-1 + *ka-* ([ka:]) in the derived nominal formed by PAGKA-. Dup-1 is the reduplication of the first consonant and the first vowel of the following formative, minus vowel length. Hence, dup-1 + *ka-* is /kaka:/.

T-15. Aspect in PAGKA- nominals.

Structural description:

$$\begin{array}{ccc} X + PAGKA-, [-Recent], Y & & \\ (1) & (2) & (3) \end{array}$$

Structural change:

$$1 \dots 3 \rightarrow 1 + \text{dup-1} + ka + 3$$

7. THE VARIANTS OF THE NOMINALIZERS.

7.1. The nominalizers PAG-, PAGKA-, and TAGA- have various surface forms depending on the actor-focus affixes of the embedded verbs. The following rules generate these variants and delete the Focus node, since Focus in derived nominals are signalled solely by the relation markers which have already been generated by the previous rules.

T-16. The variants of PAG-.

Structural description:

$$\begin{array}{ccccccc}
 \text{X, PAG-} & , & \text{Focus} & , & \left[\begin{array}{c} \text{VB-um-} \\ \text{VB-maka-} \\ \text{VB-ma-} \\ \left\{ \begin{array}{c} \text{VB-mag-} \\ \text{pa-} \\ \text{VB-mang-} \\ \text{VB-maki} \end{array} \right\} \end{array} \right] & + & \text{Y} \\
 (1) & & (2) & & (3) & & (4)
 \end{array}$$

Structural change:

$$\begin{array}{ccccccc}
 1 \dots 4 & \rightarrow & 1 & + & \left[\begin{array}{c} \text{pag-} & + & \left[\begin{array}{c} \phi \\ \text{ka} \\ \text{ka-1} \\ \text{dup-1} \end{array} \right] \\ \text{pang-} & + & \text{dup-1} \\ \text{pa-} & + & \text{dup-1} & + & \text{ki-} \end{array} \right] & + & 4
 \end{array}$$

Discussion: The forms with the prefix VB in segment (4) of the structural description represent the information assumed to be provided in the lexicon on the selection of actor-focus affixes by the individual verb bases, together with the verb bases themselves. Thus, for example, segment (4) might be occupied by the verb base *tulong* (or more precisely, the phonological information for the production of this verb base) plus the information that its actor-focus affix is *-um-*.

Example:

$$\text{PAG-} + [+ \text{Object}] + \left[\begin{array}{c} \text{tulong} \\ [+ \text{Bd}, + \text{Actor}, \\ + \text{-um-}] \end{array} \right] \rightarrow \text{Verb base}$$

$$\text{pag-} + \phi + \left[\begin{array}{c} \text{tulong} \\ [+ \text{Bd}, + \text{Actor}, \\ + \text{-um-}] \end{array} \right] \text{Verb base}$$

(to form *pagitulong* 'act of helping')

This rule accounts for the “incorrectness” of **pagkokontra* vs. the “correctness” of *pagkontra*; the latter is the derived nominal from the *-um-* verb *kumontra*, and there is no **magkontra* from which to derive **pagkokontra*.

Other examples are:

magdemonstrate → *pagdedemonstrate* ‘act of demonstrating’
magriot → *pagrariot* ‘act of rioting’
bumili → *pagbili* ‘act of buying’
magbili → *pagbibili* ‘act of selling’
mamili → *pamimili* ‘act of buying several objects’
magpakuha → *pagpapakuha* ‘act of asking someone to get something’
mabulok → *pagkabulok* ‘process of rotting’
makahalata → *pagkahalata* ‘act of noticing’
 (*Pagkabulok* has *ka-1* (/ka/); *pagkahalata* has *ka* (/ka:/.))
makialam → *pakikialam* ‘act of meddling’

T-17. Variants of PAGKA-.

Structural description:

$$\begin{array}{ccccccc}
 \text{X} , & \text{PAGKA-} , & \text{dup-1} + \text{ka} , & \text{Focus} , & \left[\begin{array}{l} \left\{ \begin{array}{l} \text{VB-um-} \\ \text{VB-maka-} \\ \text{VB-ma-} \end{array} \right\} \\ \left\{ \begin{array}{l} \text{VB-mag-} \\ \text{pa-} \end{array} \right\} \\ \text{VB-mang-} \end{array} \right] & + & \text{Y} \\
 (1) & (2) & (3) & (4) & (5) & &
 \end{array}$$

Structural change:

$$1 \dots 5 \rightarrow 1 + \text{pag-} + 3 + \left[\begin{array}{l} \phi \\ \text{pag-} \\ \text{pang-} \end{array} \right] + 5$$

Discussion: Verb bases that take actor-focus *maki-* do not express aspect in the derived nominal; that is, they only form PAG-, not PAGKA-, nominals.

Examples:

$$\text{PAGKA-} + \text{dup-1} + \text{ka-1} + \left[\begin{array}{l} \text{tulong} \\ [+ \text{Bd}, + \text{actor}, \\ + \text{-um-}] \end{array} \right] \rightarrow \text{Verb base}$$

pag + *dup-1* + *ka-* + ϕ + *tulong*
 (to form *pagkakatulong* ‘having helped’)

- makahalata* → *pagkakahalata* 'having noticed'
- masira* → *pagkakasira* 'having been destroyed'
- magbili* → *pagkacapagbili* 'having sold'
- bumili* → *pagkakabili* 'having bought'
- magpakuha* → *pagkacapagpakuha* 'having asked someone to get'
- mamili* → *pagkacapamili* 'having bought several objects'

T-18. Variants of TAGA-.

Structural description:

$$\begin{matrix}
 \text{X} & \text{TAGA-} & \text{Focus} & , & \left[\begin{matrix} \text{VB-um-} \\ \text{VB-ma-} \\ \text{pa-} \\ \text{VB-mag-} \\ \text{VB-mang-} \end{matrix} \right] & + & \text{Y} \\
 (1) & (2) & (3) & & (4)
 \end{matrix}$$

Structural change:

$$1 \dots 4 \rightarrow 1 + \text{taga-} + \left[\begin{matrix} \phi \\ \text{pag-} \\ \text{pang-} \end{matrix} \right] + 4$$

Discussion: Note that fewer actor-focus affixes participate in the derivation of this nominal than the nominals formed by PAG- and PAGKA-

Examples:

$$\text{TAGA-} + [+ \text{Actor}] + \left[\begin{matrix} \text{tulong} \\ [+ \text{Bd}, + \text{Actor}, \\ + \text{-um-}] \end{matrix} \right] \rightarrow \text{Verb base}$$

taga- + φ + tulong
 (to form *tagatulong* 'one regularly assigned to help'; 'helper')

- magising* → *tagagising* 'one who regularly wakes someone up'
- magbili* → *tagapagbili* 'one assigned to sell'
- bumili* → *tagabili* 'one assigned to buy'
- mamili* → *tagapamili* 'one assigned to buy several objects regularly'—
 i.e., 'one who regularly does the shopping'
- magpaandar* → *tagapagpaandar* 'one who regularly causes something
 (e.g., a machine) to run'

7.2. The nominalizers -AN, -IN, φ-Affix, and KA...-AN have only one form each, namely, -an, -in, deletion of the verbal affix, and *ka...-an*, respectively. The following rule generates the surface forms of these nominals.

T-19. The other nominalizers:

Structural description:

$$\begin{array}{c}
 \text{X,} \\
 \left[\begin{array}{c} \left[\begin{array}{c} \text{-AN} \\ \text{-IN} \\ \phi\text{-Affix} \end{array} \right] \\ \text{KA-...-AN (+ ma-)} \end{array} \right] + \text{Focus, } \left\{ \begin{array}{c} \text{Verb base} \\ \text{pa-} \end{array} \right\} + \text{Y} \\
 \left. \begin{array}{c} \\ \\ \\ \end{array} \right] \\
 \text{(1)} \qquad \qquad \qquad \text{(2)} \qquad \qquad \qquad \text{(3)}
 \end{array}$$

Structural change:

$$\begin{array}{c}
 1 \dots 3 \rightarrow 1 + \\
 \left[\begin{array}{c} \left[\begin{array}{c} \text{-an} \\ \text{in} \\ \phi \\ \text{ka-...-an} \end{array} \right] \\ \end{array} \right] + 3
 \end{array}$$

Examples:

-AN + [+ Actor] + *pasyal* → -an + *pasyal* (to form *pasyalan* 'place where walking for pleasure is done')

-IN ? [+ Actor] + *bili* → -in + *bili* (to form *bilihin* 'object to be bought')

φ-Affix + [+ Actor] + *gawa* → φ + *gawa* (or *gawa* 'act of making something')

φ-Affix + [— Actor] + *gawa* → φ + *gawa* (or *gawa* 'thing made by someone')

KA-...-AN + *ma-* + *ganda* → ka-...-an + *ganda* (to form *kagandahan* 'beauty')

KA-...-AN + *mangmang* → ka-...-an + *mangmang* (to form *ka-mangmangan* 'lack of schooling')

8. TRANSFORMATIONAL RULES THAT PRODUCE THE FINAL DERIVED PHRASE MARKERS OF NOMINAL PHRASES.

8.1. The relation markers *ang*, *ng-1*, *ng-2*, and *sa* may or may not occur in the surface structure, based on the Nominal chosen. The following rules apply to these relation markers and the following nominal phrases.

T-20. Singular and plural forms of the personal name marker *si*.

Structural description:

$$\begin{array}{c}
 \text{X,} \\
 \left[\begin{array}{c} [- \text{Plural}] \\ [+ \text{Plural}] \end{array} \right] \text{Number} + \text{si, Y} \\
 \text{(1)} \qquad \qquad \qquad \text{(2)} \qquad \qquad \qquad \text{(3)}
 \end{array}$$

Structural change:

$$1 \dots 3 \rightarrow 1 + \begin{bmatrix} si \\ sina \end{bmatrix} + 3$$

Examples:

si Juan 'Juan'

sina Juan 'Juan and others'

T-21. Incorporation of the relation markers and the personal name markers.

Structural description:

$$X, \left[\begin{array}{l} \begin{bmatrix} ang \\ ng-1 \\ sa \end{bmatrix} + si \\ \begin{bmatrix} ang \\ ng-1 \\ sa \end{bmatrix} + sina \end{array} \right], Y$$

(1) (2) (3)

Structural change:

$$1 \dots 3 \rightarrow 1 + \begin{bmatrix} si \\ ni \\ kay \end{bmatrix} + 3$$

$$\begin{bmatrix} sina \\ nina \\ kina \end{bmatrix}$$

Examples:

ang + si + Juan → *si Juan*

ng-1 + si + Juan → *ni Juan*

sa + si + Juan → *kay Juan*

ang + sina + Juan → *sina Juan*

ng-v + sina + Juan → *nina Juan*

sa + sina + Juan → *kina Juan*

T-22. Formation of pronouns.

T-22a. Singular and plural *ang* forms.

Structural description:

$$\begin{array}{c}
 \text{X, } \textit{ang} + \left[\begin{array}{l} [- \text{Plural}] + \left[\begin{array}{l} \text{P-1} \\ \text{P-2} \\ \text{P-3} \\ \text{P-1-2} \end{array} \right] \\ \\ [+ \text{Plural}] + \left[\begin{array}{l} \text{P-1} \\ \text{P-2} \\ \text{P-3} \\ \text{P-1-2} \end{array} \right] \end{array} \right] , \text{Y} \\
 (1) \qquad (2) \qquad (3)
 \end{array}$$

where:

P-1 = [- Third person, + Speaker, - Hearer] P

P-2 = [- Third person, - Speaker] 'you'

P-3 = [+ Third person] 'he/she'

P-1-2 = [+ Speaker, + Hearer] 'you and I'

Structural change:

$$1 \dots 3 \rightarrow 1 + \left[\begin{array}{l} \left[\begin{array}{l} \textit{ako} \\ \textit{ka} \\ \textit{siya} \\ \textit{kata/tayo} \end{array} \right] \\ \\ \left[\begin{array}{l} \textit{kami} \\ \textit{kayo} \\ \textit{sila} \\ \textit{tayo} \end{array} \right] \end{array} \right] + 3$$

T-22b. Singular and plural *ng-1* forms.

Structural description:

$$\begin{array}{c}
 \text{X, } \textit{ng-1} + \left[\begin{array}{l} [- \text{Plural}] + \left[\begin{array}{l} \text{P-1} \\ \text{P-2} \\ \text{P-3} \\ \text{P-1-2} \end{array} \right] \\ \\ [+ \text{Plural}] + \left[\begin{array}{l} \text{P-1} \\ \text{P-2} \\ \text{P-3} \\ \text{P-1-2} \end{array} \right] \end{array} \right] , \text{Y} \\
 (1) \qquad (2) \qquad (3)
 \end{array}$$

T-23. Formation of the demonstratives.

Structural description:

$$\begin{array}{ccccc}
 X, & \left[\begin{array}{c} \text{D-1} \\ \text{D-2} \\ \text{D-3} \end{array} \right] & , & Y \\
 (1) & (2) & (3) &
 \end{array}$$

Structural change:

$$1 \dots 3 \rightarrow 1 + \left[\begin{array}{c} \textit{iyan} \\ \textit{ito} \\ \textit{iyon} \end{array} \right] + 3$$

Discussion: The symbols in segment (2) of the structural description stand for the following features of the demonstratives:

D-1 = [+ Near speaker]; D-2 = [- Near speaker, + Near hearer]; D-3 = [- Near speaker, - Near hearer]. ('This', 'that, near you' and 'that, far from us', paraphrase the meanings of *ito*, *iyan*, and *iyon*, respectively.)

T-24. Singular forms of *ang*, *ng-1*, *ng-2*, and *sa* demonstratives.T-24a. *Ang* forms

Structural description:

$$\begin{array}{ccccc}
 X, & \textit{ang} + [- \text{Plural}] & , & \left[\begin{array}{c} \textit{ito} \\ \textit{iyan} \\ \textit{iyon} \end{array} \right] & + Y \\
 (1) & (2) & & (3) &
 \end{array}$$

Structural change:

$$1 \dots 3 \rightarrow 1 + 3$$

T-24b. *Ng-1* and *ng-2* forms.

Structural description:

$$\begin{array}{ccccc}
 X, & \left\{ \begin{array}{c} \textit{ng-1} \\ \textit{ng-2} \end{array} \right\} & + [- \text{Plural}] + & \left[\begin{array}{c} \textit{ito} \\ \textit{iyan} \\ \textit{iyon} \end{array} \right] & , Y \\
 (1) & (2) & & (3) &
 \end{array}$$

Structural change:

$$1 \dots 3 \rightarrow 1 + \left[\begin{array}{c} \textit{nito} \\ \textit{niyan/nyan} \\ \textit{niyon/noon} \end{array} \right] + 3$$

Example:

Nagsisigarilyo siya ng-2 + [- Plural] + ito →
Nagsisigarilyo siya nito. 'He smokes this.'

T-24c. *Sa* forms.

Structural description:

X, *sa* + [- Plural] + $\left[\begin{array}{l} \textit{ito} \\ \textit{iyan} \\ \textit{iyon} \end{array} \right]$, Y
 (1) (2) (3)

Structural change:

1...3 → 1 + $\left[\begin{array}{l} \textit{dito} \\ \textit{diyan} \\ \textit{doon} \end{array} \right]$ +3

Example:

Umuupo siya sa + [- Plural] + iyon →
Umuupo siya doon. 'He sits there.'

T-25. The plural nominal marker.

Structural description:

X, [[+ Plural]] , Nominal
 Nominal marker
 (1) (2) (3)

Structural change:

1...3 → 1 + *mga* + 3

Discussion: This rule will apply to phrase markers that do not fit the structural descriptions for rules T-20 through T-24. Specifically, this rule will apply in those cases where the Nominal in segment (3) is not a personal name, a pronoun, or a demonstrative preceded by [- Plural].

Examples:

taguan niya ng-2 + [+ Plural] + ito
 → *taguan niya ng mga ito* 'place where he keeps these.'
ang pag-aalaga niya sa + [+ Plural] + iyan
 → *ang pag-aalaga niya sa mga iyan* 'his taking care of those'.
ang pagkuha niya ng-2 + [+ Plural] + eksamen
 'his taking examinations'

T-26. The singular nominal marker.

Structural description:

X, [[- Plural]] , Y
 Nominal marker
 (1) (2) (3)

Structural change:

$$1 \dots 3 \rightarrow 1 + \phi + 3$$

Discussion: Except for the personal name marker and the pronouns, which show [+ Plural] distinctions in their surface forms, the other nominals do not have overt singular nominal markers.

Examples:

ang pagbili niya + *ng-2* + [-Plural]
 + *bahay* → *ang pagbili niya ng bahay* 'his buying
 a house'

ang pagkuha niya ng-2 + [-Plural] + *eksamen*
 → *ang pagkuha niya ng eksamen* 'his taking
 an examination'

Again, with the exception of the pronouns and the personal name marker, where the [-Plural] forms mean 'one', the feature [-Plural] generally has the meaning 'not explicitly more than one' rather than 'one'. Thus, *ang pagkuha niya ng eksamen* may mean 'his taking examinations' as well as 'his taking an examination'.

T-27. PRO deletion.

Structural description:

$$X, \left[\left[\begin{array}{c} \textit{ang} \\ \textit{ng-1} \\ \textit{ng-2} \\ \textit{sa} \end{array} \right] + (\textit{mga}) + \textit{PRO} \right], Y$$

(2) (2) (3)

Structural change:

$$1 \dots 3 \rightarrow 1 + 3$$

Discussion: This rule will generate derived nominals without any one of the substantive phrases that would occur as complements. Thus, *kagandahan* 'beauty' would be generated by choosing PRO as the nominal in the primary substantive phrase of the embedded sentence, as follows:

KA-...-AN # *Maganda* + *ang* + *Nominal* marker + PRO #

T-14: → KA-...-AN *maganda ng-2* + *Nominal* marker + PRO.

T-19: → *ka-...-an ganda ng-2* + *Nominal* marker + PRO

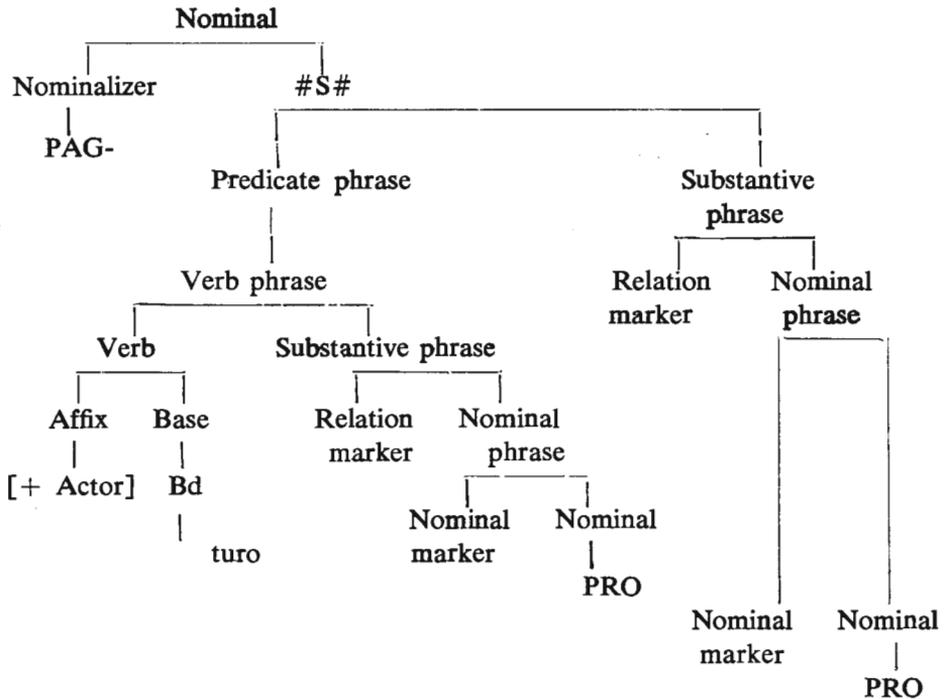
T-26: → *ka-...-an ganda ng-2* + ϕ + PRO

T-27: → *ka-...-an ganda* (to form *kagandahan* 'beauty')

Pagtuturo 'teaching' would be generated by choosing PRO in both the object expression and the primary substantive phrase of the embedded sentence, as shown in Figure 10.

Although PRO is required in the deep structures of certain derived nominals, this pro-form may be used to generate nominals with generalized meanings, as shown by the examples given above.

Fig. 10 Deep structure of *pagtuturo*, 'teaching'.



SUMMARY

This paper has presented base and transformational rules for generating certain classes of derived nominals in Tagalog. These are derived nominals that show evidences of grammatical relationships to certain simply structured basic strings of the language which produce independent sentences. These nominals may be divided into two types: those that permit all the constituents of the embedded sentences to appear in the derived nominal, forming the derived noun and its complements; and those that require the deletion (through the use of the pro-form for Nominal) of specific constituents of the embedded sentences. The pro-form may also be used to generate derived nominals with generalized meanings, such as *pagtuturo* 'teaching' or *kagandahan* 'beauty' as opposed to nominals with specific or particularized meanings, such as *pagtuturo ng propesor* 'the professor's teaching' or *kagandahan ni Maria* 'Maria's beauty'.

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