

Nouns and Verbs in Tagalog: a reply to Foley

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There is an old saying to the effect that “any English noun can be verbed.” In Tagalog too it appears that any noun can be verbed; and moreover, that any verb can be nounced. If this is true, can we really maintain a distinction between these two categories in Tagalog? As Foley (1998) points out, this question has been a matter of serious debate for almost 100 years, and opinion among specialists in Philippine languages continues to be divided.

The evidence that “any verb can be nounced” is syntactic, specifically distributional. As Foley illustrates in his examples (42), (44b), (71), and (73a), any inflected verb form can apparently function as the head of a NP. The evidence that “any noun can be verbed” is primarily morphological: Foley argues that any noun root can take verbal inflectional affixes. But there is distributional evidence as well, in that any noun can function as a clausal predicate (Foley’s ex. 45a). Thus we seem to have neither distributional nor morphological criteria for distinguishing between nouns and verbs. Foley proposes that, while it may be possible to assign fully inflected forms to one category or another, Tagalog roots are “pre-categorial”. That is, there is no distinction in the lexicon between V roots and N roots.

A second important feature of Tagalog, and Philippine-type languages generally, is their extremely rich voice system. Foley describes these voice systems as being “symmetric”. This term indicates three crucial features: (i) the lack of an unmarked voice category (there is no form of the verb which is not marked for voice); (ii) the non-demotion of agents in non-active clauses (agents always seem to function as terms, or core arguments, rather than obliques); and (iii) multiple voice categories (various types of arguments, not just direct objects, can be promoted directly to subject).

Foley makes the very interesting claim that there is a cross-linguistic correlation between these two properties, i.e. pre-categorial roots and symmetric voice systems. As evidence he points to another group of languages, those of the Pacific Northwest, which appear to exhibit a very similar constellation of properties. Foley attempts to explain this correlation by showing that pre-categoriality is a prerequisite for symmetric voice, based on the assumption that pre-categorial roots have no inherent argument structure.

Foley’s proposals obviously have major implications for the proper analysis of Philippine-type languages. They also have significant theoretical interest. For example, if he is correct that Tagalog roots are pre-categorial, then Tagalog would constitute a counter-example to the claim by Jelinek & Demers (1994) that the lack of a Noun/Verb contrast is only possible in “pronominal argument” languages, i.e. languages where only pronominal clitics and agreement affixes can function as syntactic arguments.

In this paper I will challenge several of Foley's conclusions. I will begin by presenting evidence for underlying argument structure in another Philippine-type language, Kimaragang. I will then try to show that Tagalog voice affixation has a different function on nominal roots than it does on verbal roots. This implies that Tagalog roots are not in fact pre-categorial; rather, their lexical entries must include information about their basic category (N, V, A etc.). The appearance of pre-categoriality is primarily due to three factors: (a) the common use of headless relative clauses; (b) the lack of any copular element; and (c) the fact that many verbal inflectional affixes also have highly productive derivational uses. Finally, I will question whether the Salish and Wakashan languages can truly be said to have symmetric voice in Foley's sense.

However, I believe that Foley's characterization of the symmetric voice systems of Philippine-type languages is essentially correct, and he is right that these systems pose a major challenge to many current theoretical assumptions about voice and grammatical relations. Even if his specific proposals do not provide a solution to this challenge, it seems that some equally radical approach may be needed.

1. Argument structure in Kimaragang

1.1 Distribution of the stem prefixes

Foley (pp. 16-20) discusses some Kimaragang data relating to the distribution of two verbal prefixes, *po-* and *poN-*. A number of verbal roots in Kimaragang can occur in two slightly different senses, some of which correspond fairly closely to the *spray/load* alternations in English. The contrast between the two senses is often indicated by the choice of prefix, as in the following example:

- (1) a. Ø-po-suwang okuh ditih sada sid pata'an.¹
 AV-U_i-enter 1.SG.NOM this(ACC) fish DAT basket
I will put this fish in a/the basket.
- b. Monuwang(m-poN-suwang) okuh do pata'an do sada.
 AV-U_g-enter 1.SG.NOM ACC basket ACC fish
I will fill a basket with fish.

Both of these examples involve the same basic action and the same set of arguments (agent, theme, goal). But in addition to the alternation in the case marking of the goal argument (the basket), which gets accusative case in (1b) but dative case in (1a), there is a corresponding semantic difference as well. The form Ø-*po-suwang* in (1a) could be used for a single fish, or for any specified number of fish, whether or not the basket was completely filled. The form *m-poN-suwang* in (1b) could never be used for a single fish; it requires that the basket be completely filled, and implies that there is an indefinite and large amount of fish available.

Kroeger (1996) analyzes alternations of this type as reflecting alternative perspectives from which the speaker may choose to view the same basic event. In (1a) the speaker views the action as primarily directed toward the theme, whereas in (1b) the action is viewed as primarily directed

¹The Active Voice marker is always represented by a Ø-allomorph before the prefix *po-*, whether in causative constructions or in non-causative examples like (1a).

toward the goal. The choice of perspective can be represented in terms of the alignment between thematic roles (agent, theme, goal etc.) and the “action roles” or macro-roles Actor and Undergoer (Foley and Van Valin, 1984; Jackendoff, 1987, 1990). Specifically, the perspective expressed depends on the choice of Undergoer, or “logical object”, as illustrated in (2).

(2)

- a. *po-suwang* <Agt Th Go> or b. *poN-suwang* <Agt Th Go>
 | | | |
 A U A U

When the goal is the Undergoer, as in (1b), it takes accusative case and must be interpreted as being completely affected by the action. When the theme is the Undergoer, as in (1a), it must be interpreted as being individuated as well as completely affected, while the goal takes dative case.

No matter which argument is chosen as Undergoer, any of the three arguments can be selected as Pivot (i.e. grammatical subject)² by the addition of the appropriate voice affix. In (1a-b), the Pivot is the Actor because the verbs are inflected for Active Voice. The following examples illustrate the other voice possibilities with the same root:

(3) **Goal = Undergoer**

- a. S-in-uwang-an dialo dot togilai ilo' bakul yoh.
 -PAST-enter-DV 3.SG ACC corn that(NOM) basket 3.SG.GEN
 He filled his basket up with corn.

- b. Narasak it bawang, aso noh weeg
 dried.up NOM river not.exist already water

dot ponuwang((i)-poN-suwang) do botung.
 REL IV-U_g-enter ACC rice.field

The stream has dried up, there is no water to fill the rice fields with.

Theme = Undergoer

- c. I-suwang kuh inoh parai sid kadut.
 IV-enter 1.SG.GEN that(NOM) rice DAT gunnysack
 I will put that rice into the sack.

- d. Nunuh ot p-in-o-suwang-an nuh dit togilai nuh?
 what NOM -PAST-U_i-enter-DV 2.SG.GEN ACC corn 2.SG.GEN
 What (container) did you put your corn into?

The full range of voice marking options is summarized in the following table:

²I will try to follow Foley's terminology as far as possible, e.g. referring to “Pivot” rather than “subject”. The issues underlying this terminological difference are irrelevant to the concerns of this paper. See Kroeger (1993, ch. 2) for some discussion.

(4)

Goal = Undergoer	Pivot choice	Theme = Undergoer
m-poN-suwang (AV)	AGENT	Ø-po-suwang (AV)
(i-)poN-suwang (IV)	THEME	i-suwang (IV)
suwang-an (DV)	GOAL	po-suwang-an (DV)

A similar pattern of alternations is found with the verb *taak* ‘give’. Again, there are two slightly different senses of the word which correlate with the choice of stem-forming prefix. When the theme is selected as Undergoer (*po-*), it is the theme’s change of position or location which is the most salient component of meaning. When the goal is selected as Undergoer (*poN-*), the central element of meaning is the goal’s gaining legal ownership of the theme. The first sense entails change of physical possession while the second sense entails change of ownership.

This analysis predicts that themes which cannot be physically moved should resist being selected as Undergoers with this verb. That is, since the theme-Undergoer sense of the verb entails a change of physical possession, themes which cannot be passed from one person to another should not be eligible to be Undergoers. This prediction is confirmed by examples like the following. The noun *tana*’ is ambiguous between the meanings ‘land’ and ‘dirt’. Since a piece of land cannot be physically moved (at least, not by human agency), only the latter sense is available when the verb is marked as taking a theme-Undergoer, as in (5b).

- (5) a. Mana’ak(m-poN-ta’ak) okuh dikau do tana’.
 AV-U_g-give 1.SG.NOM 3.SG.ACC ACC earth
I will give you some land.
- b. Ø-pa-ta’ak okuh dikau do tana’.
 AV-U_i-give 1.SG.NOM 3.SG.ACC ACC earth
*I will hand you some dirt (*land).*

The full paradigm for the verb ‘give’, which is essentially the same as that in (4) above, is given in the following table; see Kroeger (1996) for examples of each form.

(6)

Goal = Undergoer	Pivot choice	Theme = Undergoer
m-poN-taak (AV)	AGENT	Ø-po-taak (AV)
(i-)poN-taak (IV)	THEME	i-taak (IV)
taak-an (DV)	GOAL	po-taak-an (DV)

As a final example, consider the root *pilay* ‘throw’. This verb takes the same three arguments (agent, theme, goal) as those in the preceding examples. When the theme is selected as Undergoer (*po-pilay*), the resulting verb forms simply mean ‘throw’ as in “John threw the ball into the river”, and the goal takes oblique case marking. When the goal is selected as Undergoer (*poN-pilay*), the resulting verb forms mean ‘to throw at’ or ‘to stone’, as in “John threw sticks at the mangoes (to knock them down).” These forms require a double-object clause pattern (neither

goal nor theme are obliques). When the goal is selected as Pivot, it takes Objective Voice (like a typical patient) rather than Dative Voice:

(7)

Goal = Undergoer (‘throw at’)	Pivot choice	Theme = Undergoer (‘throw’)
m- <i>poN</i> -pilay (AV)	AGENT	Ø- <i>po</i> -pilay (AV)
(i-) <i>poN</i> -pilay (IV)	THEME	i-pilay (IV)
pilay-on (OV)	GOAL	<i>po</i> -pilay-an (DV)

The distribution of the stem prefixes *po-* and *poN-* in figures (4), (6) and (7) is quite interesting. Clearly *poN-* is associated with one sense of the verb and *po-* with the other, but in some forms neither of these prefixes is present. The generalization seems to be the following: the stem prefix appears just in case the Undergoer is not selected as Pivot.

It is tempting to assume that the stem prefixes themselves are a kind of derivational affix which determine the alignment between thematic roles and macro-roles, specifically the choice of Undergoer. However, this assumption would make it very difficult to account for the forms which have no stem prefix, e.g. *itaak* (ex. 6), especially since these forms are subject to the same semantic constraints as forms which do bear the relevant stem prefix, e.g. *pa-taak*, *pa-taak-an*. The only way around this problem would be to assume that the stem prefixes are first added, then deleted just in case the Undergoer is selected as Pivot. This proposal is so dubious that almost any other analysis would be preferable. Thus we are driven to the conclusion that the configuration of the argument structure is not derived by affixation. Rather, both of the possible argument structures, i.e. both possible alignments of thematic roles to macro-roles, are present in the lexicon before any affixation takes place.

Even under this assumption, the data in the tables above seems to present an ordering paradox, or at least a violation of the Mirror Principle (Baker, 1985). Since the presence or absence of the stem prefix depends on the selection of the Pivot (i.e. voice), the voice affix must be added first. But the stem prefix is always closer to the root than the voice affix (when one of the prefixed voice markers is selected), indicating that the stem prefix should be attached first.

This paradox can be resolved by using a modified version of the Lexical Mapping Theory (Bresnan and Kannerva, 1989). In brief, we could assume that the stem prefixes add a feature to the argument structure of the verb which makes the Undergoer unavailable to be selected as Pivot. The voice affixes add another feature which identifies a particular argument as Pivot. The choice of which voice affix is selected is constrained by the following rule: “Choose the Undergoer as Pivot if it is (definite and) available.” Stem prefixation applies first, but is optional. Given the rule system just sketched out, the Undergoer will be selected as Pivot if and only if no stem prefix is added to the verb.³

³The definiteness requirement is probably not built into the morphological process itself, but is a pragmatic restriction on lexical insertion in the syntax. The preference for Undergoers as Pivots holds at both the morphological and syntactic levels. Morphologically, it is needed to account for the transitive verb forms which have no stem prefix. Syntactically, it is one of the factors that control which verb form will be used in any particular

1.2 Applicative formation

Foley claims that in Philippine languages there is no process of applicative formation which is distinct from voice (Pivot selection). He argues (p. 29) that Philippine verb roots have no underlying argument structure: voice affixation simultaneously creates the argument structure and identifies one of the arguments as Pivot. For this reason, there is no clear distinction between core arguments and peripheral arguments or adjuncts: "... nonsubcategorized arguments like locatives and instrumentals [are] directly accessible to PIVot function without going through an intermediate applicative derivation" (p. 46).

This analysis will not work for Kimaragang. For transitive verbs of the agent-patient type, the patient is the strongly favored choice for Undergoer. Verbs of this type have an optional instrument role. Non-Pivot instruments take ACC case, as illustrated in (8a); but the instrument may also be selected as Pivot, as in (8b), in which case the verb must carry the stem prefix *poN-*.

- (8) a. Lapak-on kuh do kapak ilo' niyuw kuh.
 split-OV 1.SG.GEN ACC axe that(NOM) coconut my
I will split my coconuts with an axe.
- b. Tongoh ot pangalapak((i)-poN-lapak) nuh dilo' niyuw?
 what NOM IV-U_g-split 2.SG.GEN that(ACC) coconuts
What will you split those coconuts with?

Under unusual circumstances, the instrument (rather than the patient) may be selected as Undergoer. This construction is used where the speaker is chiefly interested in the effect of the action on the instrument rather than the patient. In the following example, the implication is that the action will be harmful to the instrument (the bush knife). Another possible use would be to talk about chopping something with an axe to test its sharpness. Notice that no stem prefix appears on the verb in (9), since the Undergoer (the instrument) is selected as Pivot:

- (9) a. Noko-rasang okuh dialo tu'
 PERF-angry 1.SG.NOM 3.SG.ACC because
- n-i-tibas do pampang it dangol kuh.
 PAST-IV-slash ACC stone NOM bush.knife my
I got angry at him for slashing a rock with my bush knife.

The full paradigm for the verb *tibas* 'slash' is given in the following table:

syntactic and discourse context. Foley and Van Valin (1984, pp. 139-40) describe these principles in the following terms:

"Focused NPs [i.e., Pivots —PRK] in all Philippine languages must be referential and are normally definite. ... If a patient or Undergoer is definite, then it must be in focus."

Many other authors have noted the "patient preference" of the Philippine languages as well, citing evidence from text frequency and order of acquisition in addition to morphological and syntactic evidence.

(10)

Patient = Undergoer	Pivot choice	Instr. = Undergoer
<i>m-poN-tibas</i> (AV)	AGENT	\emptyset - <i>po-tibas</i> (AV)
<i>tibas-on</i> (OV)	PATIENT	<i>po-tibas-an</i> (DV)
(i-) <i>poN-tibas</i> (IV)	INSTRUMENT	<i>i-tibas</i> (IV)

Kroeger (1996) refers to the argument structure configuration in which the instrument is selected as Undergoer as the INSTRUMENTAL APPLICATIVE construction. The crucial point for our present purposes is that the modification of argument structure is independent of voice affixation. As the table in (10) demonstrates, the instrument may be aligned with the Undergoer macro-role whether or not it is selected as Pivot and whether or not a stem prefix is present. So applicative formation is morphologically unmarked, like the Dative Shift or Locative Alternations in English. The changes to argument structure take place before any affix is added to the root.

The LOCATIVE APPLICATIVE construction creates transitive verbs from intransitive roots, e.g. ‘sit’ > ‘sit on’; ‘sleep’ > ‘sleep at (to guard)’; ‘swim’ > ‘swim for (to fetch)’; etc. A sample paradigm for the verb ‘sit’ is given in the following table:

(11)

Intransitive (no U)	Pivot choice	Loc. = Undergoer
<i>m-ogom</i> (AV)	AGENT	<i>m-poN-ogom</i> (AV)
<i>ogom-on</i> (LV) ⁴	LOCATION	<i>ogom-an</i> (DV)

In the basic intransitive sense there is no Undergoer, and so no stem prefix occurs in any voice. Applicative formation alters the argument structure by marking the locative argument as Undergoer, creating a transitive verb. When the locative Undergoer is not selected as Pivot, the verb must bear the stem prefix *poN-*. Once again we see that applicative formation is prior to, and independent of, voice or any other specific affixation.

The pattern with the BENEFACTIVE APPLICATIVE construction is somewhat different, in that the applied Undergoer (the Benefactive) must be selected as Pivot. Kroeger (1996) suggests that this is due to a morphological blocking principle. This blocking effect avoids the potential ambiguity of the Active Voice form, which would otherwise be *m-poN-V* for both the basic transitive and the benefactive applicative senses of the root.

To summarize, the distribution of the Kimaragang stem prefixes *po-* and *poN-* reveals two important facts. First, argument structure (including the alignment of arguments to macro-roles) is determined prior to any affixation. Second, applicative formation involves modifications of the argument structure which are prior to, and independent of, voice (or any other) affixation.

⁴The Locative Voice suffix *-on* is homophonous with the Objective Voice marker in non-past tense. The two are distinct in past tense and non-volitional forms, where Objective Voice takes a \emptyset -allomorph.

1.3 Stem prefixes in Tagalog

It seems unlikely that the details of the analysis just presented for Kimaragang can be extended to Tagalog. Nevertheless, there are some interesting patterns in the distribution of the Tagalog stem-forming prefixes, *pag-* and *paN-*.

Foley (pp. 67-68) points out that the form of an aspectless gerund is predictable from the form of the corresponding Actor Pivot verb form. He interprets this to mean that the gerunds must be derived from the Actor Pivot forms, i.e. that voice affixation must precede the formation of gerunds. However, it turns out that the same correlation is found in a large number of other forms as well. Some of these, taken from Schachter and Otnes (1972) and using their labels for the most part, are given in the following table. (Following de Guzman (1992, 1996) I assume that the Actor Pivot voice markers *mag-* and *maN-* are underlyingly composed of the voice marker *-um-* ~ *m-* plus a stem affix *pag-* or *paN-*.)

(12)

Actor Focus	Causative (Causee Piv)	AIA ⁵ (Actor Piv)	Social Verb	Pluralized Verb	Agentive nominalization
-um-	pa-V-in	maka-	maki-	magsi-	taga-
m-pag-	pa-pag-V-in	maka-pag-	maki-(pag)-	magsi-pag-	taga-pag-
m-paN-	pa-paN-V-in	maka-paN-	maki-paN-	magsi-paN-	taga-paN-

Actor Focus	Recent perfective ⁶	Perfective Gerund	Aspectless Gerund
-um-	ka-DUP-	pagka-	pag-
m-pag-	ka-pag-DUP-	pagka-(pag)-	pag-DUP-
m-paN-	ka-paN-DUP-	pagka-paN-	paN-DUP-

The stem-forming prefixes also occur in several of the “adjunct Pivot” constructions, i.e. voice forms in which a peripheral argument or non-argument is selected as Pivot though some of these forms may actually be nominalizations.⁷

⁵“AIA” stands for “Ability and Involuntary Action”. Kroeger (1993) refers to these forms as “non-volitive”.

⁶The CV reduplication prefix may occur either before or after the stem prefix in these forms.

⁷Notice that the Instrumental Focus form is not included in the following table. For most roots, Instrumental Focus is marked by the prefix *i-paN-*. Schachter and Otnes (pp. 218-221, 319-321) state that these forms are derived from instrumental adjectives, which are in turn derived from verbal roots by adding the prefix *paN-*. An example would be: *bili* ‘buy’ > *pambili* (adj.) for use in buying’ > *pambili* (v) ‘buy with’; the latter form appears in Foley’s example (1d).

(13)

Actor Pivot	Benefactive Focus	Reason Focus ⁸	Locative Focus	Referential Focus
-um-	i-	i(ka)-	pag-V-an	***
m-pag-	i-pag-	i(ka)-pag-	pag-V-an	pag-V-an
m-paN-	i-paN-	i(ka)-paN-	paN-V-an	***

Clearly the stem prefix which a given verb bears in its Actor Pivot form is also found in a fairly wide range of other forms. But it is difficult to imagine a coherent analysis based on the claim that all of these forms are derived from the Actor Pivot form. Even if this were possible, such an analysis of the “adjunct Pivot” forms in (13) would contradict Foley’s account of applicative formation, which was quoted in the preceding section.

It is quite common for a single verb root to occur in more than one stem form, each stem corresponding to a distinct sense of the root. Examples include transitive-intransitive pairs such as *mamatay* ‘die’ vs. *pumatay* ‘kill’; transitive-ditransitive pairs such as *umabot* ‘reach for’ vs. *magabot* ‘hand to someone’; reciprocal forms such as *bumili* ‘buy’ vs. *magbili* ‘sell’; etc. But as was the case in Kimaragang, we cannot in general analyze the stem prefix itself as signalling the derivation of these various senses. This is because the stem prefix is normally not present when the Pivot is a non-Actor core argument.

A few representative examples are given in the following tables:

(14)

Pivot choice	‘hold’	‘catch’	‘cut’	‘close’	‘open’	‘cook’
AGENT	h-um-awak	h-um-uli	m-pag-hiwa	m-pag-pinid	m-pag-bukas	m-pag-luto
PATIENT	hawak-an	hulih-in	hiwa-in	i-pinid	buks-an	lutu-in / i-luto

Pivot choice	‘give’	‘bring’	‘throw (at)’	‘enter’	‘bring into’
AGENT	m-pag-bigay	m-pag-dala	m-pag-pukol	p-um-asok	m-pag-asok
THEME	i-bigay	dalh-in	i-pukol	***	i-pasok
GOAL	bigy-an	dalh-an	pukul-in	pasuk-in	pasuk-an

A few stems exceptionally bear the stem prefix *pag-* in all voices. One common example is the word meaning ‘sell’, which is distinguished from the word for ‘buy’ only by the presence of the stem prefix:

⁸Schachter and Otnes (p. 313) label these forms “Causative Focus”.

(15)	'buy'	Pivot choice	'sell'
	b-um-ili	AGENT	m-pag-bili
	bilh-in	THEME	i-pag-bili
	bilh-an	SOURCE/GOAL	pag-bilh-an
	i-bili	BENEFACTIVE	*** (?)

But for the vast majority of *pag-* verbs, the stem prefix does not occur when the Pivot is a core argument other than the Actor.⁹ At the very least, this fact seems to indicate that there must be a distinction between underlying arguments and adjuncts in Tagalog grammar.

2. Syntactic categories in Tagalog: Distributional evidence

The distributional similarities mentioned above between nouns and verbs in Tagalog apply equally to adjectives and even PPs. Each of the four categories may appear as (i) a clausal predicate, (ii) a modifier within the NP, or (iii) a noun phrase. The data in examples (16) - (18), taken from Schachter and Otnes (1972), illustrates this sameness of distribution. Example (16) shows simple clauses in which the predicate is an adjective (a), a noun (b), a PP (c) and a verb (d):

- (16) a. Maganda ang=babae.
 beautiful NOM=woman
The woman is beautiful.
- b. Bato ang=bahay.
 stone NOM=house
The house is stone.
- c. Nasa mesa ang=libro.
 at.DAT table NOM=book
The book is on the table.
- d. Nagbabasa ng diyaryo ang=babae.
 AV-read GEN=newspaper NOM=woman
The woman is reading a newspaper.

Modifiers within a NP can occur either before or after the head noun. In either case, the modifier is joined to the head by a linking particle which has two allomorphs: *na* after consonants and *=ng* after vowels. Modifiers may be adjectives, nouns, PPs or verbal clauses which lack an independent Pivot. NPs which contain clausal modifiers are, of course, Relative Clauses, and the Pivot is always the relativized position.

⁹Most of the *paN-* verbs seem to be intransitive, and the few which can occur in other voices seem to be split about equally between those which retain the stem prefix and those which do not.

(17) a. **Adjective modifiers**

ang NOM	maganda=ng beautiful=LNK	babae woman	ang babae=ng maganda	<i>the beautiful woman</i>
ang NOM	maliit na small LNK	bahay house	ang bahay na maliit	<i>the small house</i>

b. **PP modifiers**

ang NOM	nasa on	mesa=ng table=LNK	libro book	ang libro=ng nasa mesa	<i>the book on the table</i>
angpara NOM	sa for	titser teacher	na regalo LNK gift	ang regalo=ng para sa titser	<i>the gift for the teacher</i>

c. **Nominal modifiers**

ang NOM	bahay house	na LNK	bato stone	?ang bato=ng bahay ¹⁰	<i>the stone house</i>
ang NOM	larua(n)=ng toy=LNK	kalan stove		?ang kala(n)=ng laruan	<i>the toy stove</i> (toy is head N)

d. **Clausal modifiers (Rel. Cl.)**

angpagkai(n)=ng NOM food=LNK	niluto cook.PERF.OV	mo 2.SG.GEN	ang niluto mo=ng pagkain	<i>the food which you cooked</i>	
angnagbabasa NOM read.IMPERF.AV	ng GEN	diyaryo=ng newspaper=LNK	babae woman	ang babae=ng nagbabasa ng diyaryo	<i>the woman who is reading a newspaper</i>

The NPs in (18b, c, d) illustrate how adjectives, PPs and verbal clauses can be used as nominal elements simply by adding a case marker to their left. The plural marker is used in these examples to make their status as NPs obvious. Examples like (18d) are often referred to as “nominalized clauses”, and form the major part of the basis for the claim that “any verb can be nouned” in Tagalog.

- (18) a. ang mga babae *the women*
NOM PL woman
- b. ang mga bago *the new ones*
NOM PL new
- c. ang mga para sa iyo *the ones for you*
NOM PL for DAT you(SG)

¹⁰Schachter and Otnes (1972, p. 120) state that a noun modifier normally follows the head noun. Pre-nominal position is fully natural only when it is contrastive, e.g. to contrast a stone house with another kind of house.

- d. ang mga binili ko *the ones I bought*
 NOM PL buy.PERF.OV 1.SG.GEN

The only structural difference between the NPs in (18b, c, d) and those (17) is that the NPs in (17) contain a head noun, whereas those in (18) do not. This suggests that (18b, c, d) are best analyzed as headless relative clauses. The parallelism between the function of the modifying elements in NPs with heads vs. those without is made explicit in the following examples:

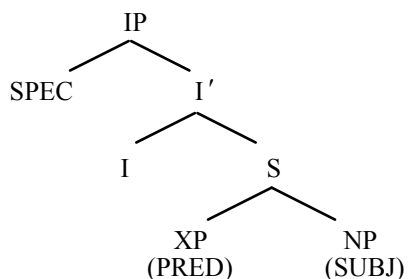
(19) a.	ang mga baro=ng binili NOM PL dress=LNK buy.PERF.OV	<i>the dresses I bought</i>
	ko 1.SG.GEN	
	ang mga Ø binili ko NOM PL buy.PERF.OV 1.SG.GEN	<i>the ones I bought</i>
b.	ang babae=ng nagbabasa NOM woman=LNK buy.PERF.OV	<i>the woman reading a newspaper</i>
	ng diyaryo GEN newspaper	
	ang Ø nagbabasa ng diyaryo NOM buy.PERF.OV GEN newspaper	<i>the one reading a newspaper</i>
c.	ang libro=ng nasa mesa NOM book=LNK on table	<i>the book on the table</i>
	ang Ø nasa mesa NOM on table	
	ang mga tao=ng mahihirap NOM PL person=LNK poor	<i>the poor people</i>
	ang mga Ø mahihirap NOM PL poor	<i>the poor</i>

The fact that there is no copula¹¹ in non-verbal clauses such as (16b, c, d) seems to offer further support to the hypothesis that there is no distinction to be made between the categories N, V, Adj and perhaps even P, since all of these elements can appear as the predicate in the same basic clause pattern. (Jelinek & Demers (1994) make exactly this argument with respect to Salish.) However, it turns out that there is an important structural difference between verbal and non-verbal clauses in Tagalog.

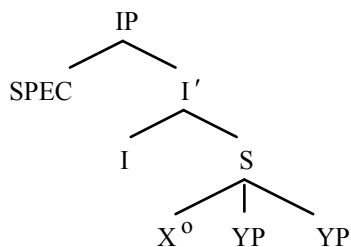
¹¹Some authors have argued for the presence of a null copula in various languages which have similar clause patterns. This analysis will not work for Tagalog. One argument against the presence of a null copula is based on the potential for discontinuous (non-configurational) predicate phrases like those in examples (6-8). If there were a null copula in supposedly non-verbal clauses, then what appears to be the predicate phrase would actually be a predicate complement. However, there are a number of real verbs in Tagalog which take predicate complement NPs, PPs and AdjPs. These predicate complement phrases are never discontinuous; they always form a single constituent in the phrase structure. Thus if the hypothetical null copula were assumed to be a verb, there would be no explanation for why its predicate complements can be discontinuous, while those of every other verb cannot.

Kroeger (1993) argues that Tagalog clauses exhibit two different phrase structure patterns: the CONFIGURATIONAL structure in (20a), in which the predicate phrase forms a constituent distinct from the subject; and the NON-CONFIGURATIONAL (or “flat”) structure in (20b), in which the word order is quite free provided the lexical head of the predicate (X^0 , which may be a verb, noun, adjective or preposition) is the first element within the small clause S.

(20) a. S with predicate-subject configuration



b. flat structure for S



The (a) sentences in the following three examples illustrate the configurational structure in (20a), with the predicate phrase forming an unbroken constituent. The (b) sentences in these examples illustrate the non-configurational structure in (20b), with the subject and other elements appearing “inside” the predicate phrase.

(21) **NP predicate** (from Sityar, 1989)

- a. [Anak ni=Belen] si=Romy talaga.
 child GEN=Belen NOM=Romy really
Romy is really Belen's son.

b. Anak talaga si=Romy ni=Belen.

(22) **PP predicate** (from Sityar, 1989)

- a. [Galing sa=Maynila] si=Ben dati.
 from DAT=Manila NOM=Ben previous
Ben is from Manila originally.

b. Galing dati si=Ben sa=Maynila.

(23) **AdjP predicate** (from Schachter and Otones, 1972)

- a. [Takot sa=kulog] si=Jessica.
 afraid DAT=thunder NOM=Jessica
Jessica is afraid of thunder.

b. Takot si=Jessica sa=kulog.

But given the free word order associated with the non-configurational clause structure, one might object that the structure in (20b) would allow for both the (a) and the (b) sentences above. These examples by themselves do not force us to recognize any configurational structure at all.

The evidence for the configurational structure in (20a) comes from clitic placement. Sityar (1989) points out that a clitic pronoun will never appear in sentence-final position if there is another possible site available. So the final pronouns in the (a) examples below show that the predicate phrases in these sentences form single constituents, as represented in (20a), which the clitic cannot “invade”. The (b) examples, in contrast, correspond to the structure in (20b), with clitic pronouns immediately following the lexical head of the predicate.¹²

(24) **PP predicate** (from Schachter and Otones, 1972)

- a. [Galing sa=Maynila] siya.
 from DAT=Manila 3.SG.NOM
He is from Manila.

b. Galing siya sa=Maynila.

(25) **AdjP predicate** (from Schachter and Otones, 1972)

- a. [Takot sa=kulog] siya.
 afraid DAT=thunder 3.SG.NOM
He is afraid of thunder.

b. Takot siya sa=kulog.

(26) **NP predicate** (adapted from Ramos, 1971, p. 173)

- a. [Matanda ko=ng kapatid] siya.
 old my=LNK sibling 3.SG.NOM
He is my older brother.

b. Matanda ko siya=ng kapatid.

With these facts in mind, let us consider the structure of verbal clauses. In contrast to the non-verbal clauses illustrated above, only one pattern of clitic placement is possible with verbal clauses (see also Foley’s examples (77-78)):

¹²Foley also cites these examples in his (74-76).

(27) a. Bumili ka ba ng=palay?
 AV.PERF-buy 2.SG.NOM Q GEN=rice
 Did you buy some rice?

b. *Bumili ng=palay ka ba?

(28) a. Hinagkan ako ng=Nanay.
 PERF-kiss-DV I(NOM) GEN=mother
 I was kissed by mother.

b. ??Hinagkan ng=Nanay ako.

Examples like these show that neither the verb plus its object (27) nor the verb plus its actor (28) form a constituent which can “host” a clitic. No other combination of verb plus arguments forms such a unit either. In other words, only the non-configurational structure in (20b) is available for verbal clauses.

This difference between verbal and non-verbal clauses provides a clear distributional test for distinguishing between verbs and all other lexical categories: only a verb can function as the predicate of a verbal clause.¹³

3. Lexical categories in Tagalog: Morphological evidence

Within a strict lexicalist framework, the distributional facts discussed in the preceding section are largely irrelevant to Foley’s core proposals. Syntactic distribution is a property of fully inflected words, whereas Foley’s pre-categoriality proposal applies only to root forms. Thus it seems that this issue must be decided primarily on morphological grounds.

Schachter (1985) pointed out a simple morphological test for distinguishing verbs from other parts of speech: only verbs can be inflected for aspect. (This fact also provides an additional means of identifying verbal clauses: the predicate of a verbal clause is obligatorily inflected for voice and, aside from imperative clauses, aspect.) However, once again this test is not directly relevant to Foley’s hypothesis, since it applies only to fully inflected words and not roots. All verbs can be inflected for aspect, whether they are derived from verbal, nominal, or adjectival roots.

A simple test which does seem useful for distinguishing between nominal and verbal roots is that voice is obligatory for verbal roots, but (obviously) not for nominal roots. I will argue that this contrast is just one symptom of a deeper and more systematic difference.

The key issue here is the function of the voice markers and the morphological process(es) involved when they are added to a root. Foley suggests that the voice affixes have only one function, namely to derive verbs from pre-categorial roots (nominalizations involving these affixes being created through a secondary process). He goes on to argue that the same function is

¹³De Guzman (1996) mentions other distributional tests for identifying verbs. One of these is that certain adjectives, when they appear as clausal predicates, allow or require a complement V which is joined to the adjective by a special linking particle. Kroeger (1993) referred to these Adj + V combinations as complex predicates.

involved whether the root is semantically nominal or verbal.¹⁴ In both cases, the addition of the voice marker triggers three changes: (i) the semantic representation of the resulting stem acquires an Event variable <E>, which marks it as being a verb; (ii) the stem acquires an argument structure; and (iii) one argument is selected as Pivot. This derived verbal form can then be changed into a noun by being used as the head of NP. Thus there is no need, and in fact no basis, for distinguishing between nominal and verbal roots.

I will argue for a quite different position. I believe that the voice markers are used in two distinct ways. Voice has many of the features commonly associated with inflectional morphology when used with verbal roots, but exhibits many features characteristic of derivational morphology when used with nominal roots. But before looking at the evidence for this claim, let us briefly consider the status of another derivational process in Tagalog, namely nominalization.

3.1 Nominalization

Foley (p. 30) states:

... clear cases of lexical derivational processes of nominalization are actually impossible to find in the language [i.e. Tagalog], in spite of the fact that nominalization is an extremely common derivational process crosslinguistically. All morphemes which could be claimed to derive nominals are also used with derived verb forms: there are *no* unique nominalization affixes, a highly salient typological fact.

The last part of this claim is probably not literally true. One affix which seems to function only as a nominalizer is the prefix *taga-*. When added to verbal roots or stems, it forms agentive nominals which Schachter and Otnes gloss as meaning ‘the person employed or delegated to perform the action’. When affixed to locative nominals, it creates forms meaning ‘person from X’. The following examples are from Schachter and Otnes (1972, pp. 105-6).

(29)	<i>bili</i>	<i>to buy</i>	<i>tagabili</i>	<i>buyer</i>
	<i>luto</i>	<i>to cook</i>	<i>tagaluto</i>	<i>cooker</i>
	<i>sulat</i>	<i>to write</i>	<i>tagasulat</i>	<i>writer</i>
	<i>pag-turo</i>	<i>to teach</i>	<i>tagapagturo</i>	<i>teacher</i>
	<i>paN-kahoy</i>	<i>gather firewood</i>	<i>tagapangahoy</i>	<i>gather firewood</i>
	<i>Maynila</i>	<i>Manila</i>	<i>taga-Maynila</i>	<i>person from Manila</i>
	<i>Amerika</i>	<i>America</i>	<i>taga-Amerika</i>	<i>person from America</i>

But Foley’s point is that the overwhelming majority of nominalizations in Tagalog are formed with affixes which also occur as verbal affixes (the voice markers in particular, but also the causative prefix and several others). This observation is presented in support of his claim that nouns are not formed in the lexicon, but in the syntax: any word becomes a noun when it occurs in a nominal position, specifically when it is governed by a Determiner (i.e. a case

¹⁴One could object that it is artificial to concentrate on N and V while ignoring Adj, since all the distributional and morphological evidence discussed thus far applies equally to adjectives. However, there do seem to be fairly clear morphological tests for distinguishing adjectival roots from other classes; see de Guzman (1996) for some of the relevant criteria.

marker). This is part of the reasoning behind his statement (p. 35) that the voice marking affixes in Tagalog “derive verbs primarily and any nominal uses are strictly secondary.”

Of course, the fact that certain affixes may have more than one function, or that two distinct affixes may be homophonous, is not of itself very significant. In English, for example, the suffix *-ing* is used not only to mark verbal participles and gerunds, but also to derive nouns and adjectives. Homophonous affixes include agentive *-er* and comparative *-er*, plural *-s* and third person singular present tense *-s*. The crucial question is, can we identify purely morphological processes of nominalization in Tagalog? Are there derived nominal forms which are nouns purely because of their morphological structure or derivational history, regardless of distribution?

Foley’s claim (quoted above) that there are no such processes is a bit hard to understand, given the fact that he provides a number of instances of this type of nominalization in his example (38). *** don’t understand Foley’s position !! *** Of course, it is important to distinguish lexical nominalizations of this type from the Headless Relative Clause construction exemplified in (18-19), in which an entire clause (minus its Pivot) is nominalized. In the latter construction it is quite appropriate to speak of the apparent nominalization as a syntactic process.

I would suggest that we can distinguish two quite distinct uses for certain affixes in Tagalog: one purely verbal and inflectional, the other derivational. Let me illustrate this point first with a simple example from Kimaragang. In Kimaragang the infix *-in-* (which marks realis aspect in Tagalog) is used as a simple past tense marker with verbal forms. However, it can also be used to derive nominalized forms from verbal, adjectival or nominal roots:¹⁵

(30) a. **Noun roots:**

walay	<i>house</i>	winalay	<i>spider web</i>
pampang	<i>rock</i>	pinampang	<i>rocky place (village name)</i>
sobu’	<i>urine</i>	sinobu’	<i>bladder</i>
tee (<ta’i)	<i>feces</i>	tinee	<i>intestine</i>

b. **Adjective roots:**

sundu	<i>supernatural</i>	sinundu	<i>supernatural power</i>
sodu	<i>far</i>	sinodu ¹⁶	<i>distance</i>
lasu	<i>hot</i>	linasu	<i>heat, temperature</i>
basag	<i>strong</i>	binasag	<i>strength</i>
lanji	<i>beautiful</i>	linanji	<i>beauty</i>

c. **Verb roots:**

liking	<i>preserve with salt</i>	liniking	<i>salt fish</i>
salaw	<i>to dry, smoke (meat)</i>	sinalaw	<i>dried meat or fish</i>
reet	<i>pronounce; call</i>	rineet	<i>ritual chant</i>

Aside from the change of category, nominalization differs from the inflectional use of the infix in its semantic effect. When the past tense marker is added to a verb, no other change of

¹⁵This process is apparently no longer productive in Kimaragang, but remains productive in several closely related languages.

¹⁶Not used in Kimaragang, but found in many related dialects.

meaning is involved. But as the examples above illustrate, nominalization typically involves a semantic narrowing, often in unpredictable ways. There are some apparent cases of nominalization where there is no synchronic semantic relationship between the nominalized form and its presumed root (*tipu* ‘break’ ?> *tinipu* ‘bride-price’). There are other cases where no corresponding root form exists in the language at this time (*binatang* ‘longhouse’; *kinomol* ‘tapioca wine; *tinacak* ‘oil’).

Sometimes this process produces forms which are ambiguous, in that the resulting nominalization is homophonous with a past tense Objective Voice verb:

(31)	<i>rapa’</i>	<i>to boil, cook</i>	<i>rinapa’</i> (V)	<i>was boiled</i>
			<i>rinapa’</i> (N)	<i>viand; cooked food</i> <i>(usually meat)</i>
	<i>tukul</i>	<i>to strike, hit</i>	<i>tinukul</i> (V)	<i>was hit</i>
			<i>tinukul</i> (N)	<i>brass container</i>
	<i>torodok</i>	<i>plant rice seed</i>	<i>tinorodok</i> (V)	<i>was planted</i>
			<i>tinorodok</i> (N)	<i>rice seedlings</i>

Similar examples are found in Tagalog involving the suffixes *-in* and *-an*. In addition to nominalizations of verbal roots like those cited by Foley, *-an* can be added to nominal roots as well. The following examples are from Schachter and Otnes (1972, p. 98) and de Guzman (1996):

(32) a. **Noun roots:**

<i>aklat</i>	<i>book</i>	<i>aklatan</i>	<i>library</i>
<i>gulay</i>	<i>vegetable</i>	<i>gulayan</i>	<i>vegetable garden</i>
<i>bigas</i>	<i>uncooked rice</i>	<i>bigasan</i>	<i>place for storing rice</i>
<i>ta’o</i>	<i>person</i>	<i>ta’uhan</i>	<i>employee(s)</i>

b. **Verb roots:** (= Foley’s (38c))

<i>hiram</i>	<i>borrow</i>	<i>hiraan</i>	<i>place to borrow from</i>
<i>tagu</i>	<i>hide</i>	<i>taguan</i>	<i>hiding place</i>
<i>giik</i>	<i>thresh</i>	<i>giikan</i>	<i>threshing place</i>

There are no verbal forms corresponding to the nominalizations in (32a). Thus these forms cannot be derived from verbs by the kind of syntactic process Foley proposes. The only plausible source seems to be a lexical process of nominalization.

When nominalizations are formed by adding one of these suffixes to a verbal root, the derived noun may be homophonous with an infinitival Objective Voice verb, e.g. *awitin* (N) ‘song’; (V) ‘to be sung’. But in other cases, as Himmelmann (1991) and Foley (pp. 34-35) point out, there are often differences in stress placement which serve to distinguish the nominal and verbal forms (33a). There may be other phonological differences as well, such as the contrast in application of the vowel deletion rule in (33b). Or the nominalization and corresponding verbal form may bear different suffixes (see Foley, p. 34 for examples).

(33) a. **stress placement**

hiram	<i>to borrow</i>	(N) hiráman (V) hiramán	<i>place to borrow from</i> <i>to borrow from (someone)</i>
aral	<i>to study</i>	(N) aralín (V) arálin	<i>lesson</i> <i>to study (something)</i>
tahi'	<i>to sew</i>	(N) tahi'an (V) tahi'án	<i>tailor's shop</i> <i>sew (something)</i>
ta'o	<i>person</i>	(N) ta'uhín (V) ta'úhin	<i>sex of newborn child</i> <i>to treat like a human being</i>
tapon ¹⁷	<i>to throw</i>	(N) tapunán ng basura (V) tapúnan	<i>garbage dump</i> <i>to throw (goal Pivot)</i>

b. **vowel deletion**

bili	<i>to buy</i>	(N) bilíhin (V) bilhín	<i>something to buy</i> <i>to buy (theme Pivot)</i>
		(N) bilíhan (V) bilhán	<i>market; selling price</i> <i>to buy (locative Pivot)</i>
bigay	<i>to give</i>	(N) bigáyan (V) bigyán	<i>mutual exchange of gifts</i> <i>to give (Recipient Pivot)</i>

The examples in (33a-b) show that the same affix can be added to the same root to produce two words which differ both in syntactic category and (at least potentially) in semantic content. The phonological and morphological contrasts illustrated above cannot plausibly be determined by syntactic context, but must be specified at the word level. Therefore the syntactic category of each form is also fixed at the word level, rather than being dependent on phrase structure position.

The conclusion, then, is that the suffixes *-in* and *-an* can be used derivationally to produce nominalized forms. When the nominalization involves a verbal root, the same combination of root plus affix may also occur as an infinitival verb, which can then be further inflected for aspect etc.; but this is by no means always the case. Thus the nominalizing function of these suffixes is independent of their voice-marking function.

I have claimed that the nominalized forms above are derived in the lexicon via a purely morphological process. Further support for this position comes from the observation by Himmelmann (1991, p. 33) that there are no nominalizations of this kind involving the voice markers *i-* or *-um-*. This gap is quite significant, because verbs bearing these affixes can appear freely in NP positions as part of a Headless Relative Clause. Thus we see that there are two different sources in the grammar for “nominalized” verbs: the first is a lexical process which derives words belonging to category N; the second is a syntactic process which inserts clauses containing fully inflected verbs into NP positions. Any verbal affix can appear on verbs in the

¹⁷This example from de Guzman (1996).

second of these types, but only certain affixes (not including *i-* and *-um-*) can be used for lexical nominalizations.

3.2 Verbal derivation vs. voice inflection

In the preceding section we saw that certain of the voice affixes can be used to derive nouns from either nominal or verbal roots. In a similar way, fully inflected verbs can be formed from either class. Foley cites this fact as a major part of his motivation for denying the distinction between nominal and verbal roots.

But when we examine the function of the voice affixes carefully, I believe we can identify two different patterns of behavior depending on the category of the root. The verbal affixation of Tagalog is notoriously complex, and this brief paper cannot begin to do justice to the subject. (See Ramos (1974) and de Guzman (1978) for fuller treatments.) In particular, Tagalog exhibits less semantic regularity in the use of the voice markers than is found in many other Philippine-type languages. However, I believe that even in Tagalog it is possible to demonstrate a fairly clear difference in the use of these affixes between verbal and nominal roots. The kinds of evidence which support this claim can be summarized as follows:

(34) with V roots:

- a. voice is obligatory and productive
- b. all arguments can be selected as Pivot (for most verbs)
- c. voice affixes which select core arguments do not affect lexical meaning

with N roots:

- a. voice is optional and lexically governed (allowed on many but not all roots)
- b. voice is sporadic, with many gaps in paradigms
- c. voice is semantically unpredictable (changes meaning in unpredictable ways)
- d. different voice markers may induce very different meanings

As noted above, the first point in this table provides the simplest and most obvious morphological test for distinguishing between nominal and verbal roots. Most verb roots in Tagalog never occur in their base (unaffixed) form.¹⁸ When used in their most basic sense (ignoring gerunds, for the moment), they must be inflected at least for voice.

Noun roots, on the other hand, occur most frequently in their base form, and it is this unaffixed form which expresses the basic lexical meaning of the root. Voice affixation with nominal roots is sporadic and lexically determined: many noun roots can be inflected as (derived) verbs, but by no means all. So it is actually not the case that “any noun can be verbed” in the morphological sense. And there seems to be no way to predict which roots have corresponding verbal forms and which ones don’t, as the following examples illustrate:

¹⁸A handful of roots are found which do in fact occur without voice affixation; see section 5 below. Himmelmann (1991) points out that some intransitive roots can appear without inflection as Actor Pivot imperatives. (This is the normal intransitive imperative form in Kimaragang.) Schachter and Otones (1972, pp. 165-8) show that bare verb roots can, in a few very specific constructions, undergo a kind of zero nominalization to express time, place or manner.

(35) a.	bigas	<i>husked rice</i>	mag-bigas bigas-in	<i>to mill /remove husk from rice</i> <i>to mill /remove husk from rice</i>
	palay	<i>unhusked rice;</i> <i>rice plant (padi)</i>	*mag-palay *palay-in	
b.	kamay	<i>hand</i>	mag-kamay kamay-an kamay-in	<i>to shake hands; eat with hands</i> <i>to shake hands; eat with hands</i> <i>to use ones bare hands</i>
	paa	<i>foot, leg</i>	*mag-paa *paa-hin paa-han	<i>(v) to put legs on (chair, table)</i>

Secondly, voice affixation does not change the basic meaning of a verbal root, at least when it selects one of the core arguments as Pivot. However, voice affixation always changes the basic meaning of a nominal root, often in unpredictable ways. Some typical voice paradigms with verbal roots are give in (36).

(36)	bigay	<i>give</i>	mag-bigay i-bigay bigy-an	<i>to give (Actor Pivot)</i> <i>to give (Theme Pivot)</i> <i>to give (Recipient Pivot)</i>
	bugbog	<i>beat</i>	b-um-ugbog bugbug-in	<i>beat (Actor Pivot)</i> <i>beat (Patient Pivot)</i>
	gapos	<i>tie, bind</i>	g-um-apos gapus-in i-gapos	<i>bind (Actor Pivot)</i> <i>bind (Patient Pivot)</i> <i>tie to something (Theme Pivot)</i>
	hagis	<i>throw</i>	mag-hagis i-hagis hagis-an hagis-in	<i>throw (Actor Pivot)</i> <i>throw (Theme Pivot)</i> <i>throw to (Recipient Pivot)</i> <i>throw at, stone (Patient Pivot)</i>

Contrast these with the semantically irregular verbal forms derived from nominal roots in (37):

(37) a.

aso	<i>dog</i>	mag-aso mang-aso asu-hin	<i>to raise or care for dogs (Actor Pivot)</i> <i>to hunt with dogs (Actor Pivot)</i> <i>to flatter, deceive (Patient Pivot)</i>
isda	<i>fish</i>	(?)mag-isda mang-isda *?isda-hin	<i>to sell fish (Actor Pivot)</i> <i>to go fishing (Actor Pivot)</i>
baboy	<i>pig</i>	mag-baboy babuy-in	<i>to raise or sell pigs (Actor Pivot)</i> <i>to defile, make dirty (Patient Pivot)</i>
langgam	<i>ant</i>	*mag-langgam langgam-in	<i>infested with ants</i>

b.

anak	<i>offspring</i>	mang-anak mag-anak *?anak-in	<i>(v) to give birth</i> <i>(v) breed, reproduce (esp. animals)</i>
ama	<i>father</i>	*mang-ama mag-ama *?ama-hin	<i>(n) father and child</i>
ina	<i>mother</i>	*mang-ina mag-ina ina-hin	<i>(n) mother and child</i> <i>(n) female bird or animal (cow, hen, etc.)</i>

Interesting examples of this type could be multiplied endlessly, but these will suffice to illustrate the generalizations listed in (34).¹⁹

The need to distinguish between the inflectional and derivational uses of the voice marking affixes is further demonstrated by the fact that some words contain two different voice affixes. This fact is surprising because the Pivot of any clause, i.e. the NP whose semantic role is indicated by the voice marker, must be unique. That means that if a single word contains two different voice affixes, at most one of them can be functioning inflectionally to indicate voice. The other must be purely derivational in function. Some examples are given below:

¹⁹The discussion to this point has implied that voice affixation with verbal roots is always inflectional, while voice affixation with nominal roots is always derivational. This is an over-simplification of a very complex system. As noted in section 1.3, there are numerous instances of a verbal root occurring in two or more different senses, each sense associated with a different voice paradigm and, in many cases, a different stem-forming prefix. So we need to recognize derivational processes which derive verbs from verbs as well.

(38)	baboy	<i>pig</i>	> babuy-an > mag-babuyan	(N) <i>pig farm</i> (V) <i>to operate a pig farm (Actor Pivot)</i>
	ibig	<i>like, want</i>	> ka-ibig-an > kaibigan-in	(N) <i>friend</i> (V) <i>make friends, seek friendship</i>
	bigay	<i>give</i>	> bigáy-an > mag-bigáyan	(N) <i>mutual exchange of gifts</i> (V) <i>to compromise (Actor Pivot)</i>
	bati'	<i>greet</i>	> bati'-an > mag-bati'an	(N) <i>reciprocal greetings</i> (V) <i>greet one another (Actor Pivot)</i>
	tawag	<i>call</i>	> tawag-án > manawagan	(N) <i>act of calling; term of address</i> (V) <i>to issue a call for help</i>
	tanghali	<i>noon</i>	> tanghali-an > mananghalian	(N) <i>lunch</i> (V) <i>to eat lunch (Actor Pivot)</i>
	sagot	<i>reply</i>	> sagút-an > mag-sagútan	(N) <i>quarrel, debate</i> (V) <i>to quarrel (Actor Pivot)</i>

Examples of this kind of “double voice marking” are actually not uncommon. In every case that I have found, one of the voice affixes is used as a nominalizer, and the resulting nominalization serves in turn as the base for a derived verb form. If Foley were correct that voice affixation always functions to derive verbs, and that Pivot selection is an integral part of this process, it is difficult to see how “double voice marking” could arise.

4. Kwakwala as a Philippine-type language?

If it is true that “symmetric voice” systems in Foley’s sense are found only in languages where roots are pre-categorial, this fact would provide strong evidence for a causal relationship between the two patterns of the kind Foley proposes.

The Salish and Wakashan languages of the Pacific Northwest provide some of the best-known examples of apparent pre-categoriality. As Foley points out, there are a number of striking parallels between Tagalog and Kwakwala. However, it is important to note that there are some major differences between them as well.

First, based on the data cited by Foley, there appears to be no structural difference between verbal and non-verbal clauses in Kwakwala. The same appears to be true in Salish (Jelinek & Demers, 1994). All predicates, whether they name entities, states or actions, take the same kind of inflectional marking. Furthermore, there seems to be no evidence for a difference in phrase structure correlating with the semantic class of the predicate.

The situation in Tagalog is quite different. As noted above, verbal clauses in Tagalog are distinguished from non-verbal clauses by (a) obligatorily “flat” phrase structure, and (b) obligatory inflection of the predicate for voice and (except in the case of imperatives) aspect.

Second, there seems to be little evidence of a “symmetric” voice system in either Kwakwala or Salish. In both cases, the active form of the verb is unmarked for voice; passives of various kinds are formed by adding affixes to the active form, and passive agents take OBL case marking.

Foley argues that passive agents in Kwakwala are not really obliques, but remain as direct arguments in spite of their case marking. The only explicit piece of evidence for this is the fact that passive agents can be expressed as clitic pronouns. But it is not true, as Foley claims, that clitic pronouns are always direct (non-oblique) arguments cross-linguistically. For example, passive agents in Malay are clearly obliques, but they can be expressed by pronominal clitics:

- (39) Surat itu telah di-baca=nya
 letter that PERF PASS-read=3.SG.GEN
The letter has been read by him.

Other languages (** Romance?? **) have dative pronominal clitics which can function as oblique arguments.

Foley also argues that the active form in Kwakwala is not unmarked for voice, but is actually marked by a zero morpheme. His reasoning runs like this: the seemingly unmarked active voice form stands in paradigmatic contrast with the passive voice marker *-su?* ~ *-ɿ* and the instrumental voice marker *-ayu*. (Since verbal forms in Kwakwala can be freely used as NPs, in a manner similar to the Tagalog headless relative clauses illustrated above, it makes no difference to this issue whether the forms in question are used in argument positions or as clausal predicates.) What identifies an active verb as being active is its lack of marking. Since this lack of marking is contrastive, it has the same status and is just as “real” as the other voice-marking affixes with which it contrasts. In other words, “ \emptyset is just one option in a paradigmatic cell of options and no more basic than the others” (Foley, p. 43).

Now by this line of reasoning, there would be no “unmarked” member of any inflectional paradigm in any language. The same reasoning could be applied to any language which has a contrast between active and passive voice, including English, to show that there is no unmarked voice category.

There seems to be no general consensus among linguists concerning the use of \emptyset morphemes (or equivalent devices), even though this issue has been debated since the 1940’s at least. When the \emptyset functions as an allomorph of an overt affix, appearing only in certain specific contexts, it seems natural to speak of a zero-marked form. For example, we would certainly want to say that the English past tense forms *cut* and *hit*, or the plural forms *sheep* and *deer*, are inflected for tense and number respectively. (Whether or not one posits an actual \emptyset morph in such forms depends on the model of morphology one chooses.) Similarly, the Tagalog Objective Voice suffix *-in* is systematically realized as *- \emptyset* in realis aspect. Thus verbs like *pinatay* ‘was killed’ or *kinakain* ‘is being eaten’ are inflected for Objective Voice, even though they do not bear any overt voice affix. But this is quite a different matter from positing a \emptyset morpheme to represent a category which is never overtly marked.

Foley has emphasized the fact that all verb forms in Tagalog bear overt voice affixes, taking this lack of an unmarked voice category as a defining characteristic of “symmetric” voice

systems. But his analysis of Kwakwala robs this claim of any empirical content, and implies that the main difference between the English and Tagalog systems is simply the number of voice categories.

5. “Pre-focus” and inherent argument structure

From the claim that Kwakwala has a zero morpheme which marks active voice, Foley infers as a logical consequence the possibility that in some language, a zero morpheme could mark different voice categories for different roots.²⁰ He points to Bilaan (or Blaán) as an example of such a language. But before considering the Blaán data, let us consider a similar but very limited pattern in Tagalog.

Cena (1977), de Guzman (1992) and others have pointed out that a handful of verbal roots exist which are exceptions to the generalization stated in section 3, in that they may in fact occur without voice affixation. In every case, the uninflected forms of these roots always select the Undergoer as Pivot; and in most cases, the bare root form is found in free variation with an equivalent fully inflected form, usually marked for Objective Voice. The following examples are from de Guzman (1992):

(40)	Bare Root	Equivalent full form	Gloss
	akay	akayin	<i>lead (e.g. by hand)</i>
	pasan	pasanin	<i>carry on back</i>
	hawak	hawakan	<i>hold in hand</i>
	dala	dalhin	<i>carry</i>
	taban	tabanan	<i>hold, grasp</i>
	sakop	sakupin	<i>rule over; dominate</i>
	mahal	mahalin	<i>love</i>

- b. Pasan / Pinapasan ng lalaki ang isa=ng sako=ng bigas.
 carry / carry-IMPERF-OV GEN man NOM one=LNK bag=LNK rice
A sack of rice is being carried by the man.

It is important to note that these unmarked verb roots lack not only voice but also aspectual affixes, even though both categories are normally obligatory for the predicate of a verbal sentence. So this pattern does not just involve a lack of voice marking, but a total lack of all affixation, a special use of the bare root form which can be interpreted as carrying any of the possible tense/aspect combinations, depending on context. We might refer to these forms as “finite roots”.

These facts would be difficult to explain if we assume that the finite root forms are created by the addition of a “zero” voice morpheme. If the \emptyset voice marker is “just one option in a paradigmatic cell of options” and has the same status as any other voice-marking affix, why should its presence block all other affixation? It seems much more plausible to assume that

²⁰There seems to be more semantic ambiguity of voice affixes in Tagalog than in most other Philippine languages. This is one of the difficulties in making sense of Tagalog verbal morphology. An obvious example is the prefix *i-*, which selects instruments and displaced themes as Pivot in Kimaragang and many other languages. It has this same function with many roots in Tagalog, but with other roots signals a Benefactive Pivot.

these roots are simply unaffixed, being idiosyncratically licensed to occur in their basic form. And this seems even more clear in Blaan.

In Blaan most verbal roots can occur in this way, being used in their basic unaffixed form as finite verbs. But unlike Tagalog, where all “finite roots” select the Undergoer as Pivot, in Blaan the choice of Pivot varies from one root to another.

There are some interesting aspects of the Blaan voice system. Blaan has only two (overt) voice affixes: *-m-*, marking Actor as Pivot, and *-n-*, marking non-Actor (normally patient, recipient, goal or path) as Pivot. As noted above, most verbal roots can occur in their basic form, i.e. without any overt voice marker, and when this happens the argument selected as Pivot is determined by the inflectional class of the root. The sources from which Foley draws his Blaan data (Abrams, 1961 and Rhea, 1972; see Foley’s examples (55) - (57)) argue that the Pivot selection of this unmarked form of the verb reflects the basic “orientation” (i.e. the default voice category) of the root. They use the term “pre-focus” to suggest that a basic voice category is already selected before any “focus” affix is added to the root.

There is no instrumental voice marker in Blaan. Instruments can only be selected as Pivot with a certain set of lexically specified roots. Apparently all of these roots can be overtly marked for Actor or Undergoer Pivot, using the affixes mentioned above. But when these roots appear without any voice marker, the instrument is the Pivot. With any other root, there is no way to select an instrument as Pivot.

Verbs derived from nominal roots have no “pre-focus” form. In other words, these roots can only be used in their verbal sense when they bear an overt voice-marking affix (e.g. *lifò* ‘fire’ > *mlifò/nlifò* ‘to cook’; *dado* ‘plough’ > *dmado/dnado* ‘to plough’; *bà* ‘mouth’ > *mbà* ‘to bark’ (of a dog); *nbà* ‘to bark at’). Thus it is clear that there is a lexical distinction between nominal and verbal roots.

Most unaccusative verbs are unmarked when used in their basic intransitive sense. This includes verbs meaning *fall, break, rest, stand, trip, sneeze, yawn, hungry, full, itch, tickle, sting, know how, sleep*, etc. However, some of these also have a transitive sense (generally causative, e.g. *to fell (a tree), to break something, to stand something up, to rest something*) which is always overtly marked for either Actor or Undergoer Pivot.

Is it plausible to analyze the unaccusative verbs as bearing a \emptyset voice affix? Note that \emptyset contrasts with both of the overt voice affixes with these roots, and unaccusatives never allow an instrumental Pivot. Therefore, the zero morpheme analysis would require positing a new voice category in Blaan, one which is never overtly marked and which selects as Pivot only the subjects of unaccusative verbs. Since the unmarked forms express the basic lexical meaning of the corresponding root, the analysis of Abrams and Rhea seems far more plausible, namely that the bare forms are truly unmarked and are associated with the basic or default choice of Pivot.

As the preceding paragraphs suggest, there seems to be a fairly close correlation between the semantic category of a verbal root and its inflectional class, i.e. its basic voice orientation or “pre-focus” type. However, it is not possible to predict the orientation of a root on the basis of semantics alone. For example, some experiencer predicates select the experiencer as Pivot in their basic form (e.g. ‘itch’, ‘tickle’, ‘hungry’, ‘full’, ‘know how’). A few select the stimulus as

Pivot (e.g. ‘hear’). Others have instrumental orientation (‘see’, ‘smell’). A fourth set never occur in their unmarked form, but always take the Actor Pivot marker *-m-* (e.g. ‘sad’, ‘furious’, ‘embarrassed’).

Similarly most unergative verbs of motion seem, quite unexpectedly, to be instrument oriented (e.g. ‘fly’, ‘walk’, ‘run away’, ‘climb’); but a few are Actor oriented (‘enter’, ‘go upstream’, ‘go downstream’).

Some roots belonging to the instrument-oriented set are rarely used in their basic, unaffixed form. One such root is *basa* ‘to read’, which normally bears either the Actor Pivot or Undergoer Pivot voice markers. But when the process of reading Braille was described to them, Blaang speakers without hesitation used the unmarked Instrumental Pivot form to say ‘He is reading with his fingers.’ Similarly, in the appropriate contexts bare instrumental forms can be used to say ‘I smell with my nose’, ‘it flies with its wings’, etc. (all examples from Rhea, 1972).

These observations strongly suggest that a root’s orientation is determined by its morpho-syntactic features, and not (directly) by its semantic content. Instrument-oriented roots are not those which refer to actions or situations requiring the use of an instrument, but rather those which allow an instrument to occur as an optional argument in argument structure. There is no way to predict that ‘smell’ should belong to this class while ‘hear’ does not. It is simply a fact which must be stipulated in the lexical entry of each root.

Thus the existence of “pre-focus” in Blaang seems to require the existence of a basic argument structure associated with each verbal root. The orientation of the root is the result of a default association of one particular argument in argument structure with the grammatical relation Pivot (or subject).

6. Conclusion

I have argued that the voice marking patterns of Tagalog do in fact require us to distinguish verb roots from noun roots. The evidence presented above from Kimaragang and Blaang seems to require us to posit an underlying argument structure as part of the lexical entry of verb roots. If these conclusions are valid, pre-categoriality cannot be used to account for the unique features of Philippine voice systems.

How then should these systems be analyzed? The characteristics which distinguish Philippine voice systems from “normal” accusative-type systems include: (a) multiple voice categories (typically 4 or more); (b) non-demotion of the agent in non-active clauses; and (c) “patient preference” -- definite Undergoers are normally chosen as subject in basic transitive clauses.

The difficulty of this problem is attested by the quantity and variety of solutions that have been proposed. Foley is to be commended for providing convincing rebuttals to several of these, and in the process helping to clarify the central issues at stake. Whether the modest proposal sketched very briefly in section 1.1 above can provide a better way of grappling with these issues is a matter for further research.

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