M- and S- Transitivity in Philippine Type Languages

Ricardo Ma. Nolasco, UP Diliman
Maureen Joy Saclot, UP Mindanao

I. Introduction

Past analyses of Philippine morphosyntax have tended to define transitivity in terms of the existence of an "object" or of the number of syntactic arguments in the clause. Constructions which have a semantic agent and a semantic patient were routinely classified as transitive, regardless of whether they were in "actor focus (AF)" or "goal focus (GF)." As a result, many investigators did not find transitivity a useful concept in describing the grammatical patterns in Philippine languages (PLs). This has led to the popular but mistaken view that PLs are neither ergative nor accusative but instead belong to a separate language type.

This paper problematizes the issue on what constitutes a transitive or intransitive construction in Philippine-type languages. Our analysis employs the framework of Role and Reference Grammar (RRG) which distinguishes between two types of transitivity: M- or macrorole transitivity and S- or syntactic transitivity. The specific claims in this paper are: (1) that "GF" constructions are both S- and M-transitive, and therefore must be considered canonically transitive; and (2) that "AF" constructions which contain a semantic patient are analyzed here as S-transitive but M-intransitive. The logical structure (LS) of "AF" and "GF" constructions, the case assignment system of the arguments and voice ("focus") morphology of the verb all point to the centrality of M-transitivity in the organization of Philippine morphosyntax. The evidence leads us to the inescapable conclusion that the grammatical patterns in PLs are ergative-absolutive.

The discussion will be organized as follows. A brief overview of RRG theory, in general, and of semantic macroroles, in particular, will be presented. We then give a substantive account of previous RRG analyses of Philippine morphosyntax. Next, we summarize our findings in Nolasco (2003) and Saclot (2004) on the semantic and pragmatic motivations of Philippine transitivity and ergativity. After which, we explore how these findings may be expressed in RRG terms. The last section will deal with problematic aspects in the RRG analyses and their possible solutions.

II. RRG and Semantic Macroroles

Role and reference grammar (RRG) accounts for clausal structure by appealing to a single level morphosyntactic representation consisting of the following: (a) a semantic representation ; (b) a syntactic representation; and (c) a linking system between the semantic and syntactic representations. The semantic representation of the clause addresses predicate-argument structure, including the logical structures (LS) of verb classes and the argument positions which accompany every verb class. In RRG, verb classes divide into states, activities, achievements, semelfactives, accomplishments,

active accomplishments and causatives. The syntactic representation encompasses the layered structure of the clause (LSC) made up of the core argument/s and the periphery. The linking system or algorithm provides the mapping procedure from semantics to syntax and vice versa. It is in the linking algorithm where we find the set of case marking, voice assignment, adposition and agreement rules in the grammar.

A very important notion in RRG is that of semantic macroroles, which has no analog in other theories. Macroroles are generalizations across argument types found in particular verbs. The more agentive argument is called the Actor (A) which subsumes particular thematic notions, like agent, experiencer, effector, source, recipient and force. The more patientive argument is called the Undergoer (U) which covers patient, theme, beneficiary, goal and location. As mentioned earlier, macroroles figure prominently in distinguishing a grammatically transitive construction from a semantically transitive one. RRG refers to these concepts as M-Transitivity and S-Transitivity respectively. M-Transitivity is characterized by the number of macroroles, while S-transitivity is defined by the number of syntactic arguments of a verb or in short, by its valence. Thus, an M-Transitive construction contains an Actor macrorole and an Undergoer macrorole, while an S-Transitive bears only one macrorole despite having a semantic agent and a semantic agent. Given these definitions, it is possible for an S-transitive construction (i.e. a construction with a semantic agent and a semantic patient) to be M-intransitive.

III. Earlier RRG treatment of "AF" and "GF" Constructions in PLs

The verbal system of PLs has been widely referred to as the Philippine "focus" system. Schachter defines "focus" as "the feature of a verbal predicate that determines the semantic relationship between a predicate verb and its topic." (Schachter, 1972, p. 69). This relationship is signaled by what has been referred to as the 'focus' or voice-affix in the verb. The voice-affix identifies the semantic role of the topic nominal (as actor, goal, instrument, beneficiary, instrument). This function of the verbal affix has been overstated in earlier studies, masking its principal morphosyntactic function, and that is to cross-index the most affected entity in the clause. In RRG terms, the most affected entity status is equivalent to the privileged syntactic argument (PSA).

There is also another idea which Schachter helped popularized. This concerns the nature of Philippine "topics" (i.e. the nominal co-indexed by the verb). The received view is that Philippine "topics" share with similarly labeled constituents in other languages one prominent characteristic; that of presupposed referentiality (Schachter, 1978, p. 282.)

Consider the following Tagalog sentences:

(1) ***Kumain*** *si* *Maria* *ng* *mangga.* (AF)
INT(-um-).eat.PAST Case1.PER Maria Case4.NPER.INDEF mango
`Maria ate mangoes/a mango.'

(2) ***Kinain*** *ni* *Maria* *ang* *mangga*. (GF)
GF<PAST>.eat.PAST Case 2.PER Maria Case1.NPER.DEF mango
`Maria ate the mango.'

Previous studies have posited both these sentences as "transitive" since both have an agent and a patient. Semantically, in (1), *si Maria* is said to be the agent and *ng mangga*, the patient. Syntactically, the agent is said to be the logical and grammatical "subject" and the patient is the logical and grammatical "object." Hence, the verb *kumain* is considered to have two arguments. The same interpretation has also been posited for (2); except for the claim that these two sentences differ in "focus". The "AF" sentence is said to focus on the actor = Maria as doubly indicated by the case-1 determiner *si* for personal names and by the use of the *–um-* affix attached to the main verb. On the other hand, "GF" is said to focus on the object=*mangga* which is also marked by the case-1 determiner *ang* for common nouns and co-indexed by the verbal affix *–in* . Tagalog informants when pressed to explain the difference between the sentences above would invariably say that the "mango" in (1) is indefinite or nonspecific unlike in (2) where it is definite or specific. Doubtless, judgments of this type have led investigators into concluding that referentiality or definiteness (of a patient) is what motivates a speaker to choose between an "AF" construction and a "GF" construction.

RRG theory in the 1980's already made reference to two kinds of semantic relations/roles: thematic relations (which was analogous to Fillmorean case relations of actor, patient and instrument) and semantic macroroles of Actor and Undergoer (which were generalized semantic roles). At that time, however, RRG did not distinguish between S(yntactic) transitivity and M(acrorole) transitivity, although it did identify the Actor and the Undergoer as sufficient and necessary arguments of a transitive predication.

The first PLs analyzed under an RRG framework were Tagalog and Sama in the 1980's. Early treatment of Tagalog by Foley and Van Valin (1984) overstated the "focusing" function of the verbal affix and subscribed to Schachter's "definiteness hypothesis". This had important consequences in the resulting analyses. One, that work was not able to tell apart syntactically transitive constructions (S-Transitive) from grammatically transitive ones (M-Transitive). Two, there was an ambivalence in characterizing the language type of Tagalog, and by extension, that of other PLs.

Foley and Van Valin believed that there were pieces of evidence in Tagalog for an ergative characterization, just as there were also pieces of evidence arguing for an accusative interpretation. They compared the morphology of Tagalog with Sama and cite the following examples which purportedly show prima facie evidence of ergativity.

Tagalog
(3) a. ***P-um-ula*** *ang dahon.*
-um-red PrP leaf
`The leaf turned red.'

b. ***B-in-asag-0*** *ng lalake ang baso.*
PERF-break-PF A man PrP glass
`The man broke the glass.'

c. ***Nagbasag*** *ang lalake ng baso.*
PERF/AF-break PrP man P glass
`The man broke a glass.'

Sama
(4) a. ***Tuwi*** *aku.*
Sleep 1sg.PrP

b. ***0-bis*** *ku tukul*
UF-borrow 1sg.A hammer (PrP)
`I borrowed the hammer.'

c. ***N-bis*** *aku tukul.*
AF-borrow 1sgPrP hammer
`I borrowed a hammer.'

Foley and Van Valin's argument runs as follows. (3a) and (4a) are both intransitive constructions, which could be morphologically unmarked as in (4a) or marked with a derivational affix *(-um-)* as in (3a). (3b) and (3c) were considered "transitive" constructions in Tagalog, similar to (4b) and (4c) in Sama. Since the examples in (3c) and (4c) appear to contain derivational affixes (i.e *nag-* for Tagalog and *N-* for Sama), the data above purportedly suggest that the so-called "object focus" verbs are the morphologically unmarked focus choice with transitive verbs (Foley and Van Valin, p. 136-137). Since the only argument of the intransitive constructions in Sama and Tagalog are both relatively unmarked similar to the unmarked focus transitive construction, then these examples may be said to illustrate a basic ergative case marking pattern (Foley and Van Valin, p. 137).

But as Foley and Van Valin put it, a different picture emerges, once the various "oblique focus types" (i.e. "instrumental", "beneficiary" focus) are considered. They reason out that if "GF" were the unmarked focus type and the "AF" the derived type, the expectation is for the "oblique focus types" to pattern with the "AF" type. But this is not the case, as shown by the presence of the *–in-* perfective affix in the "GF" constructions and the "oblique focus" types and its absence in the "AF" construction. This suggests that "AF" should be considered the unmarked type. This would now support an accusative analysis (p. 138).

They present the following examples:

Tagalog
(5) a. ***D-um-ating*** *ang lalake.*
-um- arrive PrP man
`The man arrived.'

b. ***P-um-unta*** *ang lalake (sa tindahan).*
-um- go PrP man L store
`The man went (to the store).'

c. ***P-in-unta-han*** *ng lalake ang tindahan.*
PERF-go-LF A man PrP store
`The man went to the store.'

(6) a. ***B-um-ili*** *ang lalake ng isda xxx sa tindahan.*
AF-buy PrP man TH fish L store
`The man bought fish in the store xxx.'

b. ***B-in-ili-0*** *ng lalake ang isda xxx sa tindahan.*
PERF-buy-THF A man PrP fish L store
The man bought the fish in the store xxx.'

c. ***Ip-in-am-bili*** *ng lalake ng isda ang pera sa tindahan.*
INF-PERF-buy-LF A man TH fish PrP money L store
`The man bought fish in the store with the money.'

d. ***B-in-ilh-an*** *ng lalake ng isda xxx ang tindahan.*
PERF-buy-LF A man TH fish xxx PrP tindahan
`The man bought fish in the store.'

Foley and Van Valin took note of the same morphological marking *(-um-*) for the patently intransitive constructions in (5a) and (5b) and for what they consider a "transitive" construction in (6a). Since that affix does not appear in any of the non-"AF" constructions, they thought this to be indicative of an accusative pattern. The seemingly conflicting evidence led them to state that "there is a definite clash between markedness and morphological marking in Tagalog" and that "Tagalog defies simple classification as either accusative or ergative" (p. 138).

Moreover, the various "focuses" marked by the verbal morphology gave them the impression that: "there appears to be no real evidence in Tagalog for the existence of undergoer as a macrorole distinct from the individual roles of patient, theme and locative. (p. 174).

In contrast, Walton (1986) analyzes Sama to be an ergative language, morphologically and syntactically. He presents the following examples:

(7) a. ***l'mmok*** *sapi' kami*. (Walton, p. 69)
fat cow 1pl.exI
`Our cow is fat.'

b. ***N-l'mmõk*** *sapi kami*. (Walton, p. 69)
AFF-fat cow 1pl.exI

`Our cow became fat.'

(8) a. ***0-bono'*** *Sultan banta' na.* (Walton, p. 120)
UF-kill king (A) enemy (U) 3sgI
`The king killed his enemy.'

b. ***N-bono'*** *Sultan banta' na*
AFF-kill king (A) enemy (U) 3sgI
`The king kills/fights some of his enemies.'

c. ***mag-bono'*** *Sultan ka banda' na.*
AF-kill king (A) OBL enemy na
`The King is fighting with his enemies.'

d. ***N-bono'*** *Sultan*
AF-kill king (A)
`The King kills/fights.'

e. ***mag-bono'*** *Sultan*
AF-kill king (A)
`The king is killing/fighting.'

Walton considers (7a) and (7b) as intransitive constructions not only because they are one- argument clauses. They also do not show any case marking, and they can be substituted only by a specific set (set 2) of pronouns. The examples in (8) show three (3) two-argument constructions, namely (8a-c) and two (2) one-argument construction (8d-e). Walton identifies (8a) as the active transitive construction and (8b) and (8c) as "anti-passive" or derived intransitive constructions. The undergoer verb in (8a) does not also have any affix and the undergoer *banta na* `his enemy' can only be substituted by the same set of pronouns as the single argument of the intransitive in (7a) and (7b). Since the only argument of an intransitive construction is coded in the same way as the more patientive argument of the active transitive, Sama therefore exhibits an ergative-absolutive system.

The differences in analyses of Tagalog and Sama notwithstanding, Foley and Van Valin's (1984) and Walton's (1986) pioneering studies succeeded in highlighting the relationships among the various discourse, pragmatic and morphosyntactic phenomena in PLs. They were the first to establish the correlations between many `transitive" (i.e. two-argument) verbs with the LSs of accomplishment verbs in "undergoer focus" and with those of activity verbs in "AF". They pointed out that the referentiality and definiteness of the 'objects' in "undergoer focus" were crucial to the accomplishment semantics of the verb and that it was only through verbal cross-coreferencing that that status in PLs can be signaled. They also asserted that most of the high and low transitivity features in Hopper and Thompson (1980) underlie the Dowty classification of verb classes adopted by RRG. For instance, telicity, volitionality and potency of the agent are features of the verb and the actor which are more associated with achievement and accomplishment verbs, rather than state and activity verbs. Moreover, the degree of affectedness and individuation of the 'objects' appear to coincide too with

accomplishment rather than with activity and state verbs. The implication therefore was that the "transitivity" notion has alredy been incorporated in the lexical decomposition model in RRG.

On the other hand, Foley and Van Valin never got to elucidate on the precise nature of the linkages between "GF" constructions and accomplishment-verb semantics and between "AF" constructions and activity verb semantics at least for Tagalog. Here lies the significance of Walton's work as it was able to correctly identify, we believe, the so-called un-affixed form in Sama as an ergative (transitive) construction and the *N-* and *mag-* constructions as intransitive (`antipassive') constructions. To us, an ergative interpretation is crucial because of the different case assignment rules applicable to that language type. The interesting question is whether the ergative analysis for Sama also holds true for Tagalog and the other PLs.

IV. A Characterization of Philippine Transitivity: Nolasco (2003) and Saclot (2004)

Nolasco (2003) and Saclot (2004) investigated Philippine transitivity and ergativity and demonstrated how these relate to case and voice selection in PLs. Nolasco made two important claims. First, that Hopper and Thompson (1980)'s transitivity parameters (as revised to suit the Philippine condition) provided the necessary semantic and pragmatic criteria for identifying high and low transitivity in PLs. Nolasco's revised list include: distinctness of the A and P vs. S; action vs. state; telic vs. atelic; punctual vs. non-punctual; deliberate vs. volitional; particular vs. general; external vs. internal; effortful vs. effortless; total affectedness of the P vs. partial affectedness of the P; and high individuation of the P vs. non-individuation of the P. The first member of the pair correlates with high transitivity and the second with low transitivity or in other words, intransitivity.

Second, that high and low transitivity are grammatically expressed in the voice and case system of PLs. Using Tagalog, Sebwano and Ilokano data, Nolasco made the following characterization of Philippine transitive and intransitive constructions: (a) In an intransitive construction, the verb is marked by the intransitive voice affix *-um-* or its allomorph *m-*. The only grammatical argument is assigned the absolutive case (case 1 or the *ang* case). It is possible for an intransitive construction to have a semantic agent and a semantic patient. Here, the semantic agent is assigned the absolutive case (case 1) while the patient takes the oblique case (case 3 or 4). This construction is semantically transitive but grammatically intransitive; (b) In a transitive construction, the verb is marked by any of the transitive affixes, *-in*, *-an* and *i-*. These affixes coindex the most affected entity (P) in the clause, on top of identifying the particular semantic role or thematic relation of that entity. The P bears the absolutive case (case 1), while the source of the action (A) assumes the ergative case (case 2). In sum, Nolasco's analysis supported the view that there were three (3) kinds of transitive constructions in PLs and only one kind of intransitive construction.

Saclot (2004) found the conclusions in Nolasco (2003) relevant to her own study of what motivates speaker's choice of "AF" and "GF" constructions in Tagalog. She

singles out individuation of the O as the most critical factor in the choice between a "GF" construction and an "AF" construction with a semantic patient. Saclot noted that verbs taking the transitive affixes *–in*, *-an* and *i-* render the most agent-like participant as a distinct and independent entity totally affecting and changing the state of an independent, particularized and distinct patient-like participant. In her study, Saclot found out that is the individuation of the O is usually associated with: (a) one actor affecting only one patient; (b) familiarity and identifiability of the arguments; (c) the spatial-temporal context which triggers identifiability and consequently the perception of the O being definite or not; and (d) the *ng* oblique as the partitive and non-individuated marker of the O, and the *ang* as marker par excellence for an individuated O.

We believe that RRG's conceptual distinction between M- and S- transitivity is compatible and consistent with our findings and we will demonstrate how our ideas can be expounded in an RRG framework. We also believe that many of the semantic and pragmatic parameters postulated by Hopper and Thompson (1980) and revised in Nolasco (2003) can be grounded under RRG's verbal classification and their LSs (see below).

.

V. M–intransitivity in PLs

In the most recent version of RRG, the possible constructions in terms of the number of macroroles are of three kinds: 0. 1 and 2. A construction with 0 macrorole is called M-atransitive; one with 1 macrorole is labelled M-intransitive, and one with two, M-transitive.

Examples in PLs which may qualify as M-atransitive constructions are "subjectless" constructions in Tagalog with meteorological predicates like:

(9) a. ***Umuulan***.
PRES.INT(-um-).rain
`It is raining.'

b. ***Kumikidlat***.
PRES.INT(-um-).lightning
`Lightning strikes.'

c ***Lumilindol.***
PRES.INT(-um-).earthquake
`An earthquake is occurring'

One-argument M-intransitive constructions in PLs are not hard to find, and may be thought of as the prototypical intransitive clause.

(10) ***Tumaba*** *ang* *bata*. (ang bata =undergoer)
PAST.INT(-um-).fat ABS.NPER child
`The child got fat.'

(11) ***Tumakbo*** *ang* *bata*. (ang bata = actor)
` PAST.INT(-um-).run ABS.NPER child
The child ran.

In RRG. the single argument of an intransitive construction may either be an Undergoer (10) or an Actor (11), depending on the capacity of a referent to will or instigate the action. Notice how the verbs of these constructions and the verbs in the atransitive examples, are similarly marked by the affix *–um-*. It is on this basis that we say that *–um-* marks intransitivity and that the single argument of these constructions may be referred to as the S, following Dixon (1979) and Comrie (1989).

M-atransitive and single argument M-intransitive constructions appear to us as straightforward and uncontroversial. But what about "AF" syntactically transitive *–um-* constructions which take a semantic agent and a semantic patient? These constructions often alternate with "GF" constructions, which take either an *–in*, an *-an* or an *i-* affix. As earlier mentioned, the received interpretation seem to be that both "AF" and "GF" constructions are amenable to a transitive reading. As claimed by Shibatani, "AF" and "GF" constructions equally bear the functional load of transmitting semantically transitive events (Shibatani, 1988, p. 113).

VI. M-Transitivity and S-Transitivity in PLs

Our analysis diverges from earlier ones in our identification of verbs bearing the voice ("focus') affixes *–in*, *-an* and *i-* as M-transitive, and of verbs bearing the voice affix *–um-* (or its replacive allomorph *m-*) as M-intransitive. The prototypical M-transitive verb distinguishes itself from an M-intransitive by having an Actor macrorole argument and an Undergoer macrorole argument. M-intransitive verbs can only have one macrorole, which performs as an Actor or an Undergoer. Constructions which have an *-um-* affix and take a semantic agent and a patient argument are S-transitive but M-intransitive. This semantically transitive construction type has only one macrorole, an Actor, but it cannot take another Undergoer macrorole, even if it has a semantic patient in its core. That core semantic patient which does not serve as Undergoer is considered an oblique despite its core status.

Let us consider the first two examples in (1) and (2), and how RRG might account for their semantic and syntactic differences. The first step in the linking algorithm from the semantics to syntax requires us to construct the semantic representation of the sentence, based on the LS of the predicator. We propose the following logical structures (LS) for the verbs in (1) and (2), renumbered here as (12') and (13').

(12') a. . *kumain*: (-static) (-punctual) (-telic) (+dynamic)
b. (-static) (-punctual) (-telic) (+dynamic) = activity verb
c. LS: **do'**(Maria, [**eat'** (Maria, mangga)]

(13') a. *kinain*: (-static) (-punctual) (+telic) (+dynamic)

b. (-static) (-punctual) (+telic) (+dynamic)= active accomplishment
c. LS: **do'**(Maria , [**eat′** (Maria, mangga)] & INGR **consumed**' (mangga).

Because of the importance of the NP or argument operators, we also give out the LSC of these two constructions:

Figure 1: Linking diagram for (12'c)

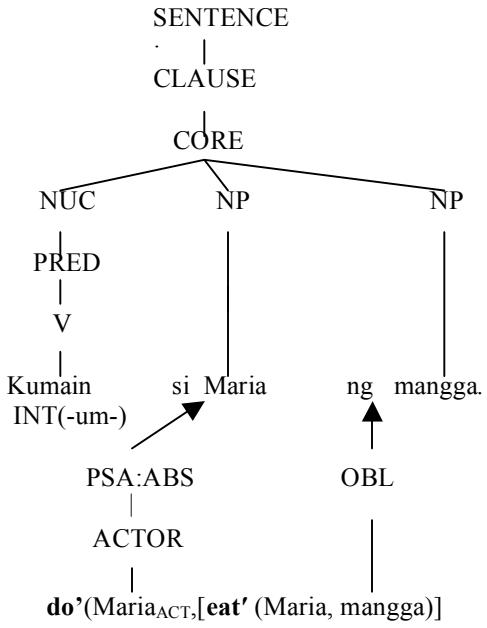
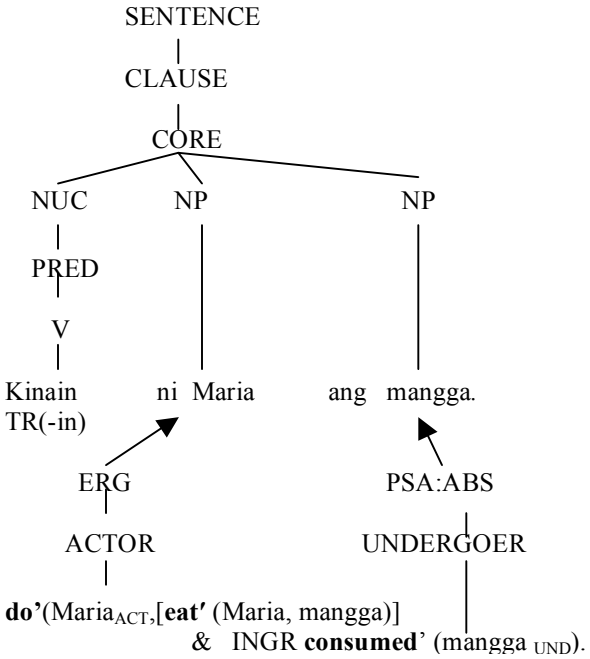


Fig. 2: Linking diagram for (13'c)



If we take a look at the layered structure of the clause (LSC) of the "AF" and "GF" constructions, it seems that there isn't any difference at all. Both the two NPs are part of the core. However taking a look at the operators of these NPs, *ng mangga* is indefinite in an "AF" construction while *ang mangga* is definite in a "GF" construction. The LSCs of both constructions can't straightforwardly indicate the difference between the two, except for the opposition of definiteness and indefiniteness. Given that we are proposing that the "AF" construction with *–um/m-* affix is an intransitive construction, how can we reconcile this with the existence of a direct core argument *ng mangga*? Furthermore, how can it be shown that the indefinite NP in an "AF" construction is an oblique core argument, which is an 'inherent argument' of the verb? For this reason, we examine the lexical representation of these two constructions.

In each of these examples, we have two arguments involved in the eating activity: *Maria* (eater) and *mangga* (eaten). The traditional reading of (12) is that it is a `transitive' verb with *Maria* as the subject and '*mangga*' as the indefinite "object." In the RRG perspective, `*mangga*' represents 'the non-instigating affected participant in a state of affairs' (Van Valin 2004:53). However, the semantics of this verb is unclear as to whether that 'mangga' has undergone a radical change of state or if it even refers to a

definite mango. The default interpretation would be that it has undergone a minimal change of state, like it has been given a small bite. The LS shows that (12) is a –telic verb, and therefore an activity verb.

Crosslinguistically, activity verbs with generic or indefinite patients are often encoded as intransitive verbs. To Van Valin and La Polla (1997), an activity verb "does not refer specifically to any participant in an event denoted by the verb" and "serves to characterize the nature of the action" (Van Van and La Polla, p. 123). They call this second argument of an activity verb an `inherent argument' and therefore unfit to assume Undergoer macrorole status.

Thus, when we determine the Actor and Undergoer assignments, (12) would show up with only one macrorole and that is the Actor, which can be represented in this way:

do'(Maria, [**eat′** (Maria$_{ACT}$, mangga)]

The presence of one macrorole, an Actor, and the non-assumption of the semantic patient to Undergoer status in the LS identifies the construction as an intransitive activity construction. The default case assignment of a semantic patient in an intransitive construction is oblique, which is *ng* in this particular example although it can also be *sa* for other verbs. *Ng* not only functions as a case determiner for the oblique patient but also indicates its non-referential and non-individuated status. (12) is what can be referred to as S-transitive but M-intransitive. It, therefore, has only one macrorole, and that is the Actor macrorole.

Now look at (13). The LS of (13) is similar to (12) in having the activity component of the representation, but contrasts in carrying an accomplishment component. The difference in semantic interpretation is that the *mangga* in (13) is a definite referent which is completely changed in state by the eating activity of *Maria*. This is what is meant by the eating activity ending in an accomplishment of some kind. (13) is what is referred to as M-transitive, having two macroroles: an Actor and an Undergoer. Take a look at its representation below:

do'(Maria, [**eat′** (Maria$_{ACT}$, mangga)] & INGR **consumed**' (mangga $_{UND}$).

How is the semantics of the two related verbs realized in the morphosyntax? If we are correct in assuming that PLs are ergative languages, then we would expect that the case assignment rules in RRG for ergative constructions and non-macrorole arguments would operate:

8. Case assignment rules for ergative constructions:
   a. Assign absolutive case to the lowest ranking macrorole argument
   b. Assign ergative case to the other macrorole argument.

Our proposal is borne out by the facts. In (12) the argument *Maria* representing the only macrorole of Actor is assigned the absolutive case (*si*) for personal names, in

accordance with 8a. The *mangga* is assigned the oblique `instrumental case' by not having been selected as Undergoer by virtue of the activity semantics of the verb. The assignment of the oblique case to the semantic patient seems to indicate that the effects of the action do not fully accrue to it. The verb in (12) takes the *–um-* affix. Verbs with *–um/m-* evokes movement towards the agent. It is for this reason that the oblique core argument taking the case determiner AND indefinite marker *ng* in an "AF" clause seems to be bonded to the verb. Therefore, this participant would not have a distinct and independent existence apart from the predicate, as alleged by Keenan (1976:313).

In (13), the most affected entity or macrorole Undergoer (*mangga*) is assigned the absolutive case, in accordance with 8a, because it is the lowest ranking macrorole argument. In turn, the macrorole Actor *Maria* receives the ergative or genitive case because it is the "other" macrorole argument pursuant to 8b. The verb in (13) takes the *–in* affix. The affix *–in* interprets the action to be moving outside of the actor: from the performer/instigator to the recipient of the act. Nolasco (2003) has termed this action as *'paiba'*, while Ramos (1974) uses the term *centrifugal*. Moreover, the most agent-like participant is depicted as acting intentionally, volitionally and purposely to affect the most patient-like participant, although the LS of this verb does not show these adverbial properties.

It must be stressed that the assignment of the Actor and Undergoer macroroles in RRG is not an ad hoc affair and such assignment must be firmly motivated by the logical structures of particular verbs. Thus it is not surprising for two related verbs bearing different "focus" affixes and belonging to the same verb class of activity or active accomplishment verbs to display different macrorole numbers. The motion verbs *ulien* `to scale something' and *immuli* `to go up someplace'. in Ilokano is illustrative . Look at these examples:

(14) "*No ania ti makuna=m, Marian,* ***ulien=ta=nto*** *a dua.*
If what ABS say=2ERG, Marian, climb.TR(-in)=we=FUT LKR two
`What are you implying, Marian, that we two scale it. (the mountain)' (TD, p. 16)

(15) ***Imm=uli*** *kami ti agdan xxx*
PAST.INT (-um-)=climb 1ABS.PL OBL.DEF stairway
`We went up the stairway…' (KA, p. 16)

In (14) and (15), the two verbal forms of the stem *uli* `to go up or climb' predicate on two arguments: a climber and a place to climb. The agent in (14) refers to the pronoun *ta* `we (inclusive)' and the patient to an identifiable mountain expressed here as a zero. The agent in (14) is the pronoun *kami* `we (exclusive)', the referent going up an identifiable stairway.

These two constructions differ in their LSs as follows:

(14') a. *ulien*: (-static) (+dynamic)(-punctual) (+telic)
b. (-static) (+dynamic) (-punctual) (+telic) = active accomplishment
c. LS: **do'** (we inclusive$_{ACT}$, [**go up'** (we inclusive, mountain)] &

INGR **scaled'** (mountain $_{UND}$)]

(15') a. *umuli*: (-static) (+dynamic) (-punctual) (+telic)
b. (-static) (+dynamic) (-punctual) (+telic) = active accomplishment
c. LS: **do'** (we exclusive$_{ACT}$, [**go up′** (we exclusive)]
& BECOME **be on**' (stairway).

As its gloss and LS clearly indicate, *ulien* presupposes a more causative and more purposeful activity which results in the mountain being scaled and conquered. *Umuli* is a more internally directed activity which merely moves or transfers the agentive theme into a different place or location. In terms of macroroles, *ulien* takes two macroroles, an Actor and an Undergoer, while *umuli* takes only one, an Actor. Since *ulien* is an ergative construction, the Undergoer is again assigned the absolutive case and the Actor is assigned the ergative case. The only grammatical argument of *immuli* assumes the Actor macrorole, while the place or location to where the agent moves itself is assigned the oblique case.

Telicity and punctuality are prominent notions and semantic primitives in RRG. They play a decisive role at times not only in distinguishing the macrorole number of related verbs in PLs but also in choosing a particular voice form of the verbs and case form of the arguments. The next set of Ilokano examples involves the root *takder* which has been described by some linguists as semantically intransitive. Our examples show that this particular root when attached to a particular affix may read intransitively or transitively, as can be seen from the verbs *tumakder* `to stand up', *agtakder* `to adopt a standing position' and *takderan* `to stand on guard over s.t',

Ilokano

(16) *B<imm>angon* *ni Ponso* *sana* *matmat=an*
PAST. INT (-um-)=sit upright ABS.PER after.this gaze=TR(-an)

ti *bola.* *xxx* ***T<imm>akder.*** (UKPDA, p. 17)
ABS ball. xxx PAST.INT (-um-)=stand up

`Ponso sat upright and gazed at the ball. xxx He stood up.'

(17) *Nabayag a* ***n=agtakder*** *iti* *asideg*
long LKR PAST.INT (m-)=(ag=stand) OBL near

ti *tawa* *ti* *kuarto=da*
ERG window ERG room=ERG.PL (TA, p. 31)
`She was standing by the window for a long time.'

(18) *Bil=bilangen* *ni* *Sencio* *dagiti* *i<di>diskargada*
PRES=[count=TR(-en)] ERG.PER Sencio ABS. PL TR(i-)<PRES>unload

a *materiales.* ***Ta=takderan*** *met* ni Mr. Domag,

LKR materials. FUT=[stand=TR(-an)] then ERG.PER Mr. Domag,

ti Teacher ti pagadalan, no adda *sub-standard a mailaok*
ABS teacher ERG school, if exist substandard LKR mix

`Sencio will count the materials as they are unloaded. Standing guard would be Mr. Domag, the school teacher, to make sure that no substandard materials get mixed with it.' (KRT, p. 23)

The LSs of these three verbs are given hereunder.

(16') a. . *tumakder*: (-static) (+dynamic) (+punctual) (+telic)
b. (-static) (+dynamic) (+punctual) (+telic) = achievement verb
c. LS: **ING** stand.up (he/she$_{ACT}$)

(17') a. *agtakder*: (-static) (+dynamic) (-punctual) (-telic)
b. (-static) (+dynamic) (-punctual) (-telic) = activity
c. LS: **do**'(he/she$_{ACT}$, [**stand.up'** (he/she)]

(18') a. *takderan* (-static) (+dynamic) (-punctual) (+telic)
b. (-static) (+dynamic) (-punctual) (+telic) = active accomplishment
c. LS: **do'**(he/she$_{ACT,}$ [**stand.up** (he/she]
& [ING **guarded**, (construction materials$_{UND}$)]

As seen above, the difference between *tumakder* and *agtakder* is one of telicity and punctuality. The action of *tumakder* requires that the agent starts from a sitting or non-standing position at which point the agent stands up. *Agtakder* does not presuppose a non-standing position as starting point of the action. In fact, it is unclear when the standing stance begins or ends, a truly non-telic and non-punctual affair. (16) and (17) both have one macrorole, an Actor, and displays intransitive variants (*–um-* and *–ag*) in their verbs. *Takderan* is definitely transitive and bears two macroroles, with the Actor again receiving the ergative case and the Undergoer absolutive case. What is significant in these examples is the correlation between the verb classes (more specifically the telic and punctual component) and the voice affixes.

This correlation also turns up in our Sebwano data. The four examples hereunder illustrate the telic vs. atelic and punctual vs non-punctual distinctions of perception/cognition verbs and how they correspond with particular voice constructions.

Sebwano

(19) ***N=akaila*** *ka ba sa biktima?*
PAST. INT (m-)= [paka=know] 2ABS.SG QPRT OBL victim
`Were you acquainted with the victim?' (UDKM, p. 23)

(20) ***N=ailhan*** *ba nimo ang biktima*
PAST.INT (m-)={[ka=ila]=TR(-an)} QPRT 2ERG.SG ABS victim
`Did you recognize the victim?'

(21) ***N=akahibalo*** *si Juan sa tinaguan.*
PAST.INT (m-)=[paka=know] ABS.PER OBL secret
`Juan knows the secret.' (Shibatani, 1988, p. 104)

(22) ***N=ahibaloan*** *ni Juan ang tinaguan.*
PAST.INT (m-)={[ka= know]=TR(-an)} ERG.PER Juan ABS secret
`Juan discovered the secret.'

We have dispensed with the LSs of these examples because the glosses are pretty straightforward. They show that the durative and non-punctual sentences, namely (19) and (21) carry "AF" or intransitive affixation, with the experiencer encoded in the absolutive and the more patientive human stimulus in the oblique. The examples in (20) and (22) are M-transitive constructions, which are [+telic] and [+punctual], and whose Actor macroroles are in the ergative and Undergoer macroroles are in the absolutive.

Our last two examples in this section demonstrate the opposition between states and non-states (activities, achievements and accomplishments). States are equated with intransitive events because by its very nature, it cannot transfer the effects of an action from a responsible agent to a non-responsible undergoer.

Sebwano

(23) ***Gi=kaguol*** *kini pag-ayo sa amahan ug anak.*
PAST. TR (i-)=[ka=sad] ABS.this very ERG father and child
`The father and daughter took it (the mother's death) very hard.' (KG, p. 3)
or The father and daughter mourned (the mother's death)'

(24) ***N=aguol*** *pag-ayo ang amahan ug anak*
past. INT (m-)=[ka-=sad] very ABS father and daughter

tungod ni=ini.
because OBL=this
`The father and daughter were deeply saddened by it (the mother's death).

(23') a. *naguol*: (+static) (-dynamic) (-punctual) (?telic)
b. (+static) (-dynamic) (-punctual) (?telic) = state
c. LS: after [mother's death, [**feel sad'** (amahan ug anak$_{ACT}$)]

(24') a. *gikaguol*: (-static) (-dynamic) (-punctual) (+telic)
b. (-static) (+dynamic) (-punctual) (+telic) = active accomplishment
c. LS: **do'** (amahan ug anak $_{ACT}$, [**mourn',** (amahan ug anak)])
& [INGR **mourned'** (mother's death $_{UND}$)]

Gi-kaguol and *naguol* both have the same stem (*kaguol*) which more or less means `sad' or `sadness.' *Gikaguol* is the past form of *ikaguol,* where *i-* is the voice affix. *Naguol* is the past form of *maguol*, where the verbal affix *m-* replaces the first sound in the stem *kaguol*. *Naguol* refers to the natural emotional state a person finds oneself in when a

loved one or someone close to him/her passes away. *Gikaguol* packs a lot more action and presupposes a greater amount of suffering and of will on the part of the experiencers. In the immediately following section of the story from where (19) was taken, the daughter was described as always in tears, and the father as frequently having bouts of high blood pressure and chest pains.

VII. Problems and Solutions

These are more or less clear-cut examples that we have presented. While it may be said that RRG can indeed explicate the Philippine voice ("focus") system, some crucial features in the semantics and pragmatics of intransitive and transitive constructions in PLs are conspicuously missing in the LSs of these constructions.

Recall that in section four of this paper, we said that individuation of the O (=Undergoer) and not mere referentiality or definiteness is the more crucial determinant in choosing between intransitive (actor voice) and transitive (undergoer voice). To us, the individuation of the O is not the same as referentiality although they are obviously related. What we mean by individuation of the O is spelled out in the following Sebwano example:

Sebwano

(25) ***N=amukaw*** *pa gani kami*
PAST. INT(m-)=(pang= wake up) even had-to 1ABS.PL

kang *Manang Tacia*. (DAH, p. 3)
OBL.DEF Manang Tacia

`We even woke Manang Tacia up.'

(26) ***Gipukaw*** *pa gani namo si Manang Tacia..*
gi-PAST.TR(-un).wake up even had.to 1ERG.PL ABS.DET Manang Tacia.

`We even had to wake Manang Tacia up.'

The clause in (25) was taken from a love story in <u>*Bisaya*</u> magazine. Cita, while on vacation from school, meets Dading in a city in southern Philippines. He courts her, but just as they were getting to really know each other, vacation is over. She has to board a ship back home to Oroquieta City to resume her studies. Cita promises to give her answer to Dading's proposal when he sees her off at the pier. Dading fails to make it to the send-off. Cita leaves a note for Dading with two of his friends, Trining and Charing. Trining and Charing then takes the note to his boarding place late at night. But Manang Tacia, the caretaker, is already fast asleep and they had to rouse her from sleep. The clause in (25) is a direct quote of what Trining and Charing tells Dading when they meet.

Now, what are the differing semantics of *gipukaw* and *namukaw*. *Gipukaw* evokes a scene where someone went to Manang Tacia's bedside and woke her up. *Namukaw* strongly suggests a more indirect modality of the waking up event, like someone came to Manang Tacia's house, knocked on her door, disturbed her sleep and in the process, woke her up and **also possibly others**.

The LSs of *gipukaw* and *namukaw* may be provisionally formulated as follows:

(25') *namukaw*: [**do'**(kami $_{ACT}$, 0)] CAUSE
[INGR **awake'** (Manang Tacia and possibly others)]

(26') *gipukaw*: [**do'** (kami $_{ACT}$, 0) CAUSE [INGR **awake'** (Manang Tacia $_{UND}$)

Unsurprisingly, *gipukaw* is assigned two semantic macroroles where the Actor takes the ergative case and the Undergoer the absolutive case. The only macrorole argument of *namukaw* is given the absolutive case. To us, what is remarkable is that a semantic patient encoded by a personal name (Manang Tacia) but marked by the oblique—even by a definite oblique-- is not an individuated entity. In fact, our studies point to a more encompassing generalization: that only a macrorole Undergoer marked by the absolutive and co-indexed by transitive affixation in an M-transitive construction has guaranteed individuation.

Aside from the individuation (of the Undergoer) , other semantic features of transitive and intransitive constructions in PLs which need to be formalized in the RRG metalanguage are: effortful vs. effortless, intentional vs. unintentional and complete vs. partial affectedness of the undergoer. We will first offer examples in PLs where these features prove to be decisive in the coding of voice, before we put forward our own proposals of how to formalize them in RRG.

Effortful vs. Effortless

Tagalog

(25) a. ***T-um-ulong*** *ako sa matanda.*
PAST. INT.(-um-).help 1ABS OBL.DEF old person
`I helped the old person.'

b. ***T-in-ulung=an*** *ko ang matanda.*
.<PAST>.help=GF(-an) 1ERG ABS.NPER old person
`I helped the old person.'

(25b) implies that I exerted more effort in providing assistance to the old person. Even I didn't have the means, I went out of my way to help that person. In (25a) no special effort was expended by me to help that old person. I chipped in what I could afford. It is also implied that there were others who may have given help to that old person. Or, that old person may not have been the only one I gave help to.

With Intent and Without Intent

Bikol

(26) a. ***N-agpaluwas*** *ako* *kan* *ayam*
PAST. INT(m-).let out 1ABS OBL.DEF dog
`I let the dog out.'

b. ***Nagpaluwas*** *ako* *nin* *ayam.*
PAST.INT(m-).let out 1ABS OBL.INDEF dog
`I let a dog out.'

c. ***P-in-aluwas=0*** *ko* *an* *ayam.*
<PAST>.let out. GF(-un) 1ERG ABS dog
`I let the dog out.'

In (26a) and (26b), it may have been part of my house chore to let the/a dog out. In (26c), I let the dog out because it was wreaking havoc inside my house.

Complete vs. Partial affectedness of the undergoer

Ilokano

(27) a. ***N-agbayad=ak*** *ti* *utang=ko.*
PAST.INT (m-).pay=1ABS.SG OBL debt=my
`I paid a part of my debt.'

b. ***B-in-ayada=k*** *ti* *utangko.*
<PAST>.pay.TR (-an)=1ERG.SG ABS debt=my
`I paid all of my debts.'

In (27a), I may have paid a part of my debt, but in (27b) expresses the probability that I may have paid all of them.

A tentative solution to the above-cited shortcomings can be found in Uson and Faber (2005) who opt for "enriching" the current inventory of logical structures in RRG, instead of establishing a new lexical representation system. Their proposal entails the addition of a new semantic component as shown in the following schema:

[semantic representation] + logical structure = predicate

Here, the bracketed part consists of the set of parameters which differentiate one predicate from others in the same domain (e.g. cognition, emotion manipulation, etc.) , while the second part follows the orthodox practice in RRG. Uson and Faber (2005:

290) gives the following semantic representations for the hyponyms *learn*, *find out* and *discover* using this convention.

learn: BECOME **know'** (x,y)
find out: [PLUSINTENT$_{12}$] BECOME **know'** (x,y)
discover: [MINUSINTENT$_{12}$] BECOME **know**'(x,y)

In the above representations, the lexical function used to indicate intentionality is INTENT. This is then combined with PLUS or MINUS to signal its presence or absence. The two arguments of *find out* and *discover* are represented by the subscripts [12] .

Following this approach, the lexical functions of effort [EFFORT], intent [INTENT], patient affectedness [AFFECT] and patient individuation [INDIVID] which characterize Philippine transitivity need not remain tacit and may now be formally represented in RRG. Combined with PLUS and MINUS (or NON) to signal the presence or absence of the feature, they can now serve to enhance the semantic component of the LS of transitive and intransitive predicates and firm up the basis for the assignment and non-assignment of the Actor and Undergoer macroroles, the correct voice affix to the verb and the right case determiners of the arguments.

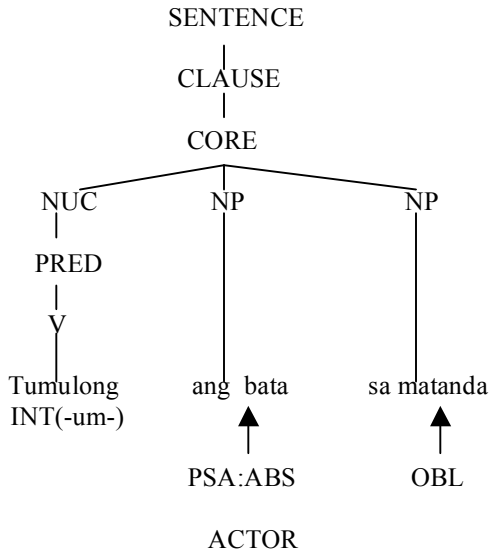
We can try out this new approach with the related verbs *tumulong* and *tulungan.* The "enhanced" LSs of these two predicates in (25a) and (25b) would now look like this:

(25a') LS *tumulong*: [MINUSEFFORT & NONINDIVID] **do'**(bata$_{ACT}$,[**help'** (bata, matanda)]

(25b') LS *tinulungan*: [PLUSEFFORT & INDIVID] **do'** (bata$_{ACT}$, [**help'** (bata, matanda)]
& INGR **helped'** (matanda$_{UND)}$

Here is how the LSs of these two clauses link to their respective syntactic templates:

Figure 3: Linking diagram for (25a)



[MINUSEFFORT & NONINDIVID] **do'**(bata$_{ACT}$,[**help'** (bata, matanda)]

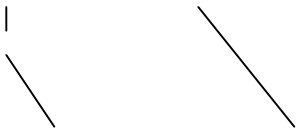
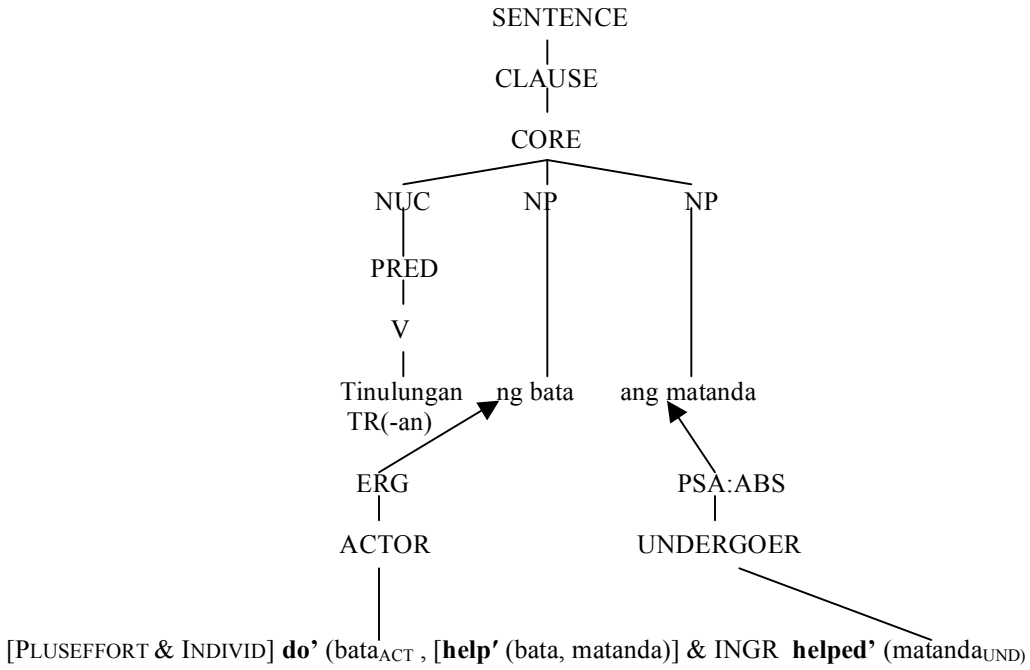


Figure 4: Linking diagram for (25b)



In (25b) in Fig. 4, there are two direct core arguments and two macroroles, an Actor and an Undergoer, which together identifies the construction as an M-transitive. The M-transitivity of (25b) is based on the activity component involving the Actor, the accomplishment semantics of the "helped" Undergoer, the effortful manner of the action and the individuation of the Undergoer. Such individuation is indicated by the definite absolutive case determiner (*ang*) and through co-indexing by the voice-affix (*–an*.) In (25a) in Fig. 1, there are also two direct arguments but only one macrorole argument. The LS of this particular verb exhibits all the features of an intransitive construction: oblique marking and non-individuation of the semantic undergoer, the absence of effort in perpetuating the action, the presence of an activity, non-accomplishment verb and the co-indexing of the Actor by the voice-affix *–um-*.

This innovation in the semantic metalanguage of RRG may just be what is needed to disambiguate the meanings of related intransitive and transitive verbs which have both accomplishment semantics. Take a look at these examples:

Tagalog

(28) a. ***Um-inom*** *ako ng coke*..
PAST. INT(-um-).drink 1ABS OBL Coke
`I drank/took Coke.'

b. ***In-inom-0*** *ko ang coke.*
PAST.drink.TR(-in) 1ERG ABS Coke
`I drank /finished drinking the Coke.'

c. ***Uminom*** *ako ng isa=ng coke.*
PAST. INT(-um-).drink 1ABS OBL one=LKR Coke
`I drank /finished drinking a bottle of Coke.'

(29) a. ***Kumain*** *si Maria ng mangga.*
PAST.AF (-um-).eat ABS.PER Maria OBL mango/mangoes.
`Maria ate mangoes/went eating mangoes.'

b. ***Kinain*** *ni Maria ang mangga.*
PAST.TR(-in).eat ERG.PER Maria ABS.NPER mango/mangoes.
`Maria ate the mango.'

c. ***Kumain*** *si Maria ng isa/dalawa/tatlo=ng mangga.*
PAST.INT(-um-).eat ABS.PER Maria OBL one/two/three=LKR mangoes.
`Maria ate one/two/three mangoes.'

(28a) and (29a) are intransitive "AF" constructions, whose predicates are activity verbs, with no terminal endpoint. The LSs of these activity verbs in (28a) and (29a) may be given as:

(28a') *uminom*: **do'** (ako$_{ACT}$, [**drink′** (ako, Coke)]
(29a') *kumain*: **do'** (Maria$_{ACT}$, [**eat′** (Maria, mangga)].

(28b) and (29b) are accomplishment verbs, whose objects end up being consumed, as shown by their respective LSs,

(28b') *ininom*: **do'** (ako $_{ACT}$, [**drink′** (ako, Coke)] & INGR **consumed**' (Coke $_{UND}$)
(29b') *kinain*: **do**'(Maria $_{ACT}$, [**eat′** (Maria, mangga)]
& INGR **consumed**' (mangga $_{UND}$).

Up to this point, it appears that there is a correlation between intransitive "AF" verbs and activity verbs. There is also a similar correlation between transitive "GF" verbs and accomplishment. But take a look at (28c) and (29c). The only difference between the (c) pair and (a) pair are the quantifier operators modifying the indefinite patients. Yet such quantifiers are enough to trigger a change in the LSs of the (c) pair, from activity verbs into accomplishment verbs. The default interpretation in (c) pair is that the drinking and eating activity terminated with the quantified *Coke* and *mango* being consumed. Thus the LSs of (c) pair anomalously resemble those of the (b) pair.

(28c') *uminom*: **do'** (ako $_{ACT}$, [**drink′** (ako, Coke)] & INGR **consumed**' (Coke)
(28c') *kumain:* **do**'(Maria $_{ACT}$, [**eat′** (Maria, mangga)]
& INGR **consumed**' (mangga).

This account is obviously unacceptable and counter-intuitive considering that these pairs contrast in their voice morphology (i.e. *ininom* vs. *uminom*, *kinain* vs. *kumain*). The easy (but still principled way out) is to assign two macroroles to *ininom* (28b) and *kinain* (29b) , and assign only one macrorole to *uminom* (28c) and *kumain* (29c). The more preferable alternative however is to ground such macrorole assignment on opposing lexical functions in the LSs of these verbs. That way, a pragmatic and semantic motivation can be invoked for the differing voice affixation, case assigment and macrorole numbering. Thus, *ininom* in (28b) and *kinain* in (29b) would have the following embellishment in their LSs:

(28'b revised) *ininom*: [PLUSINTENT] **do'** (ko $_{ACT}$, [**drink'** (ko, Coke)]
& INGR **consumed**' (Coke $_{UND}$)

(29'b revised) *kinain*: [PLUSINTENT]**do**'(Maria $_{ACT}$, [**eat'** (Maria, mangga)]
& INGR **consumed**' (mangga $_{UND}$).

Correspondingly, accomplishment verbs *uminom* and *kumain* in (28c) and (29c) gain a perfunctory and casual manner feature in their LSs via a preceding [MINUSINTENT].

VIII. Concluding Remarks

In this paper, we have tried to capture certain generalizations about Philippine transitivity using the RRG framework. Our analysis identifies the so-called "GF" constructions as the canonical transitive. In RRG terms, "GF" constructions are M-transitive, meaning they contain an Actor macrorole and an Undergoer macrorole in their lexical representations. "AF" constructions, be they single-argument or two-argument, are M-intransitive, which means that they are entitled to at most one macrorole which can either be an Actor or an Undergoer. "AF" constructions with a semantic agent and a semantic patient are syntactically transitive or S-transitive, but are grammatically intransitive or M-intransitive. Macrorole number, case assignment and voice ('focus') selection in PLs are rooted in and dependent on the logical structures of verb classes and the character of their semantic representations. This simply means that the grammatical patterns in PLs are pragmatically and semantically motivated as shown by the copious examples in this paper in several PLs. We have deliberately downplayed the controversy on the language type of PLs, in order to bring into focus the issue of transitivity and how RRG accounts for it. The ergativity of the grammatical patterns in PLs is fairly obvious if we go by its standard definition. But what has been sorely lacking in the literature is discussion on what motivates those ergative patterns. We hope to have shown in this paper that if we are to finally understand Philippine ergativity, we must first understand Philippine transitivity.

ABBREVIATIONS:

A =Actor or Source of the Action; AF = Actor Focus; ABS = Absolutive; Case1=Absolutive; Case 2=Ergative; Case 3=Oblique; Case4=Oblique; DAH= Blue Dahlia; ERG = Ergative; FUT = Future; GEN=Genitive; GF = Goal Focus; INF = Instrumental Focus; INT=Intransitive

Affix; KA = Kaputotan ni Anteb; KG = Kadaugan sa Gugma; L = Locative; LF = Locative Focus; LKR= linker ; LS = Logical structure; LSC = Layered structure of the clause; NEG = Negator; NEUT=Neutral Tense-Aspect; NPAST = Non past; O = Object; OBL= Oblique; P = Patient; PF = Patient Focus; PART= particle; PAST = Past; PER= Personal name; PERF = Perfective; PL = Philippine language; PrP = Pragmatic Pivot; PSA=Privileged Syntactic Argument; Q= question; RRG = Role and Reference Grammar; S = only argument of intransitive construction; TA = tense-aspect; TD = Ti Dalagan; TH = Theme; THF = Theme Focus; TR= transitive affix; U = Undergoer; UDKM= Ugang nga Digo sa Kamot ni Manoling; UF= Undergoer Focus; UKPDKA = Umayka Ponso, Dika Agbabati; 1 = 1st person; 12 = 1st and 2nd person; 2=2nd person; 3=3rd person.

References:

Blake, Barry. 2001. Case. Cambridge: Cambridge University Press. 2nd edition.

Bybee, Joan. 1985. Morphology. Amsterdam: Benjamins.

Comrie, Bernard. 1978. Ergativity. Syntactic typology, ed. by Winfred P. Lehmann, 329-394. Austin: University of Texas Press.

Comrie, Bernard. 1989. Language universals and linguistic typology. 2nd Edition. Chicago: University of Chicago Press.

Cooreman, Ann. 1994. A functional typology of antipassives. In Barbara A. Fox and Paul J. Hopper, eds., Voice: form and function, 49-88. Amsterdam: John Benjamins.

Croft, William. 1991. Syntactic categories and grammatical relations. Chicago: University of Chicago Press.

DeLancey, Scott. 1982. Aspect, transitivity and viewpoint. Tense aspect: Between semantics and pragmatics, ed. by Paul J. Hopper, 167-183. Amsterdam & Philadelphia: John Benjamins.

Dixon, R. M. W. 1979. Ergativity. Lg. 55.59-74.

Dryer, Matthew. 1997. Are grammatical relations universal? In J. Bybee, J. Haiman, and S. Thompson, eds., Essays on language function and language type, 115-143. Amsterdam: Benjamins.

Du Bois, John W. 1985. Competing motivations. In Haiman, John, ed., Iconicity in syntax, 343-365. Amsterdam: John Benjamins.

Du Bois, John W. 1987. The discourse basis of ergativity. Language 63: 805-855.

Foley, William A. and Robert D. Van Valin, Jr. 1984. Functional syntax and universal grammar. Cambridge University Press.

Fox, Barbara and Paul J. Hopper, eds. 1994. Grammatical voice: its form and function. Amsterdam: John Benjamins.

Givón, T., ed. 1998. Grammatical relations. Amsterdam: Benjamins.

Haspelmath, Martin. 1990. The grammaticization of passive morphology. Studies in language 14:25-72.

Hopper, Paul and Sandra Thompson. 1980. Transitivity in grammar and discourse. Language 56, 2:251-299.

Hopper, Paul J. and Sandra A. Thompson. 1984. The discourse basis for lexical categories in universal grammar. Lg. 60.4: 703-752.

Keenan, Edward. 1976. Towards a universal definition of "subject". In Charles N. Li, ed., Subject and topic. New York: Academic Press.

Kemmer, Suzanne. 1993. The middle voice. Amsterdam: John Benjamins.

Klaiman, Miriam H. Affectedness and control: A typological study of voice systems. In Shibatani 1988.

Li, Charles N. and Sandra A. Thompson. 1976. Subject and topic: a new typology of language, 457-489. In Charles N. Li, ed., Subject and topic. New York: Academic Press.

Mallinson, Graham and Barry Blake. 1981. Language typology. Amsterdam: North-Holland Publishing Co.

Mithune, Marianne 1991. The role and motivation in the emergence of grammatical categories: the grammaticization of subjects. In Elizabeth Traugott and Bernd Heine (eds). Approaches to grammaticalization, vol. II, 159-184. Amsterdam and Philadelphia: John Benjamins.

Mithun, Marianne. 1994. The implications of ergativity for a Philippine voice system. In Fox, Barbara and Paul J. Hopper (eds.) Voice: Form and Function. Amsterdam/Philadelphia: John Benjamins, 247-277.

Nolasco, Ricardo Ma. 2003. Ang pagkaergatibo at pagkatransitibo ng mga wikang Pilipino: Isang Pagsusuri sa Sistemang Bose. Ph.D Dissertation. Unibersidad ng Pilipinas Diliman Quezon City.

Ramos, Teresita V. 1974. The case system of Tagalog verbs. Pacific Linguistics B 27.

Saclot, Maureen Joy. 2004. On the transitivity of the actor focus and patient focus constructions in Tagalog. MA thesis. University of the Philippines, Los Banos.

Schachter, Paul. 1976. The subject in Philippine languages: actor, topic, actor-topic, or none of the above. In Li, ed. 491-518.

_____. 1977. Reference-related and role-related properties of subjects. In Cole and Morgan, eds. 279-306.

Schachter, Paul S. and Fe. Otanes. Tagalog reference grammar. Berkeley: University of California.

Shibatani, Masayoshi. 1985. Passive and related constructions: A prototype analysis. Lg. 61:821-848.

Shibatani, Masayoshi, ed. 1988. Passive and voice. Amsterdam: John Benjamins.

Shopen, Timothy, ed. 1985. Language typology and syntactic description (3 volumes). Cambridge: Cambridge University Press.

Thompson, Sandra A. and Paul J. Hopper. 2001. Transitivity, clause structure, and argument structure: evidence from conversation. In Joan Bybee and Paul J. Hopper, eds., Frequency and the emergence of linguistic structure. Amsterdam: Benjamins.

Uson, Ricardo Marial and Pamela Faber. 2005. Decomposing semantic decomposition: towards a semantic metalanguage in RRG. Paper presented at The 2005 International Course and Conference on Role and Reference Grammar. Institute of Linguistics, Academia Sinica, Nankang, Taipei, Taiwan.

Van Valin, Robert D., Jr. In press. Introduction to role and reference grammar. Cambridge: Cambridge University Press

Van Valin, Robert and Randy J. LaPolla. 1997. Syntax. Cambridge: Cambridge University Press.

Verhaar, John. 1990. How intransitive is intransitive? Studies in Language 14.1: 93-168.
Walton, Charles. 1986. Sama and verbal semantics: classification, derivation and inflection. Manila: Linguistic Society of the Philippines.