work to be used for linguistic analysis will be Critical Discourse Analysis by Norman Fairclough. Content analysis will be used to consider violation of children rights in the printed advertisements. The computer software, SPSS, will be used to analyse the data from the coding sheets for content analysis.

Yury Lander

WESTERN INDONESIAN PRENOMINAL MODIFIERS AND COMPOSITIONAL OBLIGATORINESS

1. Introduction

In general, Western Indonesian languages can be considered right-branching as concerns their noun phrases (NPs). In other words, in these languages modifiers normally follow their nominal heads. Yet, the descriptions of the linguistic area frequently mention adnominal modifiers that precede

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1 Western Indonesian languages do not constitute a genetic unit, yet they share a number of traits that distinguish them from Austronesian languages spoken to the North of the Indonesian archipelago and in Madagascar on the one hand and from Central-Eastern Malayo-Polynesian languages spoken in Eastern Indonesia and Oceania on the other hand (this geographical reference should be taken too rigidly, of course); see Wolff 1996; Alieva 1998; Himmelmann 2005; Donohue 2007; Sirk 2008 inter alia. The sample of western Indonesian languages used here is a convenience sample; nonetheless it includes languages of different areas of West Indonesia, such as Aceh, Gayo, Nias and Batak languages of the Sumatra area (the same area is thought to be the homeland of Malay, of which Indonesian is a variety), Javanese and Sundanese of Java, Begak of Borneo, Bugis and Muna of Sulawesi.
their heads rather than follow them. These prenominal modifiers include mainly various quantity expressions (QEs), but also some other elements like those conveying the meaning ‘former’ and also (for some languages) possessors. The following examples from Indonesian illustrate the relevant constructions (prenominal modifiers are italicized):²

Indonesian

(1) dua ekor harimau
   two CLR tiger
   ‘two tigers’

(2) bekas presiden Korea Selatan
    trace president Korea South
    ‘a/the former president of South Korea’

(3) ke saya punya alamat email
    to I have address email
    ‘to my email address’ (colloquial)

I will argue that the position of prenominal modifiers has semantic basis. In Section 2 I will introduce this basis and in Sections 3–8 I will discuss various facts that this proposal can explain. Section 9 is devoted to the relations between the special characteristics of prenominal modifiers and right-branching of western Indonesian NPs. Finally, in Section 10 I discuss the issues that still need investigation.

2. Compositional obligatoriness

The basic proposal of this paper is that prenominal modifiers are compositionally obligatory. Informally, compositional obligatoriness is thought here to be a matter of connecting an expression to its immediate context. More formally, I assume that a compositionally obligatory element of a phrase should satisfy the following two characteristics:

(i) the (correct) interpretation of the phrase should be impossible without this element; in fact, such elements are most often even cannot be recovered from the context;

(ii) the interpretation of this element should require the interpretation of all other elements of the constituent; in other words, a compositionally obligatory element should have wide scope over other elements of the constituent.

Both these characteristics are necessary for an element to be compositionally obligatory, none of them is sufficient by itself. For example, a “non-intersective” adjective like *skillful*, which cannot get its own interpretation without a modified noun and hence satisfies the second requirement in a combination *ADJECTIVE + NOUN*, is nonetheless not compositionally obligatory, because it does not affect the meaning of the nominal constituent crucially: the noun without such an adjective still gets an interpretation which can serve as a description of the relevant individual. Similarly, the possessor in *a friend of mine* is not compositionally obligatory, since its reference cannot be established without an appeal to the semantics of the possessum, although it presumably satisfies the first requirement. On the other hand, determiners are compositionally obligatory, for they have scope over the whole NP and in addition provide the reference that the constituent requires to be interpreted correctly in a given context.

Notably, the particle analogues of articles in western Indonesian languages, which are likely to be considered determiners, precede nouns; cf.:

Muna (van den Berg 1989: 105)

(4) o dahu maitu

\begin{tabular}[t]{l}
\textsc{art} \\
\text{dog} \\
\text{that} \\
\end{tabular}

\text{‘the dog’}

The same holds for analytical plural markers (‘plural words’, according to Dryer’s 1989 terminology), but this is natural, since their appearance often

\footnote{The most extensive study of articles in western Indonesian languages is still Brandstetter 1913. Note that in my paper, I disregard languages where articles are encliticized to the head, such as Bugis (see examples 8).}
implies definiteness. For example, as Ogloblin (1986: 119) notes for Madurese, the marker *para* indicating the human plurality requires either the reference to the whole class of persons described by the nominal or the reference to a group of persons that is already established, and that is why the use of *para* is unlikely with highly abstract nouns like *orèng* ‘person’. In the 2008 grammar of Indonesian written by the same author, he repeats this for the related Indonesian plural word *para* (Ogloblin 2008: 188).

Both articles and definite plural markers are compositionally obligatory: indeed, compositional obligatoriness is typical for grammaticalized “function words”. In what follows, however, I will discuss the elements that do not belong to any closed class of function words but are members of open lexical classes. I will show that there are various arguments suggesting that such elements occurring in the prenominal position are associated with compositional obligatoriness as well.

3. Lexical kinds of quantity expressions

It is now generally accepted that QEs can be interpreted as determiners, which “connect” the descriptive part of NP to other material of the clause. For example, in the clause *Three minutes left*, the quantifier *three* can be interpreted as an element connecting the nominal to the predicate:

THREE x [MINUTE(x)] LEFT(x).

For most QEs, however, such interpretation is not necessary (see Partee 1995 for an overview of the topic). The same QE *three* can in principle be understood as a one-place predicate. Then the interpretation of the clause just mentioned would be (very roughly): 4

∃x [THREE(x) & MINUTE*(x)] LEFT(x),

i.e.: ‘There is a set of minutes consisting of three elements that left’.

While the first interpretation presumes compositional obligatoriness, the second does not. However, there are some QEs that require the determiner

4 Křtka (1995) argued that even such interpretations of numerals should take into account the nominal semantics, but here I abstract away from such issues.
interpretation. These include distributive quantifiers like every, each, partitive quantifiers like most, and quantifiers like only. In addition, collective QEs like both are also at least very inclined to the determiner interpretation.

This semantic representation nicely correlates with the facts observed in western Indonesian languages. Here, QEs can often occur either pronominally or postnominally; cf. the following examples from Acehnese and Toba-Batak:

Acehnese (Durie 1985: 108)

(5) a. duwa droe ureueng nyang sakêt nyoe
two CLR person REL sick this
b. ureueng nyang sakêt duwa droe
person REL sick two CLR
‘two sick people’

Toba-Batak (Nababan 1981: 197)

(6) a. dua makkuk kopi
two cup coffee
b. kopi dua makkuk
coffee two cup
‘two cups of coffee’

5 Note, however, that even if a language allows both the prenominal and postnominal positions for a QE, one of these positions can be highly preferred and there are no hints as to which of the two positions it is likely to be. For example, in Indonesian, numerative complexes (i.e. combinations of numerals with classifiers and measure words) are possible both in prenominal and postnominal positions (see Aliева at al. 1972: 380–381), but the prenominal position seems to be preferred and moreover, simple numerals (without a classifier) serving the quantifying function cannot follow nouns at all (Donohue 2007: 369). In Begak, on the contrary, numerative complexes tend to follow nouns even though the prenominal position is possible for them as well (Goudswaard 2005).
However, if a language restricts the position of a QE, it restricts it to the prenominal position.\(^6\) A closer inspection reveals the fact that those QEs whose position is restricted are exactly those quantifiers that require the determiner interpretation.\(^7\) For example, Durie (1985: 143) explicitly claims that the quantifiers *tiep* ‘every’ and *meung* ‘only, even, approximately’ can only occur prenominally, unlike other quantifiers. Similar observations can be found in descriptions of other languages, for example, Karo-Batak (Wollams 1996: 127) and Indonesian (Alieva et al. 1972: 381).

In Indonesian, we find that collective numerals (marked with the prefix *ke*) normally precede nouns if they belong to the same NP:

\[
\text{Indonesian} \\
(7) \quad \text{ke-empat mahasiswa ini} \\
\quad \text{COLL-four student this} \\
\quad \text{‘all four of these students’}
\]

4. Kinds of interpretations of quantity expressions

As was argued in Lander 2001a; 2001b, a QE must be compositionally obligatory if it quantifies over a specific set, as in *three of the talks*.\(^8\) The apparent reason for this is that the embedded nominal in that case has reference distinct from the reference of the whole NP: e.g., *the talks in three of the talks* does not refer to the same individual as the matrix NP. Hence the QE in

\(^6\) QEs can sometimes appear as floating quantifiers, or in appositive structures together with referential NPs. This is occasionally described as the occurrence of a QE in a postnominal position, and in fact, if a QE is only used in such patterns, this may look as if it can be only used postnominally. I disregard such constructions, however, because QEs in structures of this kind do not constitute a part of a NP.

\(^7\) It seems that normally such quantifiers cannot appear in the postnominal position at all. However, van den Berg (1989) reports that in Muna the quantifier *eano* ‘every’ should follow the head noun when *eano* and a relative clause are part of a prepositional phrase. I have no explanation for this.

\(^8\) These works claimed that QEs in such expressions must head the phrase, but the notion of ‘headness’ as it was understood there is more or less equal to ‘compositional obligatoriness’ here, at least for the partitive contexts.
these constructions determines the interpretation of the whole NP and is compositionally obligatory. Naturally, we expect that in such constructions a QE must only appear prenominally.

In western Indonesian languages, sometimes we find a neat picture where the word order only indicates the partitive or non-partitive interpretation of the QE. Thus, judging from data presented in Nishiyama 1998, in Bugis the preposing of numerals requires the partitive interpretation, while the postponing results in a cardinal interpretation:

**Bugis (Nishiyama 1998)**

(8) a. buku lima-e iaro
    book five-the that
    ‘those five books’

   b. lima buku-e iaro
    five book-the that
    ‘five of those books’

Another language for which the same phenomenon is observed is Acehnese. According to Durie (1985: 136), for lë ‘many’ “its relative degree is accentuated by placing it before its head”, i.e. the pronominal position of the QE provides a partitive interpretation; cf.:

**Acehnese (Durie 1985: 136)**

(9) a. ureueng lë
    person many
    ‘many people, several people’

   b. lë ureueng
    many person
    ‘many of the people, most people’

---

9 Nishiyama does not provide these examples with translations, but he explicitly states that (8a) has a cardinal reading, while (8b) has a partitive reading. He also notes that other arrangements are possible as well within Bugis NPs.
5. Focusing on quantity expressions

Some grammars claim that the prenominal position of a QE makes the information about the quantity more salient. For example, van den Berg (1989: 110) states that in Muna that “[t]here is a subtle difference between a pre-nominal and a post-nominal measure phrase. In the case of a pre-nominal measure phrase the numeral is stressed, whereas in a post-nominal construction it is the nominal that is stressed.” Cf.:

Muna (van den Berg 1989: 110)

(10) a. tolu-ghulu dahu
    three-CLR dog
    “THREE dogs”

b. o dahu tolu-ghulu
    ART dog three-CLR
    “three DOGS”

While fronting is typical for salient information, such statements can also get an explanation via compositional obligatoriness. It seems that when a QE is stressed, the main function of the NP is neither the introduction of a new participant, nor a reference to an already established individual. Presumably, such phrases can be described as ‘quantity-denoting’ rather than ‘individual-denoting’, the distinction being introduced by Li, who noted for some Chinese NPs that their interpretation “in fact concerns quantity, rather than (the existence of) some individuals” (Li 1998: 695). Quantity-denoting NPs clearly should yield the determiner interpretation of QEs (since quantity is relevant only relatively to the matrix predicate) and hence result in compositional obligatoriness.

6. Quantity expressions in definite contexts

Lea Brown (2001) notes that in Nias “[u]sually when a noun is modified by a relative clause containing a numeral or numeral + classifier [i.e. the QE is postnominal and marked as a relative clause – YL], the NP is understood to be specific and definite […]. When the numeral and classifier precede the noun, the noun is typically indefinite”.

This gets an easy explanation: if the reference of the NP is already established, as is the case when the NP is definite, the QE cannot affect it and has to serve as an ordinary modifier.
Note, however, that in many languages the prenominal position of a QE is possible even when the NP is definite; cf., e.g., (5a) above. This does not contradict an interpretation where a QE has wide scope over the nominal, yet the QE in that case is not compositionally obligatory. However, it seems that contextual definiteness or definiteness marked with demonstratives (as is common, for example, in Indonesian; cf. McCune, Simin 1983) need not affect the structure: demonstratives are not treated as determiners by these languages and contextual definiteness is more a pragmatic than structural factor. Then, QEs still can remain able to function as determiners, because such use can be motivated semantically but not pragmatically (interestingly, this would imply a sharp distinction between semantics and pragmatics, which is, of course, a controversial issue). Nonetheless, where a NP includes a compositionally obligatory determiner, the prenominal QE is at least sometimes prohibited. Thus in Muna the article cannot combine with prenominal QEs (van den Berg 1989: 104–105); cp. the infelicity of (11) with (10b):

\[
\begin{align*}
\text{Muna (van den Berg 1989: 104)} \\
(11) & \text{ *o tolu-ghulu dahu} \\
& \text{ART three-CLR dog}
\end{align*}
\]

The situation in Nias is likely to be the result of fixing a tendency and need not represent semantics directly. Yet, it does serve as a piece of evidence for a special semantic function of the prenominal position.

7. The ‘former’ construction

At least in some languages of West Indonesia a construction is found, where the word ‘trace’ preceding a nominal provides the meaning ‘former’. Cf. the following examples (see also (2)):

\[
\begin{align*}
\text{Javanese (Atmodjo 1998)} \\
(12) & \text{ tilas pahat} \\
& \text{ trace pahat} \\
& \text{‘former pahat’}
\end{align*}
\]

\[10\] I thank Alexander Ogloblin for useful consultations on ‘former’ constructions.
Importantly, the meaning ‘former’ is non-subsective (Kamp, Partee 1995), i.e. its combination with a noun does not refer to a subset of the set denoted by this noun but almost reverses the meaning (e.g., ‘former pahat’ cannot refer to the ‘pahat that is former’). The combination MODIFIER + NOUN in this case obligatorily requires both elements, for the absence of either of them would not give a correct interpretation. The word for ‘former’ is, therefore, compositionally obligatory and its appearance in the prenominal position is well-motivated.

8. Possessives

While the normal word order in possessive constructions of languages of West Indonesia is POSSESSUM — POSSESSOR (see Asmah Hj. Omar 1974; Alieva 1998; Lander 2003), several languages display constructions where the possessum follows the possessor. For example, in Madurese there is a special possessive pronoun sang ‘my’, which precedes the possessor; cf.:

Madurese (Ogloblin 1986: 130)
(14) lengngen-na sang kalamhbi
sleeve-PR.3 my jacket
‘sleeve of my jacket’

Further, some western Indonesian languages show a construction where the preposed possessor is separated from the possessum nominal by a marker originally having meaning ‘have; possession’; cf. (3) above. While in some varieties of Malay this construction has a wide distribution (Gil 2001), it seems that prototypically it has been used with the most topical, ideally pronominal possessors.

The incline of the preposed possessors to be most topical has a functional explanation. Possessive constructions are prototypically used for establishing the reference via a relation to some individual (Keenan 1974; Langacker 1994; Haspelmath 1998; Lander 2008), and the most topical posses-
sors are prototypical “anchors” for establishing such a relation. Thus, we find that possessor phrases in such cases establish the reference of the nominal and hence are compositionally obligatory.

9. Compositional obligatoriness and headedness

To sum up, we have seen that the proposal that prenominal modifiers are compositionally obligatory can explain a number of the facts observed in western Indonesian languages. In this section, I will argue that this agrees with the claim that NPs in these languages are right-branching.

First, recall what ‘right-branching’ means: the head is followed by its dependants rather than is preceded by them. Now, ‘head’ is certainly a controversial notion (see Zwicky 1985; Corbett et al. (eds) 1993 for discussion). It is intuitively clear that behind the headedness lie the concepts of accessibility and embeddedness. Nobody would negate the existence of certain asymmetries in accessibility and/or embeddedness, but the problem is that sometimes different criteria of headedness point to different elements of the construction. I propose that the problem of head properties distribution is related to the fact that headedness can originate from two sources, namely the informational relevance and compositional obligatoriness.\(^{11}\)

The informational relevance is a vague notion, and one can doubt that it can be formalized in any adequate way. Nonetheless there are good pieces of evidence that the more relevant information is the more accessible and less embedded it should be (Lander 2004). Compositional obligatoriness, while connecting the expression to its context and being dependent on its own scope, is related to the order of constructing the expression, it pretends to reflect accessibility and embeddedness as well and hence can compete with the relevance.

It could be suggested, then, that the position of prenominal modifiers in western Indonesian languages reflects their head properties: being compositionally obligatory they tend to precede their semantic dependants. In fact, this was proposed for QEs in several works; see, e.g., Brown 2001 for Nias. Some languages evidently present support for this. For example, in Gayo the

\(^{11}\) In addition, grammaticalization may lead to the lack of semantic motivation, in which case headedness can be only associated with the categorical determination.
quantified nominal can be overtly marked as dependant of a QE by a possessive preposition:

Gayo (Eades 2005: 215)
(15) sara tangké [ni rom]
    one bunch POSS rice.plant
‘a bunch of rice plants’

Still, even in Gayo this construction cannot be used with measure nouns denoting standardised measurements of weights. Thus it is not easy to determine whether compositionally obligatory elements have any nominal characteristics, which are certainly expected for the head of an NP. Moreover, it is not always possible to treat “prenominal modifiers” as heads of NPs in any sense. Thus possessor phrases are not likely to be treated as heads of their matrix NPs, and for some languages it can be explicitly shown that at least some prenominal quantifiers do not have nominal nature (cf. Brown 2001 for Nias). Hence it is unlikely that the word order in western Indonesian NPs only reflects headedness. Rather, it can be proposed that right-branching properties of NPs in the relevant languages reflect semantic composition and not exclusively head–dependant relations. At the same time, it may be that semantic branching may compete with syntactic branching originating from structures that are highly grammaticalized and are not semantically transparent.12

10. Open ends
To sum up, the prenominal position in western Indonesian NPs is motivated by compositional obligatoriness, which is related to the order of the composition of the phrase – in fully accordance with the right-branching properties of western Indonesian NPs. Nonetheless, a few questions remain open.

– Are all compositionally obligatory elements placed in the prenominal position? At first glance, the answer is positive, but sometimes the postnomi-

12 The function and the position of prenominal modifiers could be described as specifiers in the sense of early generative grammar, but the ‘former’ construction discussed in Section 7 does not fit in this model.
nal appearances of QEs and other modifiers require further considerations and explanations. The list of such explanations is still in order.

– Which elements of NPs can be treated as compositionally obligatory? In this paper I only focused on some constructions related to compositional obligatoriness, but presumably such constructions are more. For example, Alieva et al. (1972: 380) mention for Indonesian some modifiers that were not discussed above like those meaning ‘various’, ‘other’. Apparently, any data on what items can appear in the prenominal position can get theoretical relevance in light of the proposal of this paper.

– How far does the phenomenon discussed here extend geographically? Even though I stated in fn. 1 that western Indonesian languages share a number of common typological properties, there are certainly fuzzy zones where the picture described above dwindles. For example, in Tukang Besi, which in general can be thought to belong to the same area (at least in what concerns its NPs) but displays a number of specific features (Donohue 1999), numerals always follow the noun (Donohue 2005). On the other hand, we find that in Tagalog and some other Philippine languages QEs almost obligatory appear in the initial part of NPs (following case markers/determiners), even though most other NP-internal constructions easily allow rearrangement of the elements (see Shkarban 1989: 105; Donohue 2007: 369); cf. a construction with a numeral in (16) and a construction with a adjective-like word in (17):

Tagalog (Donohue 2007: 369, 360)

(16)  a. ang tatlo-ng baro
     NOM three-LNK dress
     ‘the three dresses’

     b. ‘ang baro-ng tatlo
        NOM dress-LNK three

(17)  a. ang bago-ng baro
     NOM new-LNK dress
     ‘the new dress’

     b. ‘ang baro-ng bago
        NOM dress-LNK new

It is, then, possible that Tagalog and similar Philippine languages follow principles akin to those governing the phenomenon discussed here.
References


Since the 12th Malaysian general elections of 8 March 2008 that denied the ruling government its two-thirds majority in parliament, the internet has been widely acknowledged to be an important source of daily information for the public. In fact, it has been reported that the IT-savvy members of the voting public constituted the bulk of voters showing a swing in traditional voting patterns.