SPECIFICITY AND DEFINITENESS IN DZAMBA[1]

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1. Introduction

It has been assumed in the past that the initial vowel and/or CV-
type noun pre-prefixes (hereafter NPP) of the Bantu concordial system
corresponds to the definite article (Def. Art.) in Indo-European lang-
uages. As a result of this, certain significant generalizations con-
cerning the notions definiteness, specificity, and presuppositions in
Bantu grammar have been missed.

The purpose of this paper is to explore the interrelationship of
syntax and semantics with regard to the notion of specificity in
Dzamba, and to examine the extent to which it correlates with the con-
trast involving the presence vs. the absence of the NPP. Specifically,
I would like to argue that the specific vs. nonspecific contrast for
Dzamba noun phrases depends on presuppositions associated with various
verbs, other lexical items and construction types. Dzamba is a Bantu
language spoken in the northwestern region of Congo-Kinshasa.[2]

An NP is said to be [+SPEC] if it has referentiality; that is, if
the existence of the referent is presupposed. Further, an NP is said
to be definite ([+DEF]) only if it is preceded by a NPP which may be
a vowel or CV-type prefix. This distinction gives us a four-way con-
trast, viz. [+SPEC]/[-SPEC] and [+DEF]/[-DEF] as in:

(1a)   [-DEF, +SPEC]

mo-konzi mɔɔ mo-lamu anyɔlɔki ondaku

chief one handsome entered in the house

'A handsome chief entered the house.'

(1b)   [+DEF, +SPEC]

<u>omo</u>-konzi <u>omo</u>-lamu anyɔlɔkl ondaku

'The $\left\{\begin{array}{l}\text{handsome}\\\text{good}\end{array}\right\}$ chief entered the house.'

2. Environment of full [+DEF]/[-DEF] contrast

The diagnostic environments for the [+DEF]/[-DEF] contrast in Dzamba are the subject and object NP's. The various manifestations of this contrast upon which the analysis will be centered are summarized in <u>Table 1</u> below, where the second column indicates the occurrence of NPP, and the third indicates its non-occurrence. (C)V and CVCV* represent the NPP, the noun stem and its prefix respectively as follows:

(2a)   <u>bà</u> - <u>bá</u> - <u>tò</u>   (i.e. bàbátò)[3]   'the people'
     NPP noun stem
          prefix
     CV   C CVCV

(2b)   bá-tò   'people'
     CVCV

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[3]Although all of the examples given in this paper contain nouns that are preceded by an initial vowel NPP, they should not be construed as the only forms of NPP that occur in Dzamba. CV-type NPP do exist in the language, but I have avoided introducing them because I would have been compelled to introduce phonological discussion into a syntax paper. The entire repertoire of Dzamba NPP's may be summarized as follows:

(a) o/ba- occur before nouns of class 1/2 singular and plural respec-
    tively;
(b) I- occurs before classes 3/4, 5/6, and 14 singular, and before
    plurals of classes 3/4, 7/8 and 9/10;
(c) e- occurs before singular nouns of classes 7/8 and 9/6;
(d) ma- occurs before plural nouns of classes 5/6 and 9/6.

It should be pointed out in this connection that the NPP's ba- and ma- can occur before non-monosyllabics only after the application of rule (e), except if the noun begins with a vowel.

(e) CV-CVCV* ===> CVCV* / $\left\{\begin{array}{l}\text{ba}\\\text{ma}\end{array}\right\}$⌋ NPP ‾‾‾‾‾

For example, bákonzi 'chiefs', bà-bákonzi ===> bàkonzi 'the chiefs'. Vowel-stem non-monosyllabics behave like monosyllabics.

Table 1

Contrast involving the occurrence of the
noun pre-prefix in Dzamba

	Type of Np's	(C)V-CVCV*	CVCV*
I.	Subj. of affirmative S	+	+
	Subj. of Neg: VP scope	+	+
	Subj. of Neg: S scope	–	+
	Subj. of Passive	+	+
II.	Obj. of affirmative S	+	+
	Obj. of Neg.	+	+
	Obj. of Passive	+	+
III.	Subj. NP Dem	+	–
	Subj. of Mtx S in Rel.	+	–
	Topicalized NP	+	–
	Subj. NP in Topic. const	+	–
IV.	Obj. NP + Dem	+	–
	Obj. NP of Mtx S in Rel.	+	–

Further, in groups I and II the subject or object NP is optionally [+DEF], but in III and IV it is obligatorily [+DEF]. When the NPP does not occur the noun phrase is interpreted as [-DEF]. Compare, for instance, sentences (3a, b) and (3c, d) below.

a. **Subject NP of affirmative S**

(3a)   [-DEF, -SPEC]

mo-ibi (mɔɔ) akoki nanyɔlɔ ondaku

a thief (one) can and enter in the house

'A thief can enter the house.'

(3b)   [-DEF, +SPEC]

mo-ibi (mɔɔ) anyɔlɔki ondaku

a thief (one) entered in the house

'A thief entered the house.'

(3c)   [+DEF, +SPEC]

omo-ibi (*mɔɔ) akoki nanyɔlɔ ondaku

the thief (*one) can and enter in the house

'The thief can enter the house.'

(3d)   [+DEF, +SPEC]

omo-ibi (*mɔɔ) anyɔlɔki ondaku

'The thief (*one) entered the house.'

Notice that the difference between (3a) and (3b) is that the verb in the latter is in the past tense, asserting that the event described has already taken place. Thus the subject noun phrase must have referentiality, i.e., it is specific. In contrast, the verb 'can' in (3a) makes no assertions of this kind, so that the existence of 'thief' is not presupposed. The AUX akoki 'can' merely implies that if there were a thief around the neighborhood, "he can enter the house." This contrast does not hold between (3c) and (3d) where both subject NP's are [+DEF] and [+SPEC]. The semantic content of the AUX akoki seems to be neutralized here with respect to the specificity of the subject noun phrase, because of the presence of the NPP. Observe further that the indefinite article and numeral mɔɔ can only co-occur with the [-DEF] noun mo-ibi in (3a, b), but not with the [+DEF] noun

in (3c, d). With regard to the [+SPEC]/[-SPEC] contrast, sentences (3b-d) tag the thief as a <u>specific thief by virtue of deed and known fact</u>. In (3a) the thief is left unspecified and no claim is made about his existence.

b. <u>Subject of negative constructions</u>

Similarly, the subject of a negative construction may be either [+DEF] or [-DEF] depending on the scope of the negation. If the scope is phrasal (VP), the subject NP can be optionally [+DEF], but if it is sentential there is no contrast, the NP is obligatorily [-DEF]. Consider sentences (4a, b) and (4c, d):

(4a)   [-DEF, -SPEC]

    <u>mo</u>-ibi (moɔ) <u>tanyɔlɔki</u> ondaku <u>emba</u>[4]

    a thief (one) <u>not</u> did enter in the house <u>not</u>

    'A thief (*one) did not enter the house.'

(4b)   [+DEF, +SPEC]

    <u>omo</u>-ibi (*moɔ) <u>tanyɔlɔki</u> ondaku <u>emba</u>

    'The thief (*one) did not enter the house.'

(4c)   [-DEF, -SPEC]

    <u>T</u>oonyɔlɔki nà <u>mo</u>-ibi (moɔ) ondaku <u>emba</u>

    <u>not</u> enter did even a thief (one) in the house <u>not</u>

    'No (single) thief entered the house.'

(4d)   [+DEF, +SPEC]

    *<u>T</u>oonyɔlɔki nà <u>omo</u>-ibi (moɔ) ondaku <u>emba</u>

    Meaningless

The scope of negation in (4a, b) is phrasal, i.e. only the VP is being negated here. What is denied here is not the existence of the thief, but rather the act of his entering the house. In (4c), on the other hand, the scope of negation is sentential as a result of a focus construction which inverts the subject and the verb. The speaker here

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[4]The formatives ta- and emba in Dzamba constitute a single negative entity which is similar to the French ne....pas, except that in Dzamba it must always occur at the end of the sentence irrespective of its length.

is insisting that 'No single thief', to his knowledge, 'entered the house'. In other words, (4c) can be a perfect reply to

(5)   [-DEF, +SPEC]

mo-ibi (mɔɔ) anyɔlɔki ondaku waabo?

'Did one thief enter this house?'

or to

(6)   [-DEF, -SPEC]

mo-ibi mɔɔ tanyɔlɔki ondaku waabo emba?

a thief one not enter did in the house here not

'Didn't one thief enter this house?'

Unlike in (4a, b), the 'thief' in (4c) has no referential identity, i.e. (4c) implies that 'there is no thief such that he entered the house'.

c.   Subject of passivized verbs

    The deep subject of a passive construction may be optionally [+Def] as in

(7a)   [-DEF, +SPEC]

mu-ndimo mwimbamaki na mw-ana mɔɔ

an orange it was plucked by a child one

'An orange was plucked by a child.'

(7b)   [+DEF, +SPEC]

mu-ndimo mwimbamaki n'omw-ana (*mɔɔ)

'An orange was plucked by the child.'

The same situation obtains for the surface subject of the passive as illustrated by the following sentences:

(8a)   [-DEF, +SPEC]

mu-ndimo mwimbamaki n'omw-ana

'An orange was plucked by the child.'

(8b)   [+DEF, +SPEC]

imu-ndimo mwimbamaki n'omw-ana

'The orange was plucked by the child.'

Observe here that whether or not the NP is [±DEF], the tense (past) of the

verb implies that action has taken place, and the NP must therefore be
[+SPEC]. Further evidence for this type of contrast may be found in
the object NP's of other constructions.

d. Object NP of affirmative S

As Givón [1970] correctly points out, verbs such as 'see', 'hear',
'eat', 'drink', but not their negatives, generally imply referentiality
of their objects.[5] Consider, for instance, sentences (9) and (10) below:

(9a)   [-DEF, +SPEC]

        oSalomi aɛnɛki mw-ana wa mbongo

        Sally ([+DEF]) saw a child of an elephant

        'Sally saw a baby-elephant.'

(9b)   [+DEF, +SPEC]

        oSalomi aɛnɛki omw-ana wa mbongo

        'Sally saw the baby-elephant.'

(10a)   [-DEF, -SPEC]

        oSalomi tɛɛnɛki mw-ana wa mbongo emba

        'Sally did not see a (any) baby-elephant.'

(10b)   [+DEF, +SPEC]

        oSalomi tɛɛnɛki omw-ana wa mbongo emba

        'Sally did not see the baby-elephant.'

First, note that the NP mw-ana wa mbongo in sentences (9a) and (9b) is
[+SPEC] irrespective of the occurrence of the NPP. This fact is due to
the nature of the predicate -ɛnɛ 'see', which, as stated above, implies
the existence of the object NP. Second, the sentences in (10) do not
have the same truth-value as their affirmative counterparts in (9). For
instance, (10a) does not imply the existence of the baby-elephant such
that it was seen by Sally, but (9a) does. And while (10b) does not deny
the existence of the baby-elephant, it does not preclude the possibility
of Sally seeing 'something else' in place of the baby-elephant. In other
words, sentence (11a) is an acceptable extension of (10b), but cannot be

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[5]Givón [1970:42ff.] and personal communication also.

an extension of (9b) because the second conjunct contradicts the first:

(11a) [+DEF, +SPEC]

oSalomI tɛɛnɛkI omw-ana wa mbongo emba, kasI owa ngbeya

Sally not did see the child of an elephant, but the one of a pig

'Sally did not see the baby-elephant, but that of a pig.'

(11b) [+DEF, +SPEC]

*oSalomI aɛnɛkI omw-ana wa mbongo, kasI owa ngbeya

*'Sally saw a baby elephant, but that of a pig.'

Further, the [+DEF]/[-DEF] contrast is maintained up to this point.
Note here that (10b) is [+SPEC] not because of the presuppositions of
the verb, but rather because of the presence of the NPP on omw-ana
'the child'.

    A similar situation obtains in constructions involving conditionals
and inherently negative predicates such as Iaangana 'to deny', Iobaa
na ntembe 'to doubt' (literally 'to be with doubt'), and counter-factual
conditionals. Consider first the conditional construction.

(12a) [-DEF, -SPEC]

oSalomI aɛnɛ̀kɛ̀ mw-ana wa mbongo abIkela boIo?

Sally if she sees a baby elephant she'll do what

'What will Sally do if she sees a baby elephant?'

(12b) [+DEF, +SPEC]

oSalomI aɛnɛ̀kɛ̀ omw-ana wa mbongo abIkela boIo?

'What will Sally do if she sees the baby elephant?'

(12a) does not presuppose the existence of the baby elephant, but (12b)
does in that the NP omw-ana is [+DEF]. Note that the verb alone in
no way presupposes the existnece of the baby-elephant. The same con-
trast holds in constructions involving inherently negative predicates.
Consider

(13a) [-DEF, -SPEC]

oPeteIo aanganI kIbo akomakI mu-nkanda

'Peter denied that he wrote a (any) letter.'

(13b) [+DEF, +SPEC]

    oPetelo aanganı kıbo akomakı ımu-nkanda

    'Peter denied that he wrote the letter.'

(13a) does not imply that the 'letter' for which Peter is being accused of writing exists, while (13b) does. As in the preceding sentence (12b), the surface marking of the [±SPEC] contrast (as well as the [±DEF] contrast, in this case) involves the presence of the NPP.

e. Object NP of a passive

    The deep object of the passive is similar to the subject NP of this construction in that it can accommodate a [+DEF]/[-DEF] contrast as exemplified in (8) above and (14) below.

(14a) [-DEF, +SPEC]

    mu-nkanda mukomamakı n'oPetelo lɔɔme

    'A letter was written by Peter today.'

(14b) [+DEF, +SPEC]

    ımu-nkanda mukomamakı n'oPetelo lɔɔme

    'The letter was written by Peter today.'

What is important to note here is that (1): So far the notion of specificity in Dzamba does not always depend on the presence of the NPP, so that a noun phrase may under many conditions be [+SPEC] whether it is [+DEF] or not; and (2): The presuppositions of existence associated with various verbs and construction types are crucial in understanding the interaction of definiteness and specificity in Dzamba. If this hypothesis is correct, then we should get further support for it in environments where specificity or definitivization are obligatory.

3. Environments of no [+DEF]/[-DEF] contrast

    As indicated in Table 1, environments which do not accommodate a [+DEF]/[-DEF] contrast in Dzamba include demonstratives, relative and topicalized constructions. Each of these will be examined briefly in this section.

a. Subject NP + demonstrative pronoun

    A demonstrative in Dzamba may follow or precede the subject NP it

modifies, though it may only follow the object NP. When relativization is present, a demonstrative may seem to precede the subject NP. Compare in this regard sentences (15a) and (15c):

(15a) [+DEF, +SPEC]

    Izi-bata zi-ibo zi-kòmelaki ilɔsɔ

    the duck this ate the rice

    'This duck ate the rice.'

(15b) [-DEF, +SPEC]

    *zi-bata zi-ibo zi-kòmelaki ilɔsɔ

    *a duck this ate the rice

    *"This (a) duck ate the rice.'

(15c) [+DEF, +SPEC] [+REL]

    zi-ibo izi-bata izi-kòmelaki ilɔsɔ

    this the duck REL ate the rice

    'This (is) the duck that ate the rice.'

(15d) [+DEF, +SPEC] [-REL]

    *zi-ibo izi-bata zi-komelake ilɔsɔ

First, observe that all the NP's in the above sentences are [+SPEC]. Second, sentence (15b) is ungrammatical because it violates, in both English and Dzamba, the rule which stipulates that any noun modified by a demonstrative must be [+SPEC] and [+DEF]. This rule is seemingly violated by (15c). However, with the basic word order in Dzamba (in unembedded constructions), conforming to:

(16) NP_1 + Dem - V - NP_2

one may quickly note that the demonstrative in (15c) does not modify the head noun of the NP, but is rather the anaphoric pronoun of the subject NP. Indeed, the missing copula zindo 'is' may be supplied, yielding (17) below, which is a paraphrase of (15c):

(17)   zi-ibo zindo izi-bata izi-kòmelaki ilɔsɔ

    'This is the duck that ate the rice.'

The ungrammaticality of (15d) can now be ascribed to the violation of the

word order constraint in (16) above.

b. Subject of matrix S in relative construction

Similarly, the subject NP modified by a relative clause (REL) is obligatorily [+DEF]. This explains why (18b) is ungrammatical. Further, notice that the relative pronoun must be marked on the verb that immediately follows the NP that is being modified. I shall return to this point below.

(18a) [+DEF, +SPEC]

omo-to ónyɔlɔkí ondaku auṭakí Bomai

'The man who entered the house came from Bomai.'

(18b) [-DEF, +SPEC]

*mo-to ónyɔlɔkí ondaku auṭakí Bomai

?'A man who entered the house came from Bomai.'

It has been generally claimed that a speaker presupposes the truth-value of an embedded relative clause, and therefore the referentiality of the matrix S subject.[6] But note that in English the subject NP of a matrix S is not always [+DEF] as exemplified in

(19)   [-DEF, +SPEC]

Someone who identified himself as a friend of yours took my bike.

While this sentence is perfectly grammatical in English, it is unacceptable in Dzamba where the syntactic rules involved in relativization require the head NP to become [+DEF].

Note, further, that modifying adjectives, as in (20a) below, much like modifying relative clauses, require an NPP:

(20a) [+DEF, +SPEC]

omo-to omw-anda ónyɔlɔkí ondaku auṭakí Bomai

the man tall REL entered in the house came from Bomai

'The tall man who entered the house came from Bomai.'

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[6]Kiparsky and Kiparsky [1968:4].

(20b) [+DEF, +SPEC]

omw-anda ónyɔlɔki ondaku autaki Bomai

'The tall (one) who entered the house came from Bomai.'

When the head noun is anaphorically deleted, as in (20b), the adjective
may function as the anaphoric pronoun, preserving the definiteness of
the deleted head noun.

By contrast, given a non-relativized construction such as (21a),
with an indefinite head noun, we cannot get (21b), because the adjec-
tive mw-anda 'tall' is not understood as referring to any deleted
noun for which the noun class agreement is marked on the verb
as class (1/2) singular.

(21a) [-DEF, +SPEC]

mo-to mw-anda anyɔlɔki ondaku

'A tall man entered the house.'

(21b) [-DEF, +SPEC]

*mw-anda anyɔlɔki ondaku

We may thus conclude that the use of an adjective as an anaphoric pronoun
in Dzamba is possible only if the head noun was definite, so that the
NPP is obligatory in this case.

c. Topicalized NP's

Further instances of the obligatory occurrence of the NPP may be
found in topicalized constructions. Consider in this regard the sen-
tences (23a, b) whose underlying word order is:

(22) NP_1 - V - NP_2 - NP_3

In them, NP_1 functions as the subject, NP_2 as the dative, and NP_3 as the
patient (or direct object). In other words, NP_2 is the goal and NP_3 is
the theme.

(23a) [-DEF, +SPEC]

Petelo akómelaki $\left\{ \begin{array}{l} \underline{\text{mo-konzi}} \text{ mɔɔ} \\ \underline{\text{omo-konzi}} \end{array} \right\}$ mu-nkanda

'Peter wrote a letter to $\left\{ \begin{array}{l} \text{a} \\ \text{the} \end{array} \right\}$ chief.'

(23b) [-DEF, +SPEC]

  *Petelo akómelakl mu-nkanda omo-konzl

(23c) [+DEF, +SPEC]

  Imu-nkanda, oPetelo a-mu-kómelakl $\begin{Bmatrix} \text{omo-konzl} \\ \text{mo-konzl moɔ} \end{Bmatrix}$

  'As for the letter, Peter wrote it to/for $\begin{Bmatrix} \text{the} \\ \text{a} \end{Bmatrix}$ chief.'

(23d) [-DEF, -SPEC]

  *mu-nkanda, oPetelo a-mu-kómelakl $\begin{Bmatrix} \text{omo-konzl} \\ \text{mo-konzl moɔ} \end{Bmatrix}$

  *As to a letter, Peter wrote it to $\begin{Bmatrix} \text{the} \\ \text{a} \end{Bmatrix}$ chief.'

The ungrammaticality of (23b) stems from the fact that it violates the
basic word order given in (22) where the goal must precede the theme.
This order is crucially fixed, and therefore cannot be reversed. The
contrast between (23c) and (23d) is simply one of [+DEF] vs. [-DEF].
(23c) shows that the deep subject of the topicalized construction must
be [+DEF] (though the untopicalized goal may also be [-DEF]). It is
also possible to topicalize the goal (i.e. the NP omo-konzl 'chief')
and in that case too the topicalized NP must be [+DEF]. The preposed
NP is brought into focus (it must have been previously mentioned) and
therefore it is obligatorily marked [+DEF]. Given this fact, it is
not surprising that the topicalized NP's are also [+SEPC].

d. Object NP + demonstrative pronoun

    As in the case of the subject NP, any object NP modified by a de-
monstrative is obligatorily [+DEF]. Compare for instance the follow-
ing sentences:

(24a) [+DEF, +SPEC]

  ombɛkɛlɛ Imu-nkanda munabona

  'Give me that book over there.'

(24b) [-DEF, +SPEC]

  *ombɛkɛlɛ mu-nkanda munabona

e. Object NP of a matrix S in relative construction

    Similarly, the object noun modified by a relative clause in Dzamba

can only be [+DEF] and [+SPEC]. In addition, relativization in Dzamba
is unique in a number of ways, due to an NP permutation rule, that I
will call <u>subject postposing</u>, which occurs in the embedded relative
clause. I shall restrict myself in this section only to those parts
of the analysis that are relevant for this paper.[7]

If we assume that the speaker presupposes the truth-value of the
embedded relative clause, it becomes clear why the object NP modified
by a relative clause must be marked [+SPEC]. Compare in this regard
the two sentences in (25), whose deep structure is roughly given in
(26). The ungrammaticality of (25b) obviously arises from the absence
of the NPP on the noun mo-kondo 'alligator'.

(25a)   [+DEF, +SPEC]

    oPetelo anyamozi <u>imo</u>-kondo <u>imu-bundaki</u> Zaki

    Peter just sold <u>the</u> alligator <u>that</u> caught Jack

    'Peter just sold the alligator that Jack caught'

(25b)   [-DEF, +SPEC]

    *oPetelo anyamozi <u>mo</u>-kondo <u>imu-bundaki</u> aki

    'Peter just sold <u>an</u> alligator <u>that</u> Jack caught.'

In English it is possible to have a <u>specific</u> noun take the <u>indefinite</u>
article and still be modified by a relative clause. This explains the
<u>grammaticality</u> of the English gloss of (25b). In Dzamba, however, in
this construction it is not only <u>definitiveness</u> but also <u>specificity</u>
(referentiality) that is here marked by the NPP. Hence the ungrammati-
cality of (25b) in Dzamba.

Ignoring the unnecessary details, the DS for (25) may be represented

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[7]In a forthcoming [1972] paper that I have written on relativiza-
tion in Dzamba for the Third Annual African Linguistics Conference, to
be held at Indiana University, I have argued not only for the necessity
of the <u>object NP Preposing</u> and <u>subject NP Postposing</u> movement rules,
but also that these movement rules are structure-preserving in that
they permute constituents that have already been provided by the base
rules. Further, I have shown that the second permuted NP or PP moves
into the space vacated by the first element. The structure-preserving
arguments have been omitted from this paper because they are largely
irrelevant to the central topic.

as follows:

(26)

'Peter sold an alligator Jack caught an alligator'
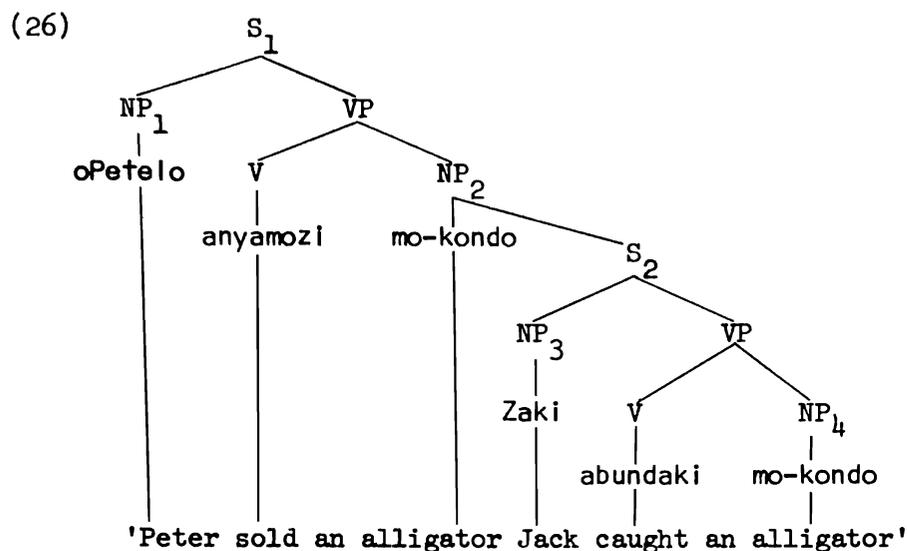
Since S_1 and S_2 share an identical NP ($NP_2 = NP_4$), the construction meets the conditions for relativization, which in Dzamba involves the **attraction** of the equi-NP of the embedded clause from its original position to a position directly following the head noun (NP_2). Relativization in Dzamba also involves **pronominalization**, in this case, the insertion of the relative pronoun imu- 'that', 'which'.[8] Following these two steps we obtain the intermediate structure:

(27)

'Peter sold an alligator that Jack caught'

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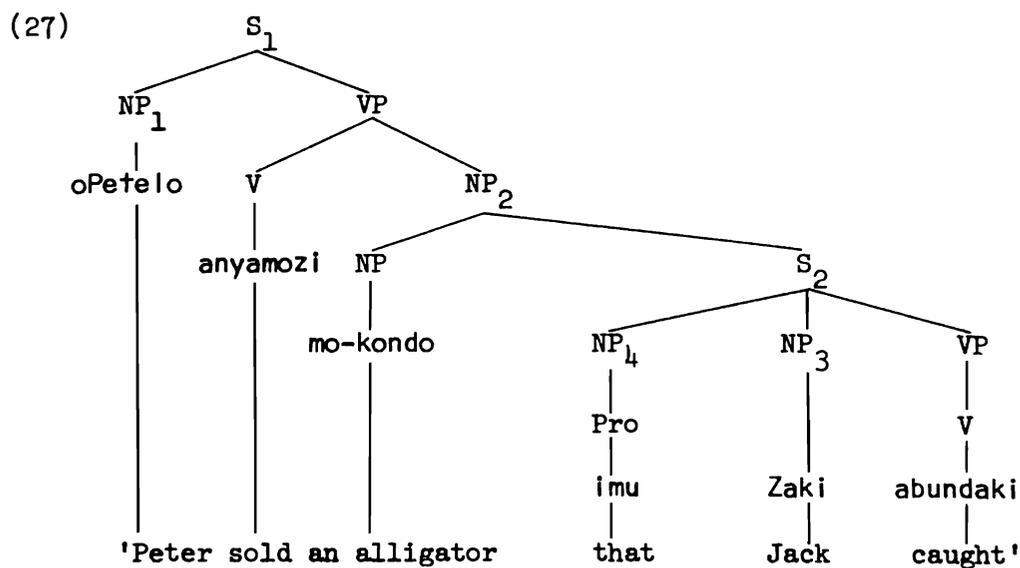
[8]imu- and other (C)V-type NPP's have as their basic meaning, 'the

A specific rule of Dzamba now disallows the occurrence of two NP's be-
fore the verb (i.e., in subject position), unless they are separated by
a conjunction or an intonation break (cf. (23c)). <u>Subject postposing</u>
within S_2 must now follow, yielding (28) below, where NP_3 is adjoined
as a right-hand sister of the verb. It is clear that this subject
postposing rule must follow the rule of <u>agreement</u> in the embedded S_2,
since the verb in S_2 still agrees with its deep subject, Zaki 'Jack'
(cl. 1/2, sg.), and not with the preposed (and pronominalized)
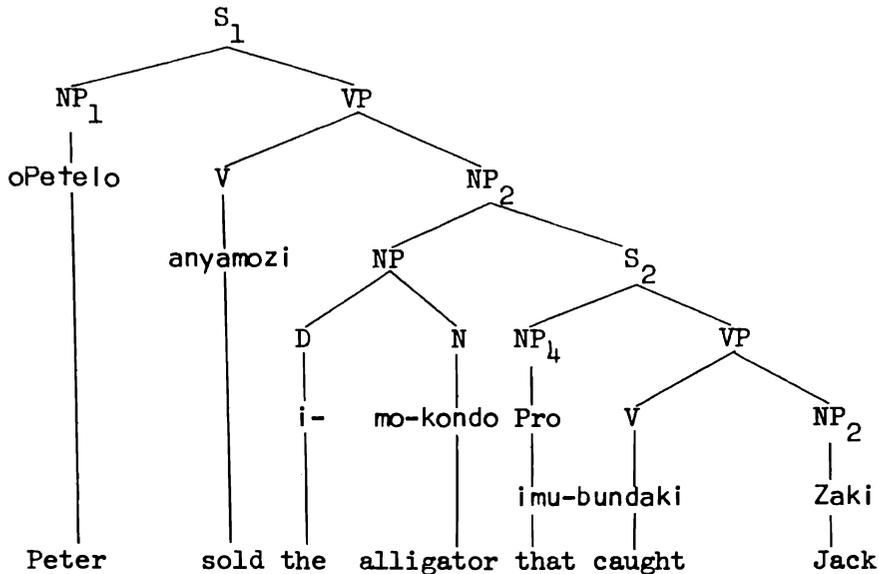'alligator' (cl. 3/4, sg.).

(28)

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                            S₁
              ┌─────────────┴──────────────┐
            NP₁                            VP
             │                 ┌────────────┴────────────┐
          oPetelo              V                         NP₂
                               │              ┌───────────┴──────────┐
                            anyamozi         NP                      S₂
                                              │            ┌──────────┴─────────┐
                                           mo-kondo       NP₄                   VP
                                                           │            ┌────────┴────────┐
                                                          Pro           V               NP₂
                                                           │            │                │
                                                          imu       abundaki            Zaki
```
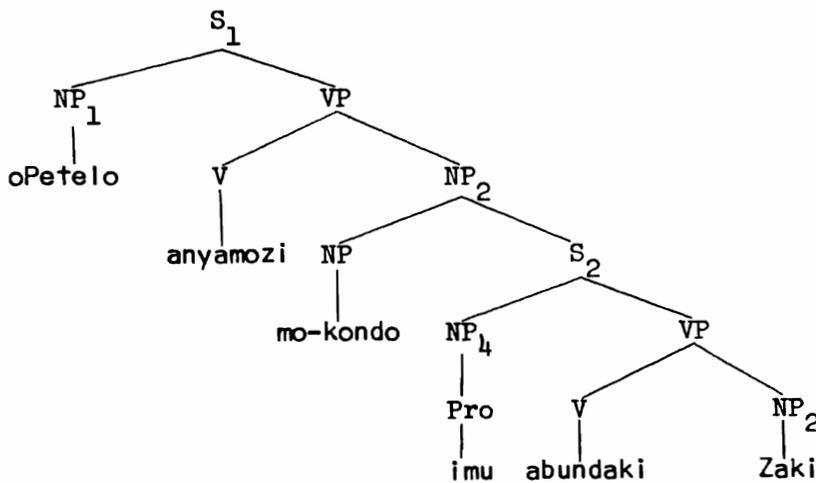
Eventually a <u>definitivization</u> rule must also apply, by which the indef-
inite mo- in NP_2, the head of the object-NP construction, is changed
to the definite imo-. Further, the agreement of the verb in S_2 must
also change. The original subject-agreement morpheme a-, agreeing with
Zaki, is dropped, and the relative pronoun imu-, (referring to the
deep object of S_2, mo-kondo 'alligator') is finally affixed as a
prefix to the verb, yielding (29):

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one (previously referred to object)'. In this regard the only context
that allows us to distinguish a regular NPP and a Rel Pro is that the
latter occurs in embedded S and is prefixed to the verb that immediate-
ly follows the NP that is being relativized.

(29)

```
                        S₁
          ┌──────────────┴──────────────┐
        NP₁                             VP
          │                   ┌──────────┴──────────┐
       oPetelo               V                    NP₂
          │                   │            ┌────────┴────────┐
          │              anyamozi         NP                S₂
          │                   │        ┌───┴───┐      ┌──────┴──────┐
          │                   │        D       N     NP₄           VP
          │                   │        │       │      │       ┌─────┴─────┐
          │                   │       i-   mo-kondo  Pro      V          NP₂
          │                   │        │       │      │       │           │
          │                   │        │       │  imu-bundaki  │         Zaki
          │                   │        │       │      │        │          │
        Peter              sold the  alligator that caught   Jack
```

'Peter sold the alligator that Jack caught'

To sum up, relativization in Dzamba involves two movement rules, (a) object attraction, and (b) subject postposing. The first rule is extremely widespread and probably universal (cf. the English gloss in (29) above). The second is highly specific, although other Bantu languages related to Dzamba are reported to show a similar pattern (see Meeussen [1971]). One may argue that this rule in Dzamba is motivated by the prefixing of the relative object pronoun directly to the verb, and therefore by a desire to prevent a conflict of concordial agreement. If this type of analysis is indeed correct, one may wish to argue that in Dzamba and related Bantu languages, the rule of subject postposing precedes, rather than follows, the rule of subject-verb agreement. Finally, relativization in Dzamba involves an obligatory definitivization of the head noun modified by the relative clause.[9]

We have seen in this section that noun phrases involving demonstratives, relative clauses or topicalization do not accomodate a [±DEF] contrast, but are all obligatorily [+DEF].

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[9]It is really an open question whether definitivization precedes or follows relativization. A more plausible alternative would be to propose that the two rules apply simultaneously.

4. Discussion

The noun pre-prefixes in Bantu languages, wherever they occur, are similar but not identical to determiners. In modern linguistic theory, determiners in Indo-European languages and the noun pre-prefixes in Bantu languages have been treated by various grammarians in the past with divergent views. For instance, traditional Bantuists have dealt with the NPP only on morphological grounds. Needless to say, the evidence I have presented above shows the inadequacy of such an approach, especially for a grammar which strives to account for meaning as well as grammatical well-formedness.

Assuming that my treatment of the noun pre-prefixes is correct, we might turn to the Indo-European languages such as English for a solution. But here again there seems to be no satisfactory solution. Views on the treatment of determiners are widely divergent, and there seems to be very little agreement. For instance, both in Syntactic Structures [1957] and Aspects of the Theory of Syntax [1965], Chomsky treats the determiners exactly as other lexical items where ART is a terminal category of the PS-rules. An important modification introduced in Aspects to this effect required that determiners be inserted into appropriate P-markers from the lexicon matching the subcategorization features of the terminal node.

Postal [1970], on the other hand, recognized no category such as ART; instead he postulated that determiners be represented in the DS as syntactic features of nouns (features analogous to [+animate], [+human],[10] ...) from which the features relevant to them are in part copied, and others are transformationally derived. Then a second lexical lookup would spell out the phonological shapes of the specified items.

Aside from Postal's approach in treating pronouns as determiners, one should point out that the transformational (or second-lexical) treatment of determiners does indeed mesh with the facts of Dzamba relativization, where the head of an NP containing a relative modifier must be definitivized. His solution is nevertheless not sufficient to account

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[10]Postal [1970:58].

for the facts presented in this paper.

An approach taken by Baker [1966], Bach [1968] and Dean [1968] seems to better approximate what I am looking for. Baker's theory would derive specific NP's from embedded existential clauses which do not surface. For instance the DS of one reading of the sentence

(30)   John wants to catch a fish.

would be

(31)   There is a fish, and John wants to catch it.

My main objection to Baker's theory is that the embedding becomes too complex for the grammar, and in fact it does not work when there are more than one indefinite NP's to account for.

Bach's theory is similar to Baker's except that he uses variables and quantifiesrs such as "x" and "SOME x" which are devoid of any syntactic, phonological and semantic content; they are simply referential. This theory would derive specific NP's from underlying non-restrictive relative clauses. Both of these approaches seem to be steps in the right direction.

The solution I have been leaning toward in this paper, and which seems to account nicely for the facts in Dzamba, has been proposed by Givón [1970]. Givón has shown, for Bemba, that the CV/VCV contrast is not a matter of [-DEF]/[+DEF], but rather of [+SPEC]/[-SPEC]. He has shown that this contrast can in many environments be predicted from the presuppositions or implications governing referentiality of the NP. Such an approach, as I have tried to show in the course of this presentation, accounts nicely for the difference between an affirmative S and a negative one containing the same verb. The presence of the noun pre-prefix bears crucially on presuppositions of existence (referentiality. This explains in part why NP's in constructions involving Dem Pro, Rel Pro and topicalization are obligatorily marked [+DEF].

5. Conclusion

On the basis of the preceding discusiion, it is evident that the noun pre-prefixes in Dzamba are similar, but not identical to the English

DEF ART, in that they have a wider scope of meaning, and involve presuppositions which have no correspondence in English. Further, the lack of existential presuppositions in the case of inherently negative verbs, conditionals, counterfactual conditionals, non-factive verbs, and negatives of factives explains why these environments involve a [±DEF] contrast in Dzamba, since they do not obligatorily require referentiality.

Definiteness in Dzamba is an optional subcategory of specificity. As I stated above, the latter is not equivalent to the former, because in some environments of [+SPEC] one can get the contrast [±DEF]. Obviously, in environments allowing [±SPEC], one may also get [±DEF] for the [+SPEC], but only [-DEF] for the [-SPEC]. Given these facts, the two notions, definiteness and specificity (referentiality), should not be taken as equivalent or interchangeable. And, while [-REF] ⊃ [-DEF] is always the case, the converse is not.

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