

## Syntactic Categories in Tukang Besi

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À propos des catégories syntaxiques

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Résumé de l'article

L'examen des catégories syntaxiques du Tukang Besi, une langue austronésienne d'Indonésie, montre qu'il faut compléter les catégories traditionnelles fermées. En dehors des catégories bien définissables des noms et des verbes, il y a beaucoup d'éléments lexicaux qui sont précatégoriels : ils peuvent être utilisés, sans dérivation, soit avec une morphosyntaxe nominale, soit avec une morphosyntaxe verbale. De plus, il existe une classe d'« adjectifs » qui manifeste un comportement bizarre par des renversements de marquage morphologique et par un usage fonctionnel particulier. Après un examen plus approfondi, il se trouve qu'ils ont un statut catégoriel variable, selon la position structurelle dans laquelle ils sont utilisés, apparaissant obligatoirement comme une partie de la tête de leur syntagme, V dans un SV et N dans un SN. Des tests morphosyntaxiques à l'appui sont donnés et discutés.

## SYNTACTIC CATEGORIES IN TUKANG BESI\*

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### 1. Introduction

**T**ukang Besi is typologically a Philippine-type language spoken on a chain of islands known as the *Kepulauan Tukang Besi* in Southeast Sulawesi, central Indonesia. In addition to this location there are also numerous trading communities scattered across eastern Indonesia (Donohue 1997, 1999). Tukang Besi is genetically a Western Malayo-Polynesian language in the Austronesian family, though it shares many morphosyntactic traits with the Central Malayo-Polynesian languages which are spoken south and west of it.

Until the publication of Donohue 1999 there was little in the way of linguistic information available about the language (essentially just the notes in Usmar et al. 1991). On encountering the language in the process of conducting fieldwork through the 1990s, the question of word class membership has been for me not so much a theoretical one as a practical one: how to organize my notes? Although the assumption that each word class present in language which I was familiar with was also present in Tukang Besi would have been easy, it would also have overlooked the structure presented to us by the language, which of course must be the starting point for any linguistic investigation, and the problems in identifying word classes in other related languages.

Like many Austronesian languages there are numerous problems in the question of syntactic category specification of lexical items. The existence of a large number of precategorial roots, which may be used without overt derivation, in a morphosyntactically identical fashion to members of several other syntactic categories means that a description of the types and criteria for syntactic categories will necessarily fail to account for the variation found in about 60%

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of lexical roots. Keeping this in mind, we can, and indeed must, distinguish syntactic categories in the language, despite a large degree of controversy about the concept of absolute syntactic categories in a large number of Austronesian languages.

The concept of clear word classes is needed to describe the direction taken by many derivational affixes; the suffix *-a* ‘nominalizer’ always derives a word that is in the syntactic category noun; similarly, the prefixes *he-* ‘verbalizer’, *hoN-* ‘purposeful verbalizer’, and *hoko-* ‘factive’, among others, always unambiguously derive words that are verbs (interestingly there are more affixes that derive verbs than there are nominal-deriving affixes). In (1) we can see that a nominal root, *kabali* ‘machete’ (which normally appears with a genitive case marker when it is attributive within an NP, a strong indicator of nominal status) must appear with the typically verbal *-um-* infix if it has been earlier derived as a verb with *hoN-*; it is not grammatical to use the typically nominal genitive marker.

- (1) a. nominal root, attributive use:

te mata nu kabali  
 CORE eye GEN machete<sup>1</sup>  
 “the point of the machete”

- b. nominal root, verbal use derived with *hoN-*:

No-hong-abali te pada.  
 3R-VRBLZR<sub>1</sub>-machete CORE kunai grass  
 “They’re using machetes on the kunai grass.”

1 The following abbreviations have been used: 1, 2, 3 stand for first, second and third person; A, S, O stand for the most agentive and most patientive arguments of a transitive verb and the single argument of an intransitive verb, respectively. The other glosses used are:

|          |               |       |               |                     |                            |
|----------|---------------|-------|---------------|---------------------|----------------------------|
| ADJ      | adjective     | N     | noun          | RC                  | relative clause            |
| ADV      | adverb        | NMLZR | nominalizer   | REL                 | relative clause morphology |
| AGR      | agreement     | NOM   | nominative    | SG                  | singular                   |
| ANTICAUS | anticausative | OBL   | oblique       | SI                  | subject infix              |
| CM       | case marker   | OP    | object prefix | V                   | verb                       |
| CORE     | core case     | PC    | precategoryal | VRBLZR <sub>1</sub> | verbalizer 1               |
| DEM      | demonstrative | PF    | perfective    | VRBLZR <sub>2</sub> | verbalizer 2               |
| FREQ     | frequentive   | PL    | plural        |                     |                            |
| GEN      | genitive      | R     | realis        |                     |                            |

- c. nominal root, derived with *hoN-*, used attributively:

te mia [m]ong-abali te pada  
 CORE person VRBLZR<sub>1</sub>.SI-machete CORE kunai.grass  
 “the people using machetes on the kunai grass”

- d. \* te mia nu hong-abali  
 CORE person GEN VRBLZR<sub>1</sub>-machete  
 “the people using machetes”

Paradigms such as these force us to recognize that syntactic categories, at least crude ones such as ‘verbal’ and ‘nominal’, play a part in the organisation of the language, despite the many exceptions to their applicability as a surface descriptor. In the rest of this article I shall examine the morphosyntactic evidence for the different syntactic categories that are found in *Tukang Besi*.

## 2. Precategoriality and dedicated derivational morphology

The specification of many lexical items in *Tukang Besi* does not explicitly mention syntactic category membership; the same form may be used, with no derivational morphology, in both nominal and verbal frames. Rather than lexical specification, the word class of these items is specified by the syntactic environment in which it appears. Thus the same lexeme may appear functioning as a noun in some contexts, and as a verb in others, with the morphological behavior appropriate to its syntactic environment. An example of this can be seen in the following extract from a text, occurring in adjacent lines:

- (2) a. ...ka-atu-mo no-nduu-mo na **tawatawa** i molengo.  
 PRES-that-PF 3R-make.noise-PF NOM hand.gong OBL long  
 “...there it was there, a hand gong (that she’d heard) earlier on was making a noise.”
- b. “E, te ndonga-ndonga o-**tawatawa** -mpaira,...  
 Hey CORE RED-clang 3R-hand.gong-what  
 “... “Hey, what kind of hand-gong-thing is that clanger doing,....””

In (2a) *tawatawa* functions as the head of a noun phrase. Its nominal character in this clause is clear from the case marker preceding it, and the subject agreement on the intransitive verb *nduu* ‘make noise’; *tawatawa* is not affixed to indicate relative clause status (*tumawatawa*), so we must assume it is the nominal head of the NP. In the next line of the text, presented here in part

as (2b), *tawatawa* is prefixed with subject-agreement morphology, and clearly serves as the intransitive verb in the clause whose subject is *te ndongandonga* ‘the clanger’ / ‘the clanging one’. Unlike *kabali* in section 1, which had to be overtly derived in order to appear with agreement in a verbal position, *tawatawa* may be used directly in verbal functions. Lexemes such as *tawatawa* require the nominalizing suffix to refer to the abstract action, but have another (related) meaning when used nominally without the suffix.

We have already seen the use of some of the verbalizing prefixes in section 1. An asymmetry emerges when we consider the fact that the nominalizing suffix *-’a* cannot be used on lexical items already specified as nouns, whereas, for example, *he-* may be used with items already specified as verbs. Compare (3), which shows that *-’a* may, and must, be used with specified verbal roots when nominal, and (4), where we can see that a lexical item which is already specified as a noun cannot take *-’a*.

- (3) a. To-soro te kolikoli=’u.  
 1PL.R-push CORE canoe=2SG.GEN  
 “We pushed your canoe.”
- b. Te soro-’a=no no-ja’o ala’a.  
 CORE push-NMLZR=3GEN 3R-bad just  
 “The pushing was pretty bad.”
- c. \*Te soro=no no-ja’o ala’a.  
 CORE push=3GEN 3R-bad just
- (4) a. No-mobai na kau.  
 3R-hard NOM wood  
 “The wood is hard.”
- b. \*Te kau-’a.  
 CORE WOOD-NMLZR

In contrast, the verbalizing *he-* is allowed with verbs as well as nouns, with a slight meaning change, as seen in (5) and (6):

- (5) a. To-hon-soro te kolikoli=’u.  
 1PL.R-VRBLZR<sub>1</sub>-push CORE canoe=2SG.GEN  
 “We really shoved your canoe.”
- b. To-he-soro te kolikoli=’u.  
 1PL.R-VRBLZR<sub>2</sub>-push CORE canoe=2SG.GEN  
 “We (sort of) pushed your canoe.”

(6) a. No-hong-au='e.  
 3<sub>R</sub>-VRBLZR<sub>1</sub>-wood=3O  
 "They smashed it with wood."

b. No-he-kau='e.  
 3<sub>R</sub>-VRBLZR<sub>2</sub>-wood=3O  
 "They used wood on it."

We can conclude that not only do the derivational affixes differ in the specification of the syntactic category of their output, but also in the degree of specification of the syntactic category of the input items as well. For instance, the suffix *-a* specifies a non-noun input, and a noun output. In contrast, *he-* and *hoN-* specify only a verb output, without reference to the syntactic category of the input item.

(7) *-a*: X[-N] + *-a* → X-'*a*[N]

(8) *he-*: X[±N, ±V] + *he-* → *he*-X[V]

Similar precategorial behavior is found with words describing more permanent properties, such as *leama* 'good', which may function as a predicate (*Noleama*, 'He/She is good. '), or a referential expression in an NP (*te leama*, 'the good (one)', or the good(ness)'; the NP may refer either to someone or something possessing this property, or to the property itself). With an adjective beginning with *mo-*, such as *molengo* 'long (time)', the use of the lexeme in a NP requires less morphology than the predicative use, since the fossilized *mo-* prefix is not retained in referential use: *te lengo*, 'the long (length of time)', or 'the length', compared with *Nomolengo* 'It was long.', but \**Nolengo*. With adjectives with the fossilized *ma-*, the prefix is always retained when referential (*te mamuda* 'the comfortable (one)'/ 'the comfort'), and adjectives with *me-* show variable behavior: *te langka* / *te melangka* 'the long (one)' / 'the length', and *Nomelangka*. It is worth noting that the most omittable of these 'prefixes', *mo-* and *me-*, are also productive verbal prefixes, *mo-* anticausative and *me-* frequentive:

(9) a. No-mo-sai=mo.  
 3<sub>R</sub>-ANTICAUS-make=PF  
 "They are made."

b. *No-me-sai='e*.  
 3<sub>R</sub>-FREQ-make=3O  
 "They often make them."

There do not appear to be many lexemes that are always unambiguously either nouns or verbs, but not both. Certainly (at least most) 'nominals' can occur in verbal positions, without derivational morphology. Some verbs require overt derivation, using the nominalizing suffix *-a*, to appear as nouns. This is the case with *'ita* in (3).

Although no counts or extensive testing have been done, there are, impressionistically, fewer purely nominal lexemes than there are purely verbal lexemes; that is, a greater proportion of words that would be classed as 'nouns' from an English perspective display precategorical behavior than do words which are more 'verbal.'

### 3. Discourse functions and morphological marking

An approach to determining syntactic categories advocated by Croft 1991: 66ff examines the morphological traits of different semantic types of words in different functional environments. Under this approach, proto-typical objects, properties, and actions are examined in referential positions, in (NP) attributive positions, and in clausal predicate positions. The claim is that objects are at their least marked in referential positions, properties in attributive positions, and actions in predicative positions. Examining this claim in English, we can see that this is borne out. Table 1 shows the morphosyntactic traits of the different semantic types in different functions; any morphology beyond that required for that lexical item is shown in bold.

Table 1  
Discourse function linked to semantic type

|            | REFERENTIAL          | ATTRIBUTIVE        | PREDICATIVE        |
|------------|----------------------|--------------------|--------------------|
| OBJECTS    | <i>A dog</i>         | <i>dog's house</i> | <i>It is a dog</i> |
| PROPERTIES | <i>A big one</i>     | <i>big book</i>    | <i>It is big</i>   |
| ACTIONS    | <i>A running one</i> | <i>running dog</i> | <i>It runs</i>     |

The interested reader is referred to Croft 1991, especially pages 66, 67, for further discussion of this approach to the determination of lexical categories. Here I shall simply note that a multi-dimensional approach such as this one produces a more testable and defined answer to the question of lexical category membership than does, for instance, simply examining one morphosyntactic

property in one function (eg., the use or non use of obligatory copular verbs when predicative).

Examining the morphosyntactic marking of different semantic types in *Tukang Besi*, in their different discourse functions, we find that there is an immediate problem when it comes to property expressions, which show three types of morphological behavior. Predicatively they are all identical, the adjective appearing in its usual form with a subject agreement prefix, as seen in (10), which contain a representative each of the three main types of property expressions, as organized according to their morphosyntactic behavior (the two verbs glossed as 'big', *to'oge* and *mobo**ha*, have mainly the same semantic extensions, though *mobo**ha* is more likely to be used with the meaning 'grand, spectacular'; both are in normal use when referring to size).

Predicate:

- (10) a. No-to'oge na woleke iso.  
           3R-big       NOM rat       yon  
           "That rat is big."  
       b. No-mobo

Attributively, however, we see a difference between the first two types and the last, where the first two appear in bare form, and the last requires the use of the subject subordinating infix *-um-*:

Attribute in NP:

- (11) a. Te woleke to'oge   b. Te woleke mobo

This is not, however, an irregularity: the *-um-* infix is that regularly associated with verbs in attributive position (that is, in relative clauses), when modifying a noun which is the subject of that relative clause:



- (12) Te   woleke t[um]inti  
       CORE rat       run.SI  
       “the running rat”

In fact, it is simple, and morphologically consistent, to hypothesize that words such as *lule* belong to the syntactic category of verb, and that *to'oge* and *mobo*ha are members of a syntactic category which is distinct from this (and to which the majority of property-expressions belong, based on their morphosyntactic behavior). The categorical identity of *to'oge* and *mobo*ha will be addressed in section 3.

Continuing the exposition of the property items, we also find a difference when they are used referentially, whereas adjectives that do not begin with *mo-*, *me-* or *ma-* appear in the same form as referential heads of NPs; many verbs with the *mV-* prefix (historically productive, but synchronically fused with the root) lose this prefix. The verbal properties again take the morphosyntax associated with actions (and other lexical items with the morphosyntactic characteristics of verbs, such as *lule*), and again appear with the *-um-* infix:

- (13) a. Te   to'oge                                       b. Te   -baha  
       CORE big   CORE big  
       “the bigness / the big one”               “the bigness / the big one”
- c. Te   l[um]ule  
       CORE naked.SI  
       “the naked one”

This provides an interesting counter to Croft's claim that property concepts will never appear with more morphology in attributive functions than they do in referential or predicative functions. Other examples (for instance, the behavior of adjectives in German) also support the view that Croft's claims are not universals, but merely tendencies across languages. The morphological distribution for property concepts is given in table 2.

Table 2  
 Morphology associated with properties in Tukang Besi

|            | REFERENTIAL      | ATTRIBUTIVE        | PREDICATIVE     |                  |
|------------|------------------|--------------------|-----------------|------------------|
| PROPERTIES | <i>te to'oge</i> | <i>'obu to'oge</i> | <i>noto'oge</i> | : non verbal     |
|            | <i>te baha</i>   | <i>'obu moboha</i> | <i>nomoboha</i> | : non verbal     |
|            | <i>te lumule</i> | <i>obu lumule</i>  | <i>nolule</i>   | : verbal pattern |

We have already described the appearance of verbal morphological patterns in connection with *lule*. The same patterns appear with other verbs, including more typical action concepts, both intransitive and transitive. With a transitive verb either the agent or the theme may be the referential focus, or the modified noun, and the different grammatical functions are distinguished by a different morphology on the verb.

Head of NP:

- (14) Te t[um]ode  
CORE flee.SI  
“the fleeing one”
- (15) a. Te k[um]aha                      b. Te (n)i-kaha  
CORE bite.SI                              CORE OP-bite  
“the biting one”                        “the bitten one”

Attribute in NP:

- (16) Te woleke t[um]ode  
CORE rat flee.SI  
“the fleeing rat”
- (17) a. Te woleke k[um]aha              b. Te woleke (n)i-kaha  
CORE rat bite.SI                              CORE rat OP-bite  
“the rat that bit (something)”          “the rat that was bitten (by  
something)”

Predicate:

- (18) No-tode=mo na woleke.  
3R-flee=PF NOM rat  
“The rat’s bolted.”
- (19) No-kaha=mo te ’obu na woleke.  
3R-bite=PF CORE dog NOM rat  
“The rat bit a dog.”

Putting these patterns together, we can see that verbs, the syntactic category associated with actions and, as seen earlier, some properties, is always marked when not predicative.

Table 3  
Morphology associated with actions in Tukang BESI

|         | REFERENTIAL      | ATTRIBUTIVE          | PREDICATIVE   |          |
|---------|------------------|----------------------|---------------|----------|
| ACTIONS | <i>te tumode</i> | <i>woleke tumode</i> | <i>notode</i> | INTR     |
|         | <i>te kumaha</i> | <i>woleke kumaha</i> | <i>no'aha</i> | TR agent |
|         | <i>te nikaha</i> | <i>woleke nikaha</i> |               | TR theme |

Examining object concepts, we find a different pattern. The objects, in contrast to both the verbs and the (as yet indeterminate, though apparently separate) properties, show a clear split from the rest, being the only syntactic category to appear with genitive marking when attributive. There being no copular verb in Tukang BESI, there is no special marking on a nominal when it is predicative.

Head of NP:

- (20) Te woleke  
CORE rat  
“(the) rat”

Attribute in NP:

- (21) Te iku **nu** woleke  
CORE tail GEN rat  
“the rat’s tail”

Predicate:

- (22) a. Te atu te woleke. b. Te woleke na ni-’ita=su.  
CORE that CORE rat CORE rat NOM OP-see=1SG.GEN  
“That’s a rat.” “It’s a rat that I saw.”

Summarizing these data, the object concepts have the following morphosyntactic traits in different discourse functions. Notice that they are quite different from those seen for either properties or actions.

Table 4  
Morphology associated with (semantic) objects in Tukang BESI

|         | REFERENTIAL      | ATTRIBUTIVE             | PREDICATIVE      |
|---------|------------------|-------------------------|------------------|
| OBJECTS | <i>te woleke</i> | <i>te iku nu woleke</i> | <i>te woleke</i> |

Finally we have those lexical items which do not require derivation to appear in different functions. In some cases there is more than one possibility for morphological requirements in a position. The sentences and phrases illustrating the behavior of a typical precategorial lexeme are given below.

Head of NP:

- (23) Te tomba  
       CORE mud  
       “mud”

Attribute of NP:

- (24) a. Te sala tomba                      b. Te sala t[um]omba  
       CORE road mud                        CORE road mud.SI  
       “muddy road”                         “(newly?) muddy road”

Predicate:

- (25) a. Te atu te tomba.                    b. Te atu no-tomba.  
       CORE that CORE mud                    CORE that 3R-mud  
       “That’s mud.”                         “That’s mud.”

There is not a lot of difference in meaning between these last two examples, at most the possibility of having aspect marking on the second of them, though this is not by any means required.

Although this lexeme has a fairly real-world referential ‘feel’ to it, the same behavior is found with other lexical items such as *ahaji* ‘Sunday’, *atiho* ‘sneeze’, *da’olaro* ‘angry’, *gau* ‘desire, wish’ and *gere* ‘fight’. It is clear that there is no one clearly defined semantic type that matches the precategorial roots, though it is true that most real-world objects are treated precategorially in *Tukang Besi*, usually with either an instrumental or inchoative sense when used with verbal morphology.

In NP:

- (26) a. Te ba’e  
       CORE fruit  
       “fruit”

In VP:

- b. No-ba’e.  
       3R-fruit  
       “It’s bearing fruit.”  
       “It’s ripened to become fruit.”

- (27) a. Te ha'o  
CORE hammer  
"hammer"
- b. No-ha'o.  
3R-hammer  
"He/She hammers."
- (28) a. Te hoti  
CORE food/drink  
"meal"
- b. No-hoti.  
3R-give.charitably  
"He/She gives [food or old  
clothing] to the poor."

Summarizing the morphosyntactic evidence gathered so far, under the categories noun, verb, precategorial, and the 'adjective' class, we can see their distribution in the following table.

Table 5  
Discourse function linked to syntactic category in Tukang Besi

|               | REFERENTIAL | ATTRIBUTIVE            | PREDICATIVE   |
|---------------|-------------|------------------------|---------------|
| NOUN          | CM N        | HEAD GEN N             | CM N          |
| 'ADJECTIVE'   | CM Adj      | Head = (mo)Adj         | AGR-(mo)Adj   |
| VERB          | CM V.REL    | Head V.REL             | AGR-V         |
| PRECATEGORIAL | CM PC       | HEAD PC<br>HEAD PC.REL | CM N<br>AGR-N |

Abbreviations: CM case marker; GEN genitive case marker; AGR S/A agreement marker; REL relative clause morphology; PC precategorial root.

Although it is clear that the noun and verb categories are distinct, there is a much more confused picture when we consider the 'adjectives'; when referential, they appear with the same morphosyntax as nouns, and when predicative they appear with verbal morphosyntax. The next section shall examine the morphosyntax of adjectives in attributive functions in more detail.

#### 4. The phrasal position of adjectives

We have already seen that the overt morphology associated with adjectives is identical to that of nouns when referential, and to that of verbs when predicative. This section will examine the morphosyntax associated with adjectives in modifying and predicative position.

## 4.1 Attributive adjectives

As modifiers adjectives display none of the morphology associated with either nouns or verbs, neither the genitive case of nouns or the relative clause marking of verbs. The morphosyntax of this attributive function shall be examined in more detail, showing that the behavior is more complex than simply that representative of a distinct syntactic category.

We have already seen examples of adjectives used attributively; one such example is repeated below as (29):

- (29) a. Te   woleke to'oge                    b. Te   woleke moboha  
       CORE rat       big                    CORE rat       big  
       “the big rat”

What was not described earlier is the restriction on the number of such adjectives that may occur in any one NP. With attributive nouns in genitive phrases, there may be (theoretically) limitless recursion:

- (30) Te   'obu [<sub>GEN</sub> nu wulumba'a [<sub>GEN</sub> nu ama=su]]  
       CORE dog       GEN neighbor       GEN father=1SG.GEN  
       “my father's neighbor's dog”

With relative clauses, we can find examples of more than one relative clause in an NP, and all modifying the same head noun:

- (31) Te   'obu [<sub>RC</sub> t[um]inti i   iso] [<sub>RC</sub> ni-'ita=su]  
       CORE dog       run.SI       OBL yon   OP-see=1SG.GEN  
       “the dog running over there which I saw”

With adjectives, however, cases of multiple adjectives with the morphosyntactic behavior seen above are not found:

- (32) \*Te   'obu [<sub>ADJ</sub> to'oge] [<sub>ADJ</sub> biru]  
       CORE dog       big                   black  
       “the big black dog”

Reversing the order of the adjectives, or using adjectives with *ma-*, *me-* or *mo-* prefixing (arguably more derived) does not affect the grammaticality of the phrase:

- (33) \*Te 'obu [<sub>ADJ</sub> biru] [<sub>ADJ</sub> to'oge]  
       (34) \*Te 'obu [<sub>ADJ</sub> moboha] [<sub>ADJ</sub> biru]

There is simply only one *adjective* position; additional adjectives are allowed, but only if they are treated morphologically as if they were verbs, with the subject infix *-um-*:

(35) Te 'obu [<sub>ADJ</sub> to'oge] [<sub>ADJ</sub> b[**um**]iru]  
 CORE dog big black.SI  
 "the big black dog"

(36) Te 'obu [<sub>ADJ</sub> biru] [<sub>ADJ</sub> t[**um**]o'oge]  
 CORE dog black big.SI  
 "the black big dog"

Note that the construction seen in (35, 36) is not morphologically the same as an NP with attributive adjective(s) and a further predicative one; the morphosyntax of this would be that seen in (37):

(37) a. Te 'obu to'oge b[**um**]iru no-mosega.  
 CORE dog big black.SI 3R-naughty/dangerous  
 "The big black dog is vicious."

b. Te 'obu to'oge no-biru.  
 CORE dog big 3R-black  
 "The big dog is black."

Phrases of this sort can be freely used in any position where another NP would appear, as genitive modifiers of other nominals, as arguments of verbs, etc.

An adjective with the subject infix *-um-* may not precede an adjective without this infix:

(38) \* Te 'obu [<sub>ADJ</sub> t[**um**]o'oge] [<sub>ADJ</sub> biru]

It appears that the adjectival modifying position is in some way privileged. This emerges in terms of the structural position as well when we consider the behavior with possessive clitics. A pronominal possessor is almost always marked by means of genitive clitic pronouns on the noun; this has already been seen in earlier examples. When examined with respect to other forms of nominal attributions, the following positional patterns emerge:

Genitive clitic in NP with demonstrative:

(39) Te wunua=su iso  
 CORE house=1SG.GEN yon  
 "that house of mine"

Genitive clitic in NP with relative clause:

- (40) Te wunua=su [<sub>RC</sub> t[um]ade i iso]  
 CORE house=1SG.GEN stand.SI OBL yon  
 “the house of mine standing over there”

Genitive clitic in NP with adjective:

- (41) Te wunua to'oge=su  
 CORE house big=1SG.GEN  
 “my big house”

Only the adjectivally-encoded property may appear before the genitive clitic pronoun. When two adjectives are involved in an NP, with one obligatorily appearing using relative clause morphology, then only the first, bare, adjective may be inside the clitic:

- (42) a. Te 'obu [<sub>ADJ</sub> to'oge]=su [<sub>ADJ</sub> b[um]iru]  
 CORE dog big=1SG.GEN black.SI  
 “my big black dog”
- b. Te 'obu [<sub>ADJ</sub> biru]=su [<sub>ADJ</sub> t[um]o'oge]  
 CORE dog black=1SG.GEN big.SI  
 “my black big dog”

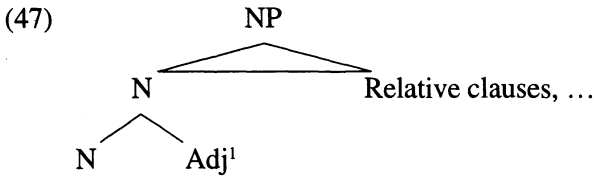
- (43) a. \* Te 'obu [<sub>ADJ</sub> to'oge] [<sub>ADJ</sub> b[um]iru]=su  
 CORE dog big black.SI=1SG.GEN
- b. \* Te 'obu [<sub>ADJ</sub> biru] [<sub>ADJ</sub> t[um]o'oge]=su  
 CORE dog black big.SI=1SG.GEN

The data seen in this section supports the idea that there is a special constituent, which I shall call N' for the moment, and which maximally consists of a noun and an adjective; the adjective is in effect incorporated (following Baker 1988) into the noun. Phonological evidence for this is present in the form of stress shifting. Stress is normally penultimate, and with an adjective (but not other modifiers) this primary stress (which is easily discernible due to a marked high, flat contour) shifts to the penultimate position of the N + Adj unit:

- (44) Te 'obu [<sub>DEM</sub> ana]: [tɛ ʔoɓu 'ana], \* [tɛ ʔoɓu 'ana]  
 (45) Te 'obu [<sub>RC</sub> tuminti]: [tɛ ʔoɓu tu'minti], \* [tɛ ʔo,ɓu tu'minti]  
 (46) Te 'obu [<sub>ADJ</sub> to'oge]: [tɛ ʔo,ɓu to'oge], \*? [tɛ ʔoɓu to'oge]



These facts, the restrictions on the number of unmarked attributive adjectives, the position with respect to genitive clitic pronouns, and the pattern of stress shift, suggest a structure with the following relationships (ignoring the details of the rest of the NP structure):



#### 4.2 Predicative adjectives

We have already seen that the basic morphosyntax associated with adjectives in predicative functions is identical to that found with verbs. In this section we shall see that the behavior of adjectives is in fact identical to verbs when predicative, in contrast to nouns.

A difference between nouns and verbs in predicative positions is the ability of verbs to take the clitics =*mo*, =*ho* and =*do* as aspectual markers. Not all verbs may appear with all clitics, which the following distinctions show:

- (48) a. *Te 'obu no-tinti=mo.*  
 CORE dog 3<sub>R</sub>-run=PF  
 "The dog is running / has run."
- b. *Te 'obu no-tinti=ho.*  
 CORE dog 3<sub>R</sub>-run=still  
 "The dog is still running."
- c. *Te 'obu no-tinti=do.*  
 CORE dog 3<sub>R</sub>-run=EMPH  
 "The dog is running first."

With nouns, this is not an option; any aspectual information must be presented with separate particles, or with auxiliary verbs:

- (49) a. *Te ia te guru.*  
 CORE dog CORE teacher  
 "He's a teacher."

- b. Te ia mondo te guru.  
 CORE dog already CORE teacher  
 "He's already a teacher."
- c. Te ia ane=ho te guru.  
 CORE dog exist=still CORE teacher  
 "He's still a teacher."

- (50) a. \* Te ia te gurumo.  
 b. \* Te ia te guruho.  
 c. \* Te ia te gurudo.

With adjectives, the same set of clitics are used as were seen in verbs, and with the same meanings.

- (51) a. Te 'obu no-to'oge=mo.  
 CORE dog 3R-big=PF  
 "The dog is big / has become big already."
- b. Te 'obu no-to'oge=ho.  
 CORE dog 3R-big=still  
 "The dog is still big."
- c. Te 'obu no-to'oge=do.  
 CORE dog 3R-big=EMPH  
 "The dog is big, as its most salient characteristic."

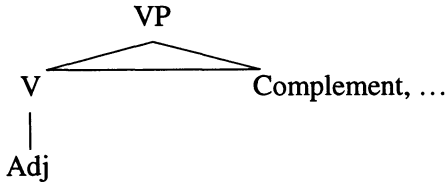
Not only do adjectives take the agreement markers associated with verbs, but they also take the full range of aspectual marking, with the same set of meanings (=mo may be used with some nominal predicates, but with a different meaning of emphasis rather than perfectivity, probably a loan from Makasar Malay, in which *-mi* has this function).

Another trait that adjectives share with verbs is the ability to take a complement.

- (52) Te ana=no [<sub>VP</sub> no-to'oge [<sub>NP</sub> ngga te anu=su] ].  
 CORE child=3.GEN 3R-big than CORE whatsit=1SG.GEN  
 "Their child is bigger than my one."

This information, combined with the fact that attributive adjectives are also eligible for the full range of verbal relative clause marking when forced away from the head, further suggests that adjectives, when dominated by a VP, must appear as the head of that VP:

(53)



#### 4.3 The realisation of adjectives

Given the models seen in 4.1 and 4.2, we note that the morphosyntax associated with adjectives is always identical to one of the other major syntactic categories, either nouns or verbs: there is no (overt) morphosyntax uniquely associated with adjectives. We can recognize the prefixes *ma-*, *me-*, and *mo-* on some (approximately 60%) adjectives, but these are no longer functioning as productive morphemes, derivational or otherwise. Historically, they are clearly related to the *ma-* prefix that is used with non-controlled predicates in many languages of the Philippines, with vowel harmony as an earlier process (still productive in many parts of Central Sulawesi) that created the distinctions between the three fossilized prefixes.

When the adjective appears in a phrase headed by an N, then it must appear as the head of that phrase; this is accomplished through incorporation with the nominal head (if present), a strategy only available for one adjective. A second (or third) adjective modifying in an NP must appear in a relative clause, where it is in a VP, and so must appear as the head of that phrase, as the item that in a main clause carries the agreement morphology and any aspect marking, and when subordinate must appear with a relativizing infix *-um-*.

We thus have a word class which is distinct from either nouns or verbs, but which only appears with the morphosyntactic characteristics of either nouns or verbs, depending on the environment in which it is found. When in an NP, the adjective must appear as the head of the NP, either through being the only referring expression ('the big [one]', where [one] is not realized in *Tukang Besi*), or through incorporating into the position occupied by the noun (see section 4.1). When predicative, the adjective must appear in a VP: the examples we have seen offer no evidence for incorporation, but it should be noted that inchoative meanings of properties can be expressed either with the perfective aspectual clitic, or with that clitic optionally attached to the adjective, which is incorporated into *jari* 'become'. Both these options are seen in (54).

- (54) a. Te ana=su iso [<sub>VP</sub> no-to'oge=mo ].  
 CORE child=1SG.GEN yon 3R-big=PF  
 "My child has gotten big / has grown up."

- b. Te ana=su iso [<sub>vp</sub> no-jari-to'oge=mo ].  
 CORE child=1SG.GEN yon 3R-become-big=PF  
 "My child has become big / has grown up."

*Jari* is an otherwise normally inflecting verb in *Tukang Besi*, capable of appearing independently without an incorporated element, or with an incorporated noun.

- (55) a. No-jari=mo na ganda ako te karia'a.  
 3R-become=PF NOM orchestra PURP CORE circumcision.festival  
 "The orchestra for the circumcision festival has come together."
- b. No-jari-raja=mo ].  
 3R-become-king=PF  
 "He became king."

The fact that an alternative to the adjective-as-verb treatment when predicative, namely the incorporation of the adjective into a normal verb, exists is perhaps evidence for a more abstract incorporation explaining the occurrences of adjectives when there is no overt verb: the adjective has incorporated into an 'empty' verb filling the V position. This hypothesis remains to be investigated further; it is certainly compatible with the data from the language.

This variable behavior, appearing with verbal morphosyntax in some environments and with nominal morphosyntax in others, is a trait not shared by either nouns or verbs, and so defines adjectives as a unique class.

## 5. Minor syntactic categories

The other syntactic categories in *Tukang Besi* are best seen as derived from the main ones described above. Prepositions are mainly ambiguous between being a separate category and a subset of serial verbs, and do not display a consistent set of morphological characteristics, and so have not been considered here.

Pronouns are a subclass of nouns, with the only morphosyntactic difference between the two being the inability of a pronoun to appear possessed with genitive pronominal clitics. Any of the other characteristics of nouns are available to pronouns, including modification by adjectives, relative clauses or demonstratives.

## 6. Conclusion

We have seen that even in a language with extensive precategoriality of lexical roots there is a strong need to recognize the syntactic categories of noun, verb and adjective, and to distinguish certain morphological traits that are unique for the different syntactic categories.

This said, there is a clearly separate syntactic category of adjective that lacks any expressive morphosyntax of its own, and can only be expressed through the morphology appropriate to nouns and verbs. With the treatment of adjectives in *Tukang Besi* we can see that there is the possibility of having a syntactic category that is inexpressible at the surface, by which rides on the morphological and structural categories of other syntactic classes. In *Tukang Besi* the adjective can only appear under an N node if it is dominated by an NP, compounding with a pre-existent head noun if necessary, and under the V node if it is in a VP. There is no unique morphology for adjectives, and yet they are clearly shown to be a separate syntactic category.

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