

# BARE NOUNS IN THE TYPOLOGY OF DPs\*

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## Abstract

This paper investigates two types of bare nouns in Malagasy: bare nouns in possessor raising contexts and bare noun objects. It is argued that these two types are structurally distinct. In possessor raising, the bare noun is in fact an NP, lacking a DP layer. Bare noun objects, on the other hand, are DPs with a null determiner. These structural differences can be seen to have both syntactic and semantic consequences.

## 1. INTRODUCTION

The goal of this paper is to evaluate the distribution of bare noun arguments, drawing on data from Malagasy, a western Austronesian language spoken in Madagascar.<sup>1</sup> Examples of bare noun arguments are given in (1).<sup>2</sup>

- (1) a. Rovi-body ny harona.  
torn-bottom DET basket  
'The basket has a torn bottom.'  
(Lit. 'The basket is torn on the bottom.') (K&R: ex. 21a)

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<sup>1</sup>Most of the data are from Keenan and Ralalahoerivony (2000), henceforth K&R. Other data are from my own field work.

<sup>2</sup>Abbreviations used in this article:

ACC	accusative	NM	nominalizer
AT	actor topic	NOM	nominative
CT	circumstantial topic	PS	past
DET	determiner	SG	singular
FOC	focus	TT	theme topic
GEN	genitive		

- b. Manani-bola izy.  
 AT.have-3-money 3(NOM)  
 'She has money.'

(K&R: ex. 4b')

In (1a) there is a bare noun *vody* 'bottom' adjacent to the matrix predicate *rovitra* 'torn', a stative verb. Note that *rovitra* 'torn' is the matrix predicate and in some sense *vody* 'bottom' modifies the predicate rather than vice versa. Similarly, in (1b) there is a bare noun *vola* 'money' next to the matrix verb *manana* 'have'. As will be discussed in some detail below, in both (1a) and (1b), the same phonological rule changes the initial [v] of both nouns to [b] (as well as effecting other phonological changes). Close examination of these data show that despite surface similarities, the two bare nouns in (1) have very different structure: the first is an NP, the second is a DP with a null D. Importantly, I will show that (1a) is an example of pseudo noun incorporation, as proposed for Niuean by Massam (2001).

## 2. BACKGROUND FACTS

### 2.1. DPs

Malagasy is a VOS language with fairly rigid order. Regular nominals (proper names, nominals with determiners/demonstratives) can appear in any argument position, as shown in (2) for *ny vehivavy* 'the woman'.

- (2) a. Subject:  
 Mihiry ny vehivavy.  
 AT.sing DET woman  
 'The woman is singing.'
- b. Direct object:  
 Manaja ny vehivavy Rasoa.  
 AT.respect DET woman Rasoa  
 'Rasoa respects the woman.'
- c. Indirect object:  
 Nanom-boky ny vehivavy Rasoa.  
 PS.AT.give book DET woman Rasoa  
 'Rasoa gave a book to the woman.'
- d. Object of a preposition:  
 Tezitra amin'ny vehivavy Rasoa.  
 angry with'DET woman Rasoa  
 'Rasoa is angry with the woman.'

I will henceforth refer to such nominals as DPs, given the presence of a determiner or demonstrative DPs can also scramble rightwards past adverbs (Rackowski 1988; Rackowski and Travis 2000).

- (3) a. Mamitaka ny ankizy matetika Rabe.  
 AT.trick DET child often Rabe  
 'Rabe often tricks children.'

- b. Mamitaka matetika ny ankizy Rabe.  
 AT.trick often DET child Rabe  
 'Rabe often tricks children.'

Rackowski (1988) and Rackowski and Travis (2000) claim that DP objects may scramble past any post-verbal adverb. A sample of these adverbs is given in (4).

- (4) *matetika* 'often'  
*tsara* 'well'  
*tanteraka* 'completely'  
*foana* 'always'  
*intsony* 'anymore'  
*mihitsy* 'at all'

The class of post-verbal adverbs thus contains manner and other VP-adverbs. Summing up, DPs in Malagasy have a "normal" argument distribution.

## 2.2. Other nominals

There are two types of bare nominal corresponding to (1a) and (1b). I will illustrate each in turn.

### 2.2.1. Bare possessives

Malagasy has what appears to be possessor raising, discussed in detail by Keenan and Ralaoherivony (2000). As shown by K&R, there are two main types: possessor raising to subject and possessor raising to object. The first is illustrated in (5) and (6): the possessor of the subject becomes the subject and the possessee is demoted to within VP.<sup>3</sup> The (b) examples are the raising versions of the (a) examples. Thus in (5a), *Rabe* is the genitive-marked possessor of *ny zanaka* 'the child', while in (5b) *Rabe* is the nominative subject.<sup>4</sup>

- (5) a. Marary ny zana-dRabe.  
 sick DET child.GEN.Rabe  
 'Rabe's child is sick.'
- b. Marary zanaka Rabe.  
 sick child Rabe  
 'Rabe has a sick child.' (K&R: ex. 3)
- (6) a. Rava ny tranony.  
 destroyed DET house.3(GEN)  
 'Her house was destroyed.'

<sup>3</sup>In this paper, I do not discuss the syntax of possessor raising. I assume that the bare possessee is within VP; arguments for the VP-internal status of the possessee are given in K&R.

<sup>4</sup>Throughout this paper, I refer to the clause-final DP as a subject, though some researchers argue that it is a topic (e.g. Pearson 2001).

- b. Rava trano izy.  
 destroyed house 3(NOM)  
 'She was house-wrecked.' (K&R: ex. 4d, d')

K&R provide ample evidence that the clause-final DP in these examples is the subject.

Instances of possessor raising to object are not as widespread, but K&R give several examples. As illustrated in (7) and (8), the possessor of the object becomes the object, while the possessee is demoted. In (7a), *ny gadra* 'the prisoner' is the genitive possessor of *ny fatorana* 'the bonds', while in (7b) *ny gadra* is an accusative object (accusative case is overtly marked on pronouns and certain common nouns as in (8b)).

- (7) a. Manak ny fatoran'ny gadra Rabe.  
 AT.remove DET bond.GEN.DET prisoner Rabe  
 'Rabe removes the prisoner's bonds.'
- b. Manak fatorana ny gadra Rabe.  
 AT.remove bond DET prisoner Rabe  
 'Rabe bond-removes the prisoner.' (K&R: ex. 60b, b')
- (8) a. Manety ny volon-janany Rabe.  
 AT.cut DET hair.GEN.child.3(GEN) Rabe  
 'Rabe cut his child's hair.'
- b. Manety volo an-janany Rabe.  
 AT.cut hair ACC-child.3(GEN) Rabe  
 'Rabe hair-cut his child.' (K&R: ex. 60a, a')

Bare possessee thus surface in what looks like a direct object position.

### 2.2.2. Bare objects

The other type of bare nominal appears as the direct object of a verb. If the verb and the noun have the correct phonological form, the two optionally "bond" to form one phonological word. Simplifying somewhat, bonding occurs when the predicate ends in *-na*, *-ka* or *-tra*. This syllable drops and the first consonant of the noun, if it is a fricative, becomes a stop or affricate. The resulting word (written with a hyphen), has one main stress as shown in (9). (See Rajemisa-Raolison 1971 for discussion and further examples.)<sup>5</sup>

- (9) a. Mānanæ vōla izy. → Mānam-bōla izy.  
 AT.have money 3(NOM)  
 'She has money.'
- b. Mangálitra fáry izy. → Mangàla-páry izy.  
 AT.steal sugar-cane 3(NOM)  
 'She steals sugar cane.'

<sup>5</sup>Note that this "bonding" is similar to, but distinct from, "N-bonding", which marks genitive case.

- c. Mandátsaka váto izy. → Mandátsa-báto izy.  
 AT.drop stone 3(NOM)  
 'She votes.' (K&R: ex. 21)

It thus appears that noun has incorporated into the verb. For the purposes of this paper, I assume that no incorporation has occurred; see Paul (2004) for arguments against incorporation.

### 3. THE STATUS OF BARE NOUNS

In comparison with DPs, discussed in section 2.1, bare nouns have a very restricted distribution. And despite their surface similarities, the two types of bare noun have very different syntactic and semantic properties.

#### 3.1. The similarities

As seen in example (1), repeated in (10), both bare possessives and bare objects have similar phonological effects. That is, given a verb with the right phonological shape, the bare noun bonds with the verb.

- (10) a. Rovitra vody ny harona. → Rovi-body ny harona.  
 torn bottom DET basket  
 'The basket has a torn bottom.' (K&R: ex. 21a)
- b. Manana vola izy. → Manam-bola izy.  
 AT.have money 3(NOM)  
 'She has money.' (K&R: ex. 4b')

Moreover, both types of bare noun must be string-adjacent to the verb and cannot be separated from the verb by an adverb.<sup>6</sup> The examples in (11) and (12) illustrate this order for bare possessives, those in (13) for bare objects. Note that in this way, bare direct objects differ from DP objects (see example (3)).

- (11) a. Possessor raising to subject:  
 Maty vady tampoka Rabe.  
 dead spouse suddenly Rabe  
 'Rabe was suddenly widowed.'
- b. \*Maty tampoka vady Rabe.  
 dead suddenly spouse Rabe (K&R: ex. 19b, c)
- (12) a. Possessor raising to object:  
 Nanendaka akanjo an-keriny an-dRabe Rasoana.  
 AT.tear-off clothes ACC-force ACC-Rabe Rasoana  
 'Rasoana tore Rabe's clothes off by force.'
- b. \*Nanendaka an-keriny akanjo an-dRabe Rasoana.  
 AT.tear-off ACC-force clothes ACC-Rabe Rasoana (K&R: ex. 63b, c)

<sup>6</sup>Some exceptions to this adjacency will be discussed below.

- (13) a. Bare object:  
 Mamitaka ankizy matetika Rabe.  
 AT.trick child often Rabe  
 'Rabe often tricks children.'
- b. \*Mamitaka matetika ankizy Rabe.  
 AT.trick often child Rabe

Thus bare nouns show a certain dependency on the verb, with both phonological and syntactic effects.

This dependency, however, may be interrupted in the case of non-active sentences, where the genitive agent must appear next to the verb. (14) is an example of a bare possessee: the noun *volo* appears next to the verb in (14a), but appears after the genitive agent in (14b).

- (14) a. Manety volo an-janany Rabe.  
 AT.cut hair ACC-child.3(GEN) Rabe  
 'Rabe cut his child's hair.'
- b. Heteza n-dRabe volo ny zanany.  
 TT.cut.3EN.Rabe hair DET child.3(GEN)  
 'His child has his hair cut by Rabe. (K&R: ex. 60a', ex. 48a')

Example (15) shows the same effect with a bare object: the bare noun *akanjo* appears after the genitive agent in (15b).

- (15) a. Nividy akanjo ho an'ny ankizy Rasoa.  
 AT.buy clothes for ACC'DET child Rasoa  
 'Rasoa bought clothes for the children.'
- b. Nividianan-dRasoa akanjo ny ankizy.  
 CT.buy.GEN.Rasoa clothes DET child  
 'Rasoa bought clothes for the children.' (K&R: ex. 23a, b)

Note that these examples show that the bare noun and the predicate do not form a lexical compound.

### 3.2. Differences

Despite the surface similarities, there are important differences between bare possessives and bare objects. First, as pointed out by K&R, bare possessives are non-referential. It is impossible to refer to them by a pronoun in later discourse, as shown in (16a). On the other hand, bare objects *do* introduce a discourse referent that can be referred to, as shown in (16b).

- (16) a. ?\*Maty vady Rabe. Efa antitrantitra (izy).  
 dead spouse Rabe already oldish (3.NOM)  
 'Rabe was widowed. She was already oldish.' (K&R: ex. 16b)
- b. Manam-bady Rakoto ary tiany izy.  
 AT.have-spouse Rakoto and love.3(GEN) 3(NOM)  
 'Rakoto has a wife and loves her.'

In fact, as stressed by K&R, many examples of possessor raising are highly idiomatic, pointing again to the non-referentiality of the possessee. Second, the nominalizations of verbs with bare possesseees and bare objects are different. For possessor raising, the genitive agent appears obligatorily outside of the bare possessee.

- (17) a. ny fahakingan-tsain-dRaso  
 DET NM.CT.quick-spirit.GEN.Raso  
 'Raso's intelligence'
- b. \*ny fahakingan-dRaso saina  
 DET NM.CT.quick.GEN.Raso spirit  
 'Raso's intelligence' (K&R: ex. 26d, e)

In the nominalization of a verb with a bare object, on the other hand, the genitive agent comes between the verb and the bare object (similar to the non-active sentence in (15b)).

- (18) a. ny fangalaran-dRaso fary  
 DET NM.CT.steal.GEN.Raso sugar  
 'the theft of sugar cane by Raso'
- b. \*ny fangalara-parin-dRaso  
 DET NM.CT.steal-sugar.GEN.Raso  
 'the theft of sugar cane by Raso'

Third, a bare possessee may be modified, but such modification is limited, as discussed by K&R. A bare object, however, can easily be modified, taking a relative clause modifier in (19b).

- (19) a. Maty zanaka hendry Rabe.  
 dead child wise Rabe  
 'Rabe suffers the death of his well-behaved child.' (K&R: ex. 32a)
- b. Manam-bola nangalarinao aho.  
 AT.have-money PS.TT.steal.2SG(GEN) 1SG(NOM)  
 'I have the money that you stole.'

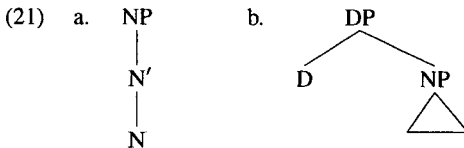
Finally, bare possesseees can never be realized as full DPs with a determiner, while it is always possible to convert a bare object by adding a determiner (with subsequent change in meaning). In other words, the possessee in possessor raising is always bare, while an object may be bare or not, depending on context.

- (20) a. \*Maty ny vady Rabe.  
 dead DET spouse Rabe  
 'Rabe was widowed.' (K&R: ex. 15a)
- b. Manana (ilay) vola aho.  
 AT.have (DET) money 1SG(NOM)  
 'I have (the previously discussed) money.'

In sum, bare possesseees and bare objects appear similar only on the surface. A closer look at syntactic and semantic properties reveals important differences between the two.

#### 4. THE SYNTAX OF BARE NOUNS

In order to account for the differences between bare possessives and bare objects, I suggest that they have different structures. In particular, bare possessives are NPs (20a), while bare objects are DPs (20b).



##### 4.1. Bare possessors

Recall that bare possessives are interpreted as non-referential. Example (22a) shows that the possessive may not appear with a determiner. Example (22b) (repeating (16a)) shows that possessive does not introduce a discourse referent. Finally, (22c) illustrates the narrow scope of a bare possessive: it obligatorily scopes under adverbs such as *indroa* 'twice'.

- (22) a. \*Maty ny vady Rabe.  
 dead DET spouse Rabe (K&R: ex. 15a)
- b. ?\*Maty vady Rabe. Efa antitrantitra (izy).  
 dead spouse Rabe already oldish (3.NOM)  
 'Rabe was widowed. She was already oldish.' (K&R: ex. 16b)
- c. Maty vady indroa Rabe.  
 dead spouse twice Rabe  
 'Rabe was twice widowed.'  
 ≠ 'Rabe's wife died twice.'

These data suggest that a bare possessive is non-referential and I therefore conclude that it is an NP, lacking the DP layer that corresponds to referentiality.

Possessor raising, under this approach, is a kind of pseudo noun incorporation (Massam 2001). Massam argues that what has been called noun incorporation in Niuean does not involve true incorporation. She shows that the incorporated element can be bigger than just a noun, but smaller than a full DP. Massam therefore concludes that the seemingly incorporated element is an NP, lacking case features and inert for syntactic movement. Her conclusions for Niuean fit nicely with the Malagasy possessor raising facts. The bare possessive is in fact syntactically inert and cannot be extracted, as shown by the ungrammaticality of (23).

- (23) \*Volo no fetezan-dRabe an-zanany.  
 hair FOC T.cut.GEN.Rabe ACC-child.3(GEN)  
 'It is his child's hair that Rabe is cutting.' (and not his nails)

On the other hand, a bare possessive is not syntactically incorporated into the verb, nor does it form a lexical compound with the verb. Thus elements such as genitive



agents can intervene between the verb and the bare possessee (see (15b)).<sup>7</sup>

#### 4.2. Bare objects

Turning now to bare objects, I follow a suggestion by Zribi-Hertz and Mbolatiana (1997) that Malagasy has a null determiner. In other words, bare objects are in fact full DP arguments. The null determiner accounts for the fact that bare objects can be interpreted as either definite or indefinite and for the possibility of relative clause modifiers, if relative clauses attach to the DP layer (24a). Moreover, bare objects introduce referents into the discourse (24b). Finally, because bare objects are regular DP arguments, they are syntactically active and can be extracted (24c).

- (24) a. Manam-bola nangalarinao aho.  
 AT.have-money PS.TT.steal.2SG(GEN) 1SG(NOM)  
 'I have the money that you stole.'
- b. Manam-bady Rakoto ary tiany izy.  
 AT.have-spouse Rakoto and love.3(GEN) 3(NOM)  
 'Rakoto has a wife and loves her.'
- c. Vola no nangalarinao.  
 money FOC PS.TT.steal.2SG(GEN)  
 'It was money that you stole.'

What is the difference between the null and the overt determiners? There seems to be a certain amount of intra-speaker variation in whether or not a direct object appears with a determiner. The distribution and interpretation of both determiners requires further research. Nevertheless, it is clear from the examples in (24) that the null determiner can be either definite or indefinite. This distinguishes bare objects from bare possessives: the latter are always indefinite. In sum, positing a null determiner in the above examples accounts for their syntactic and semantic properties, as well as distinguishing bare possessives from bare objects.

#### 4.3. What about phonology?

Although the proposed distinction between bare possessives and bare objects accounts for their differences, it leaves open the question of their similarities. In particular, why do both trigger the bonding process?

- (25) a. Rovitra vody ny harona. → Rovi-body ny harona.  
 torn bottom DET basket  
 'The basket has a torn bottom.' (K&R: ex. 21a)

<sup>7</sup>The anonymous reviewer asks why the bare possessee must be bare and, unlike bare objects, cannot appear with a determiner. I suggest that this is due to Case: first, I assume that DPs, but not NPs, require Case; second, in possessor raising, there is no Case for the possessee (the predicate is either intransitive or already has an object); thus the possessee must be realized as an NP and not a DP.

b. Manana vola izy. → Manam-bola izy.

AT.have money 3(NOM)

'She has money.'

(K&R: ex. 4b')

I suggest that this bonding is a phonological process and not an indicator of a particular syntactic relation. As mentioned earlier, bonding is optional and is determined by the phonological shape of the words. In order for bonding to occur, the first word must end in *-na*, *-ka* or *-tra*. These syllables are "weak": they do not count for stress placement and are dropped in instances of bonding. Other examples of bonding show that this process is active in many different contexts, not just predicate+noun (Rajemisa-Raolison 1971). Within words, it is found in reduplication. Syntactically, it is found in several contexts. The example in (26a) has bonding between a noun and a conjunction and (26b) shows bonding between a noun and a modifying adjective.

(26) a. marainy sy hariva → marain-tsy hariva

morning and evening

'morning and evening'

b. satroka fotsy → satro-potsy

hat white

'white hat'

(Rajemisa-Raolison 1971: 9, 11)

Note, however, that it is not true that bonding is completely insensitive to structure. Bonding never occurs between a verb and a nominative subject.

(27) a. Mandolalika Rabe.

AT.kneel Rabe

'Rabe is kneeling.'

b. \*Mandohali-dRabe.

AT.kneel-Rabe

Moreover, bonding does not occur with DP objects with overt determiners, hence the contrast in (23).<sup>8</sup>

(28) a. Mangalibary ity lehilahy ity.

AT.steal-*rice* this man this

'This man is stealing rice.'

b. \*Mangala-ny variko ity lehilahy ity.

AT.steal-DET *rice*.1SG(GEN) this man this

'This man is stealing my rice.'

I do not have an analysis of the contrast in (28), but here offer some suggestions. It may be the case that bonding can only occur between elements in the same phonological phrase. There is a strong intonational break between the VP and the subject, ruling out (27b). A study of the intonation of VPs in Malagasy would confirm whether a similar boundary exists between a verb and an object with an overt determiner, hence blocking bonding in (28b). A null determiner, however, is not visible

<sup>8</sup>I would like to thank the anonymous reviewer for raising this question.

to the phonology and bonding may occur with bare objects, as in (28a). Another possibility is that there is some particular property of overt determiners that blocks bonding in (28b). Importantly for this paper, however, bonding does not distinguish between NPs (bare possessives) and DPs with null determiners (bare objects).<sup>9</sup>

## 5. CONCLUSION

This paper has examined what appeared to be bare noun arguments in Malagasy. I have argued that in the case of possessor raising, the bare possessee is an NP. This is therefore an instance of pseudo noun incorporation (Massam 2001). Bare direct objects, however, have been shown to be full DPs, with a null D. Thus other than the presence of a null rather than overt determiner, these bare nouns are in fact regular DP arguments. As well as providing further evidence in favour of pseudo noun incorporation, the Malagasy data show that some bare nouns are not as bare as they appear on the surface and are in fact DPs.

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<sup>9</sup>An obvious alternative analysis suggests itself here. Objects with determiners are DPs, bare possessives are NPs, and bare objects are of some category in between. Bonding is blocked in the first case, but not the other two. For reasons of space, I do not explore this possibility here, but I leave it open for future research.