

Possession in Sentences and Noun phrases

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1. Introduction
2. Predication analyses for possessive noun phrases
3. BE+TO (= HAVE)
4. BE+CHEZ (= HAVE)
5. The derivation and representation of possessive sentences
6. Why possessive noun phrases are different
7. BE+OF (= BELONG)
8. Conclusion

1. Introduction

There have been attempts in the literature to provide a uniform structural analysis for possessive noun phrases, e.g. *La voiture de Jean* 'John's car' and possessive sentences, e.g. *Jean a une voiture* 'Jean has a car' and *La voiture est a Jean* 'the car is to Jean/The car is John's'. The idea is that even though the two constructions superficially appear to be different from each other, they have the same structural representation at some level of abstraction. Some of these attempts take the form of reducing or, rather, expanding, possessive noun phrases to possessive sentences/clauses. They consist of arguing that (possessive) noun phrases have a richer underlying structure which includes a clause (CP/IP) and where the structural relationship between the possessor (POSSor) and the possessee (POSSee) is the same as in possessive sentences. The relationship in question is one of predication mediated by some (complex) predicative category the nature of which differs from one analysis to another. Two such analyses are outlined and discussed in Section 2. One is an earlier analysis suggested by Bach (1970) and Hailu Fulass (1972) on the basis of Amharic possessives. The other is a more recent analysis suggested by Kayne (1994), relying on ideas in Freeze (1992), which is based on possessives in French and English.

This paper argues for the more orthodox view that possessive sentences and possessive noun phrases do not share a common structure. Moreover, the relationship between POSSor and POSSee is different in each of the two constructions. Possessive sentences involve a predication relationship between POSSor and POSSee mediated by a locative predicate, either a locative preposition or a complex consisting of a locative preposition and BE. On the other hand, possessive noun phrases involve a restrictive relationship between POSSor and POSSee whereby POSSor restricts the reference of POSSee (the head of the noun phrase) by binding a variable inside it. The structural relation underlying restrictiveness is spec-head agreement with a functional category of the noun phrase. A number of arguments are outlined in various sections of the paper in

support of this view. The discussion is based mostly, though not exclusively, on data from Moroccan Arabic.

Section 3 discusses the combination BE+TO said to give rise to a possessive reading in French. It is shown that this combination does not give rise to a possessive reading in Moroccan Arabic (and English). It is also pointed out that French sentences with the combination BE+TO actually have a reading close to that of BELONG rather than HAVE. Section 4 discusses the combination BE+CHEZ which gives rise to a possessive reading in Moroccan Arabic, though not in French. Section 5 discusses the derivation and representation of possessive sentences and includes an attempt to explain why Moroccan Arabic lacks the verb HAVE. Section 6 outlines and discusses the arguments for why possessive noun phrases do not share the same structure with possessive sentences. Section 7 discusses the combination BE+OF which gives rise to the reading BELONG in Moroccan Arabic and compares it with French and English sentences such as *Ce livre est à Marie/This book is Marie's*.

2. Predication analyses for possessive noun phrases

Bach (1970) and Hailu Fulass (1972) remark that Amharic possessive noun phrases bear the same grammatical marker as relatives, namely the particle *yä*. The latter appears on the possessor in possessive noun phrases and on the (rightmost) verb in relatives. Amharic is a head-final language where both possessives and relatives are N-final. The particle *yä* is glossed with the neutral expression Grammatical Marker (GM):

- (1) a. *tämari-w lä-Kassäcc yä-sät't'at däbtär* (Amharic)
student-the to Kassacc GM-he-gave-her notebook
'the notebook which the student gave to Kassacc'
- b. *yä-Kassä däbtär*
GM-Kassa notebook
'Kassa's notebook'

(Hailu Fulass 1972:500/508)

Bach and Hailu Fulass identify the particle *yä* as a relative marker, possibly occupying the Comp position in the underlying structure (see Mullen 1986). An inevitable consequence of this step is that possessive noun phrases must be analyzed as relatives, that is, as involving a hidden relative clause in their representation. According to this analysis, POSSor is the head-N of the relative noun phrase modified by a relative clause which includes POSSee and a copy of POSSor. The representation then undergoes a number of (reduction) transformations, prominent among them is Equi NP Deletion which deletes the clause-internal copy of POSSor. The derivation also includes a transformation which moves the relative marker *yä* from its clause-final position (Amharic being a Comp-final language) and attaches it to POSSor.

The relationship between POSSor and POSSee inside the relative clause is one of predication. Hailu Fulass draws a parallelism between this relationship and the one found in French possessive sentences such as *Le cahier est a Jean* ‘the notebook is to Jean/The notebook is Jean’s’. He then goes on to remark that contrary to what is found in French, Amharic does not tolerate the equivalent dative preposition *lä* ‘to’ on the possessor in possessive sentences (2a):

- (2) a. *lä-Kassa däbtär alläw. (Amharic)
to-Kassa notebook there-is-to-him
‘Kassa has a notebook.’
- b. Kassa däbtär alläw.
Kassa notebook there-is-to-him
‘Kassa has a notebook.’
- (Hailu Fulass 1972:507)

To explain why (2a) is excluded, Hailu Fulass suggests that the dative preposition is already included in the verb *alläw* ‘have’, and hence his glossing of it as ‘there-is-to-him’. More precisely, the (Amharic) verb HAVE has a complex form which consists of the verb BE and the dative preposition TO (HAVE = BE+TO). Adding the dative preposition to POSSor is unnecessary and therefore excluded. The French possessive sentences which represent a true parallel to Amharic possessive sentences such as (2b) are the ones which include the verb *avoir* ‘have’, e.g. *Jean a un cahier* ‘Jean has a notebook’. This is because in these examples POSSor does not bear the dative preposition. Equally importantly, POSSor has the grammatical function ‘subject of the sentence’, while POSSee has the grammatical function ‘object of HAVE’. In French examples such as *Le cahier est a Jean* ‘the notebook is to Jean’ the grammatical functions of POSSor and POSSee are the reverse (more on this in Sections 3&7).

Mullen (1986) takes a different view concerning the nature and function of the particle *yä* in possessive noun phrases and relatives. In possessive noun phrases it has a function which is equivalent to that of the English preposition OF. It is inserted by a special rule, presumably the same rule suggested to be responsible for insertion of *of* in relevant English noun phrases (Chomsky 1986). In relatives, the particle *yä* is a relative marker located under Comp. It shows up on the rightmost verb as a result of (rightward) verb-movement to Comp. The fact that the particle is the same in possessive noun phrases and relatives is therefore an accident.

Ouhalla (1996) shares with Bach and Hailu Fulass the view that the particle *yä* of possessives and relatives has the same function in both constructions. He differs crucially, though, in assuming that it is a grammatical function indicating morpheme which reflects the structural relation ‘subject of noun phrase’. This claim is made in a broader context which involves an attempt to reanalyze restrictive relative clauses as subjects of noun phrases, on a par with possessors, instead of as adjuncts. The details of the analysis are not relevant to the current discussion. What is crucially relevant is the point that the fact that

Amharic possessive noun phrases share the same marker as relatives does not necessarily mean that possessive noun phrases involve a (relative) clause (CP/IP) in their representation where POSSor and POSSee are in a predication relationship. To make this point more emphatically, evidence needs to be presented which shows that the distribution of the particle *yä* in other contexts is inconsistent with the view that it is a relative marker and consistent with the view that it is a grammatical function indicating morpheme which reflects the grammatical function ‘subject of noun phrase’ . .

One such context is complement clauses of factive verbs discussed in Demissie Manahlot (1997) and illustrated in (3a&b):

- (3) a. *yä-Kassa-n alga mä-srat (ine) sämma-hu.* (Amharic)
 GM-Kassa bed CM-make (I) heard-I
 ‘I heard that Kassa made a bed.
 ‘I heard of Kassa’s making a bed.’
- b. *yä-Kassa-n bet mä-gzat sämma-hu.*
 GM-Kassa house CM-buy heard-I
 ‘I heard that Kassa bought a house.’
 ‘I heard of Kassa’s buying a house.’
 (Demissie Manahlot 1977:142-8)

Demissie Manahlot shares with Bach and Hailu Fulass the view that *yä* is a relative marker. Consequently, he goes on to suggest that factive complement clauses are hidden relatives. He adopts the view suggested in Kiparsky and Kiparsky (1971) that they are headed by a noun such as ‘fact’ and ‘news’ which subsequently gets deleted. As a matter of fact, in Amharic, as in English and other languages, factive complements can be preceded by a noun such as *wäre* ‘news’:

- (4) *Kasa bet yä-mä-gzat-u-n wäre sämma-hu.* (Amharic)
 Kasa house GM-CM-buy-his-OM news heard
 ‘I heard the news that Kasa bought a house.’
 (Demissie Manahlot 1977:134)

The distinction in structure that needs to be made between N-complement and relatives was not available at the time, and therefore can be put aside. Still, Demissie Manahlot himself points out a crucial difference between factive complement clauses and relatives relating to the position of the marker *yä*. The latter appears on the rightmost verb in relatives, but on the subject in factive complement clauses.

The possessor-like property of the subject of factive complement clauses is actually a familiar one found in a number of languages, including English. It reflects the fact that factive complement clauses tend to have a nominal character (see Comrie and Thompson 1985). Demissie Manahlot’s dissertation, which is about *Nominal Clauses in Amharic*, includes a detailed discussion of the nominal character of factive complement

clauses and others in the language. The nominal character of the Amharic factive complement clauses is induced by the affix *mä-* on the verb. The complex which consists of the verb and this suffix is the equivalent of the Arabic and Hebrew *masdar* and the English gerund. The nominal character of constructions which include a *masdar/gerund*, including the fact that their subject shows up in a possessor-like form, meaning it has the grammatical function ‘subject of noun phrase’, is well-known and does not need further justification here.

The distribution of the particle *yä* in factive complement clauses shows that it is an indicator of the grammatical function ‘subject-of-noun phrase’ rather than a relative marker. Its appearance in possessive noun phrases cannot therefore be taken as evidence that they involve a relative clause in their representation where POSSor and POSSee are in a predication relationship.

Hailu Fulass’s idea that the verb HAVE has a complex form which consists of the verb BE and the preposition TO resurfaced in more recent analyses, in particular Freeze (1992) and Kayne (1994), although these analyses may differ as to the exact nature of the preposition. Although Kayne’s analysis does not reduce possessive noun phrases to relatives, it shares with Bach and Hailu Fulass’ analyses the view that the representation of possessive noun phrases involves a clause where POSSor and POSSee are in a predication relationship. The English noun phrases *John’s car* and *two pictures of John’s* and the French noun phrase *La voiture de Jean* ‘the car of John’ have the derivations and representations shown in (5):

- (5) a. [D/P [ip John [i’ ‘s [car ...
 b. two pictures [D/P of [ip John [I’ ‘s [e] ...
 c. la [voiture [de [ip Jean [I’ [e] ...

The representation is a DP with a CP/IP (a clause) as a complement. POSSor is in the subject position of the clause and POSSee starts in the predicate position and may move to Spec,C as in the English example (5b) and the French example (5c). The English ‘s is an inflectional element located under I and has an abstract counterpart in the French example. The preposition OF is a ‘prepositional complementiser’ located under C.

Possessive sentences such as *Jean a une voiture* ‘Jean has a car’ have the representation shown in (6) where the structure in (5a-c) is embedded under the verb BE. POSSor moves to Spec,BE (the subject position of the sentence) via Spec,D/P. The latter step is licensed by incorporation of D/P into BE. The complex BE+D/P is then spelled out as HAVE:

- (6) ...BE [d/PP [D/P [ip Jean [I [voiture] ...

The discussion of data from Moroccan Arabic in Sections 4 & 5 will show that the analysis of HAVE as a complex verb which involves a prepositional predicate of some sort is probably on the right track. Among other things, it makes it possible to offer a

reasonable explanation for why Moroccan Arabic lacks the verb HAVE and, consequently, why it lacks possessive sentences with POSSor in the subject position and POSSee in the predicate position.

3 BE+TO (= HAVE)

The combination *kan* ‘be’ and the dative preposition *l* ‘to’ (BE+TO) does not give rise to a possessive reading in Moroccan Arabic. (7a&b) can have a benefactive reading, a common property of the dative preposition, but not a possessive reading. In this respect, Moroccan Arabic resembles English and differs from French:

- (7) a. had l-ktab l Nadia. (Moroccan Arabic)
 this the-book to Nadia
 *‘This book is Nadia’s.’
 ‘This book is for Nadia.’
- b. had l-ktab kan l Nadia.
 this the-book was to Nadia
 *‘This book was Nadia’s.’
 ‘This book was for Nadia.’

Moroccan Arabic present copular sentences, like their counterparts in other Semitic languages such as Hebrew, lack the copular verb BE. In addition to present tense nominal sentences such as (7a), I provide past tense sentences with the verb BE such as (7b). The verb BE makes explicit certain agreement properties of possessive sentences which are crucial for a proper analysis of their derivation and representation (see Section 5).

Why does the Moroccan Arabic (and English) dative preposition not give rise to a possessive reading in sentences? The answer to this question may lie with the fact that the Moroccan Arabic (and English) dative preposition does not have a locative reading. French locative sentences with TO such as *Marie est a Paris* ‘Marie is to Paris/Marie is in Paris’ have no equivalent in Moroccan Arabic (and English). (8a&b) have the absurd reading, if any, shown in the English gloss. The locative reading in this context can only be obtained with the use of the locative preposition *f* ‘in’ shown in (9a&b):

- (8) a. Nadia l Casablanca. (Moroccan Arabic)
 Nadia to Casablanca
 *‘Nadia is in Casablanca.’
- b. Nadia kant l Casablanca.
 Nadia was to Casablanca
 *‘Nadia was in Casablanca.’

- (9) a. Nadia f Marrakech.
Nadia in Marrakech
'Nadia is in Marrakech.'
- b. Nadia kant f Marrakech.
Nadia was in Marrakech
'Nadia was in Marrakech.'

The observed difference between the French TO on the one hand and the Moroccan Arabic TO and English TO on the other can be encoded in terms of the lexical feature [+LOC(ATIVE)]. The French TO has this feature responsible for its locative use, whereas the Moroccan Arabic TO and English TO lack this feature, and hence the fact that they cannot have a locative reading.

The conclusion which emerges is that locative prepositions are the elements which determine the possessive reading in copular sentences. To check whether this conclusion is correct, we need to find a locative preposition in Moroccan Arabic and see whether it gives rise to a possessive reading when included in a copular sentence. This task is carried out in the next section.

For the moment, note that it is not clear there is a genuine parallelism in meaning between French BE+TO-sentences such as *Le livre est a Marie* 'the book is to Mary/The book is Marie's' and HAVE-sentences such as *Marie a un livre* 'Marie has a book'. French BE+TO-sentences have the meaning associated with BELONG rather than HAVE. Borrowing Benveniste's (1966) terminology, BE+TO sentences express 'appartenance' while HAVE-sentences express 'possession'. It is an interesting question whether there is a genuine link between copular sentences with the meaning BELONG and sentences with the verb HAVE. Benveniste's statement that 'avoir n'est rien d'autre qu'un etre-a inverse' (p.197) seems to imply that the difference between the two types of sentence is purely syntactic or derivational. In BE+TO-sentences, POSS_{ee} is the subject of the sentence and POSS_{or} is in the predicate position. In HAVE-sentences POSS_{or} is the subject of the sentence and POSS_{ee} the direct object. This view is taken to its logical limit by den Dikken (1995) who suggests one common structure for both types of sentence and derives HAVE-sentences by predicate-inversion. This issue is discussed in Section 7.

4 BE+CHEZ (= HAVE)

Moroccan Arabic has a locative preposition, 'and, which has a meaning similar to that of the French locative preposition CHEZ. English lacks the equivalent of this preposition but the meaning can to a certain extent be paraphrased with the expression 'at X's (place)'. (10a&b) appear to have a possessive reading, as they can be paraphrased with the inferred statements 'Nadia is/was an author/a mother':

- (10) a. Nadia ‘nd-ha ktab/wld. (Moroccan Arabic)
 Nadia CHEZ-her book/boy
 ‘Nadia has a book/a boy.’
- b. Nadia kan ‘and-ha ktab/wld.
 Nadia was CHEZ-her book/boy
 ‘Nadia had a book/boy.’

(10a&b) seem to confirm the conclusion that a locative preposition/predicate plays a crucial role in the possessive reading of sentences. For two noun phrases to have a possessive reading in a sentence, they must be in a locative relationship with each other mediated by a locative preposition/predicate. This is not new. However, the conclusion begs the fairly obvious question: Why and how a locative relationship between two noun phrases gives rise to a possessive reading? What is possession, anyway?

The answer to these questions arguably lies with a peculiar property of the sentences in (10a&b). Their possessive reading seems to be equally crucially dependent on POSS_{ee} being indefinite. When POSS_{ee} is definite, as in (11a&b), the possessive reading disappears and instead a different reading obtains which can be described as ‘temporary location’. This is also true of French and English examples with HAVE, e.g. *Nadia a le livre/l’argent/l’enfant* ‘Nadia has the book/the money/the boy’. These examples are not paraphrasable with the inferred statements ‘Nadia is/was an author/a mother’:

- (11) a. Nadia ‘nd-ha l-ktab/l-wld. (Moroccan Arabic)
 Nadia CHEZ-her the-book/the-boy
 ‘Nadia has the book/the money/the boy.’
- b. Nadia kan ‘nd-ha l-ktab/l-wld.
 Nadia was CHEZ-her the-book/the-boy
 ‘Nadia had the book/the boy.’

In view of the reading of (11a&b), described as ‘temporary location’, perhaps the more accurate way of describing the reading of (10a&b) is in terms of the notion ‘permanent location’. I will come back to this notion later on in relation to possession. For the moment, we seem to have an additional requirement which complicates further the question how the possessive reading is derived in copular sentences. It seems that POSS_{or} and POSS_{ee} not only must be in a locative relationship, POSS_{ee} must also be indefinite.

It is plausible to argue that the basic semantic relation between POSS_{or} and POSS_{ee} is essentially a locative one. When POSS_{ee} is definite, the locative relationship is closed or temporary, and when it is indefinite, the locative relationship is open-ended or permanent. What is called possession is essentially a pragmatic notion inferred from the semantic relation of open-ended location. If X is indefinitely located at Y’s, then Y possesses X. The idea that possession is not a primitive semantic notion is not new, although there are analyses which assume the existence of a possessor thematic role. What

I have tried to do is identify the elements which determine the possessive reading in sentences, and try to make explicit the mechanism whereby the combination of these elements leads to a possessive reading.

The elements which determine the possessive reading are a locative preposition/predicate and an indefinite POSSee. Note that the present tense example (10a) lacks the verb BE, raising the question whether BE plays a role at all in the possessive reading. I will leave this question open in view of the fact that present tense copular sentences are sometimes argued to include a null present tense version of BE. In the next section, I will outline the derivation and representation of possessive sentences with the combination BE+CHEZ and determine their relationship to sentences with HAVE.

5. The derivation and representation of possessive sentences

The past tense examples in the previous section all involve the verb in the masculine singular form which is also the impersonal form in the language. The fact that POSSee is also masculine singular therefore makes it unclear whether POSSee agrees or does not agree with the verb. Including a plural POSSee reveals an important property of such sentences. When POSSee is indefinite, it does not agree with the verb. The verb has the impersonal form in this case. However, when POSSee is definite, it agrees with the verb:

- (12) a. Nadia, kan ‘and-ha ktub/flus/wlad. (Moroccan Arabic)
Nadia was CHEZ-her books/money/boys
‘Nadia had books/money/children.’
- b. Nadia, kan-u ‘and-ha l-ktub/l-flus/l-wlad.
Nadia were CHEZ-her the-books/the-money/the-boys
‘Nadia had the books/the money/the children.’

The fact that POSSee does not agree with the verb in (12a) means that POSSee is not related to the subject position. On the other hand, the fact that POSSee agrees with the verb in (12b), presumably, means that POSSee is related to the subject position of the sentence. As a matter of fact, (12b) sounds much more natural with POSSee in the (initial) subject position as in (13). (12b) is an instance of subject-postposing, also found in sentences with a main verb. (13) the parallel of French CHEZ-sentences such as *Les livres/les enfants sont chez Marie*:

- (13) l-ktub/l-flus/l-wlad kanu ‘and-ha/Nadia. (Moroccan Arabic)
the-books/the-money/the-boys were CHEZ-her/Nadia
‘The books/the-money/the boys were at her/Nadia’s place.’

The agreement properties of the two types of copular sentence provide crucial information relating to their respective derivations and representations. It is plausible to take the view that examples where BE is in the impersonal form, such as (12a), reflect

more directly the underlying representation, on the grounds that nothing significant seems to happen in their derivation. These sentences have the form shown in (14a) which reflects the structure often assumed for copular sentences in the more recent literature (Moro 1991). BE selects a small clause complement which consists of a PP predicate comprising the locative preposition CHEZ and POSSor and a DP subject which includes POSSee. The full structure is shown in (14b):

- (14) a. BE [[CHEZ POSSor] [POSSee]]
 b. [ip [e] I BE [sc [pp CHEZ POSSor] [dp POSSee]]]

The linear order of the constituents of the small clause, where the PP precedes POSSee, seems to be problematic on the view that PP is the predicate and POSSee the subject. This is so of course unless one assumes a right-branching subject for the small clause, in which case POSSee is expected to follow the PP predicate. I will abstract away from this problem in the rest of the discussion. A possible justification for this order is provided later on, although nothing crucial hinges on it.

All that needs to happen in the derivation of sentences such as (12a) from (14) is insertion of a null expletive in the subject position Spec,IP. Recall that the verb has the impersonal form in these sentences. The constituents of the small clause remain in-situ, at least in overt syntax. Sentences such as (12) therefore have the overt representation shown in (15). I will come back to the question how ‘permanent location’ is computed from such a structure:

- (15) [ip [dp pro] I BE [sc [pp CHEZ POSSor] [dp POSSee]]]

Sentences such as (12b) and (13), where POSSee is definite and agrees with the verb, involve movement of POSSee to the subject position of the sentence, as shown in (16):

- (16) [ip [POSSee]_i I BE [sc [CHEZ POSSor] [e]_i]

(16) is also the representation of French CHEZ-sentences such as *Les livres/enfants sont chez Nadia* ‘the books/children are at Nadia’s’, where POSSee is in the subject position and, consequently, agrees with the verb.

Moroccan Arabic possessive sentences differ crucially from English and French HAVE-sentences with respect to the grammatical functions of POSSor and POSSee. In Moroccan Arabic possessive sentences, POSSee and POSSor both remain in-situ as none of them displays agreement with the verb. In English and French HAVE-sentences, however, POSSor is the subject and POSSee is located in the object position of HAVE. According to the Freeze-Kayne analysis outlined earlier, English and French HAVE sentences are derived in two steps. One step involves incorporation of locative P into BE, resulting in HAVE. The other is movement of POSSor to the subject position. The second step is crucially dependent on the first step. Incorporation of P into BE enables POSSor,

the complement of P, to move to the subject position, a process which otherwise would not be possible. Using the structure above, English and French HAVE-sentences have the derivation roughly outlined in (17):

(17) [ip [POSSor]_i I BE+[CHEZ]_j [sc [[e]_j [e]_i] [POSSee] ...

BE and CHEZ form a complex predicate which together with POSSee form the basis on which the notion ‘permanent location’ is computed. Recall that English and French HAVE-sentences exhibit the same definiteness effect as Moroccan Arabic CHEZ-sentences. They have a ‘permanent location’ and therefore possessive reading only when POSSee is indefinite. If the computation of the possessive reading is crucially dependent on the creation of a complex predicate via incorporation, the derivation of Moroccan Arabic possessive sentences outlined above is at best incomplete. Suppose that these sentences undergo incorporation of CHEZ into BE at LF which results in releasing POSSor and enabling it to move to the subject position. Recall that the subject position is filled with a null expletive in overt syntax, so that LF-movement of POSSor is an instance of ‘expletive-replacement’ (Chomsky 1986) or ‘LF-adjunction’ (Chomsky 1995). Accordingly, Moroccan Arabic possessive sentences have the LF-representation roughly shown in (18) which is identical to the representation of English and French HAVE-sentences shown in (17):

(18) [ip [POSSor]_i I BE+[CHEZ]_j [sc [[e]_j [e]_i] [POSSee] ...

(18) is consistent with the view that ‘permanent location’ and therefore possession is computed on the basis of a complex predicate derived via incorporation. It is even consistent with the more radical view that the possessive reading is crucially dependent not only on the derivation of a complex locative predicate, but also on POSSor being in the subject position of the sentence, as in English and French HAVE-sentences.

The scenario outlined achieves further results, besides the fundamental result of assigning Moroccan Arabic possessive sentences an LF-presentation which is identical to that of English and French HAVE-sentences. It makes it possible to provide a reasonable explanation for why Moroccan Arabic lacks the verb HAVE, unlike English and French. On the view that HAVE is the spellout of BE+CHEZ, Moroccan Arabic lacks HAVE because it lacks overt incorporation of CHEZ into BE (or P-incorporation into V; see Baker 1988). Because Moroccan Arabic lacks overt incorporation of CHEZ into BE, it also lacks HAVE-type sentences where POSSor is in the subject position in overt syntax. The idea that CHEZ LF-incorporates into BE in Moroccan Arabic possessive sentences arguably also explains the rather odd word order whereby the PP predicate precedes the DP subject [PP DP] pointed out earlier. If P-incorporation into V requires adjacency, the constituent which includes P must be adjacent to the verb. This scenario is identical to the one adopted in Baker (1988) where English double object constructions, e.g. Mary gave John a book, are derived by P-incorporation into V from an underlying representation where PP is adjacent to V: [give [pp to John] [dp a book]].

6 Why possessive sentences are different from possessive noun phrases

The elements identified as responsible for the possessive reading in copular sentences are the locative preposition CHEZ incorporated and an indefinite POSSee. It is legitimate to argue that any analysis which attempts to assign a structure to noun phrases which mimics that of possessive sentences, on the grounds that they both have a possessive reading determined by predication, must account for the determining elements in that structure. The structure assigned by Hailu Fulass (1972) to Amharic possessive noun phrases includes a predicative preposition, albeit perhaps the wrong one. The predicative preposition gets deleted in the mapping onto the surface structure of noun phrases, apparently irrecoverably. The structure assigned by Kayne (1994) to English and French possessive noun phrases does not include a locative preposition, as shown in above.

The two attempts to assign noun phrases a structure which (partly) mimics that of possessive sentences seem to be (partly) motivated by the desire to provide a uniform structural account for possession. In the Generative Semantics tradition adopted by Hailu Fulass, the idea that similarity in meaning implies similarity in the underlying representation which determines that meaning was a strong guiding principle. The modern version (though not an exact equivalent) of that principle is Baker's (1985) Uniformity of Theta Assignment Hypothesis (UTAH) which states that 'Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.' (p. 46). UTAH makes explicit reference to thematic roles, and we have seen that there is no evidence that there is such a thing as a possessive thematic role. Possession, as concluded, is essentially a pragmatic notion inferred from the semantic relation of open-ended location. It is therefore misleading to assign a uniform structure to possessive sentences and possessive noun phrases on the grounds that they have the same meaning if the 'same meaning' is understood to mean 'identical thematic relationships'.

It is equally misleading to state that possessive sentences and possessive noun phrases have the same meaning even if meaning is understood in a much broader sense to mean contextually determined interpretation. As is well-known, a possessive noun phrase such as *Nadia's book* can 'mean anything under the sun'. It can have a broad range of contextually determined readings, e.g. 'the book that Nadia likes best (but which is located in some faraway library)', 'the book that Nadia never talks about', in addition to the possessive reading such as 'the book that Nadia owns (but did not write)' and 'the book that Nadia wrote'. This is not the case with possessive noun phrases such as *Nadia has a book* or even its relative noun phrase counterpart *the book that Nadia has*. Possessive sentences have a comparatively much more restricted range of contextually determined readings. Moreover, the readings they allow invariably involve a locative relationship. For example, *Nadia has a book* and *the book that Nadia has* can in the right context be interpreted to refer to a book that Nadia is holding in her hands or keeping at home or in some hidden place but does not own. However, they cannot conceivably be interpreted to refer to a book that Nadia likes best but which is not in a locative relationship to her. The same is true for parallel examples in Moroccan Arabic:

- (19) a. ktab Nadia (Moroccan Arabic)
 book Nadia
 ‘Nadia’s book’
- b. l-ktab dyal Nadia
 the-book of Nadia
 ‘Nadia’s book’
- c. Nadia ‘and-ha ktab.
 Nadia CHEZ-her book
 ‘Nadia has a book.’

The range of contextually determined interpretations allowed by possessive sentences is constrained by the locative predicate in their representation. The fact that the range of contextually determined interpretations of possessive noun phrases is not so constrained means that they do not include a locative predicate in their representation. Granted this conclusion, the next step is to work out how the possessive reading is derived in noun phrases. First, we need to assign noun phrases a structure.

Possessive noun phrases in Arabic and Hebrew have attracted a large amount of attention in the literature. It is not my aim in this paper to dispute or suggest an alternative to any of the existing analyses. As a matter of fact, any analysis would do for the purposes of this paper, which is primarily to define the semantic relationship between POSSor and POSSee that gives rise to the possessive reading in noun phrases. Purely for the purpose of presentation, I will assume the structure of noun phrases in (20a&b) and (21):

- (20) a. [dp D+[N] [agrp [POSSor] AGR [np
 b. [dp D+[N] [agrp [e] AGR [of-POSSor] [np

Spec,Agr is the genitive position, where genitive Case is determined via spec-head agreement. (20a) is the representation of Construct State (genitive) possessives illustrated in (19a). (20b) is the representation of Free State (oblique) possessives illustrated in (19b). FS possessives differ from CS possessives in that the oblique POSSor is not in Spec,Agr but in a lower position the exact identity of which is not terribly crucial. Both types of possessive are N-initial due to placement of N in D.

(21a) below is an example of Amharic possessives. Unlike their Arabic and Hebrew counterparts, Amharic possessive noun phrases are N-final with properties very similar to the English genitive possessives (see Ouhalla 1996 for detail). Their N-final nature is due to failure of N to raise to D. The genitive POSSor is in the same position as its counterpart in Arabic and Hebrew CS possessives:

- (21) a. yä-Kassä däbtär
 GM-Kassa notebook

‘Kassa’s notebook’

b. [dp D [agrp [POSSor] AGR+[N] [np

The interpretations that a possessive noun phrase such as ‘Nadia/Kassa’s book’ could have can be characterized as follows: ‘Nadia/Kassa’s book’ denotes a book which has the property of being associated with Nadia/Kassa in a manner determined by context. The notion ‘association’ is to be understood in terms of ‘restrictiveness’. That is, (association with) Nadia restricts the reference of ‘book’ to a particular instance. This is the function usually associated with the definite article in simple definite noun phrases such as *l-ktab* ‘the book’. Formally, it takes the form of binding of the free variable of N by the definite article: [dp THE(x) [np N(x)]]. N has a free variable by virtue of denoting a set, and binding of this variable by the determiner yields an individual reading for the definite noun phrase. It is argued in Ouhalla (1996) that possessors have exactly the same function as a definite article, so that the analysis usually assumed for the definite article can be extended to them. This means that POSSor acts as an operator which binds the variable associated with the head-N resulting in an individual reading for the possessive noun phrase. For the purposes of this paper, the position where restrictive modifiers, i.e. operators on N, are interpreted is Spec, D. If the restrictive modifier is not in this position in syntax, it moves there at LF: [dp POSS(x) [N(x)]].

The analysis briefly outlined for the relationship between POSSor and the head-N in possessive noun phrases offers a natural explanation for the fact, well-known from studies on Arabic and Hebrew CS possessives and English genitive possessives, that POSSor is in complementary distribution with the definite article of the head-N:

(21) (*1-) *ktab Nadia*
the- book Nadia
‘Nadia’s (*the) book’

On the view that POSSor has the same function as the definite article with respect to the head-N, their inability to co-occur follows naturally from the ban on vacuous quantification. One of the two operators will not have a variable to bind. The explanation is basically the same as Chomsky’s (1986) explanation for why determiners cannot be iterated in English noun phrases, e.g. **every the dog*.

This explanation leaves out FS possessives illustrated in (19b) where the oblique POSSor co-occurs with the definite article on the head-N. There are two possible explanations for this property of FS possessives which are explored in detail in Ouhalla (1996). Here I will only give a brief summary. The two possible explanations depend on whether the oblique POSSor has a restrictive or a non-restrictive reading with respect to the head-N. If the oblique POSSor has a non-restrictive reading, it does not act as an operator with respect to the head-N. Therefore, its co-occurrence with the definite article on the head-N does not raise a problem for the analysis. If, on the other hand, the oblique POSSor has a restrictive reading, it should in principle be unable to co-occur with the

definite article on the head-N. However, this would be the case only if the definite article on the head-N were necessarily construed to have an operator status. It is possible that the definite article on the head-N in this case is an instance of the class of expletive determiners discussed in Vergnaud and Zubizarretta (1992) and Longobardi (1994).

The expletive determiner and the oblique POSSor situated low in the structure (20b) are in an ‘expletive-associate’ relationship much like the relationship between an expletive in the higher subject position of a sentence and a noun phrase subject lower in the structure discussed in Chomsky (1995). The ‘expletive-associate’ relationship between the definite article and the oblique POSSor enables the oblique POSSor to be interpreted in the position associated with the determiner, that is, Spec,D. One could assume that at LF the oblique POSSor undergoes raising to Spec,D, a position from which it can bind into the head-N.

With this in mind, let us now go back to the question how the possessive reading is derived in possessive noun phrases. The semantic relation underlying these noun phrases is restrictiveness, whereby POSSor binds the variable associated with the head-N yielding an individual reading. Accordingly, a noun phrase such as ‘Nadia’s book’ denotes a particular member of the set of books denoted by the head-N which has the property of being associated with Nadia. Association with Nadia can take a number of possible forms determined by the context, among them possession. As in the explanation of possessive sentences, possession is essentially a pragmatic notion inferred from more basic primitive semantic relations. In possessive sentences, it is inferred from the semantic relation of open-ended location, and in possessive noun phrases, it is inferred from the semantic relation of restrictiveness (or association).

If this reasoning is correct, the fact that some of the copular sentences and noun phrases discussed can have a possessive reading does not necessarily mean that they must share the same structure or must share ‘significant structure’ which involves predication between POSSor and POSSee at some level of their respective derivations (see Williams 1980 for more arguments against predication in noun phrases).

7 BE+OF (= BELONG)

In Section 3, the question was raised as to whether French BE+TO-sentences are genuine equivalents of HAVE-sentences and whether the two types of sentence are indeed related at all. French BE+TO sentences express the meaning BELONG rather than HAVE. Benveniste (1966), quoted in Section 3 above as saying that ‘have is nothing more than inverted BE-TO’, seems to imply that the difference between the two types of sentence is syntactic and derivational in nature. den Dikken (1995) adopts this view and postulates one structure for both types of sentence, where POSSee is the subject and POSSor the predicate of a small clause complement of BE. BE+TO sentences are derived by raising of the subject POSSee to the subject position of the sentence. HAVE-sentences are derived

by raising of the predicate (predicate inversion) to the subject position of the sentence and incorporation of TO into BE.

According to the analysis outlined in the previous section, which took into consideration data from Moroccan Arabic in addition to French and English, HAVE is probably best analyzed as the combination of BE+CHEZ rather than BE+TO. Suppose that there is a genuine difference between the meaning associated with HAVE and the meaning associated with BELONG, and that this difference is determined by the nature of the preposition which combines with BE. One could then postulate, as a working hypothesis, that while the meaning associated with HAVE results from combining CHEZ with BE, the meaning associated with BELONG results from combining a different type of preposition with BE. This hypothesis seems to be supported by data from Moroccan Arabic, English) and other languages.

Before embarking on the discussion of the data, it is important to stress at this point that the hypothesis just stated does not claim that the English verb *belong* and its French equivalent *appartenir* have a compositional structure which consists of a preposition incorporated into BE. Whether these verbs have a syntactically derived compositional form, on a par with *have* and *avoir*, is an interesting question, but it will not be addressed here. The token BELONG is used in this section to represent meaning associated with copular sentences and as we will see later on also with some noun phrases. As far as the current discussion is concerned, the fact that the meaning associated with the French BE+TO sentences is the same as the meaning associated with the verbs *belong* and *appartenir* is just an (unfortunate) accident.

It was pointed out in Section 2 above that the reason the French TO gives rise to the meaning BELONG in BE+TO-sentences is often attributed to its ability to have a locative reading encoded in terms of the feature [+LOC]. The locative reading of French TO can be clearly seen in sentences such as *Marie est a Paris* 'Marie is in Paris.' However, there is evidence that the ability of TO give rise to the meaning BELONG is not necessarily related to its ability to have a locative reading. In both Standard Arabic and Tarifit Berber, TO gives rise to the meaning BELONG in copular sentences. However, in neither language can TO have a locative reading of the type found in French sentences such as *Marie est a Paris*:

- (22) a. haadhaa l-kitaab-u li l-bint-i. (Standard Arabic)
this the-book-NOM to the-girl-GEN
'This book is the girl's/belongs to the girl.'
- b. *al-bint-u li Paris.
the-girl-NOM to Paris
'The girl is in Paris.'

- (23) a. axxam-a i-wfrux. (Tarifit Berber)
 room-this to-boy
 ‘This room is the boy’s/belongs to the boy.’
- b. *afrux i-Paris.
 boy to-Paris
 ‘The boy is in Paris.’

The ability of TO to give rise to the meaning BELONG in French, Standard Arabic and Tarifit Berber copular sentences relates to a property which is different from the property encoded with the feature [+LOC]. The property in question is also found French noun phrases with the meaning BELONG such as *un livre a Marie* ‘a book of Marie’s’. As shown in the translation, the English equivalent noun phrases require the genitive form of POSSor. For lack of a better term, I will call the feature in question [+APPART(ENANCE)]. The French TO has this feature and so does the English ‘s (but see later). The important point to retain here is that the reason the French TO gives rise to the meaning BELONG in copular sentences and noun phrases is not because it has the feature [+LOC]. We have seen that the Standard Arabic and Tarifit Berber TO can give rise to the meaning BELONG in copular sentences even though they do not have a locative reading. Rather, French TO, as well as Standard Arabic TO and Tarifit Berber TO, give rise to the meaning BELONG because they have the entirely separate feature [+APPART].

With this in mind, let us now turn to Moroccan Arabic. The meaning BELONG is obtained in Moroccan Arabic copular sentences by including the preposition OF:

- (24) a. had l-ktab dyal Nadia. (Moroccan Arabic)
 this the-book of Nadia
 ‘This book is Nadia’s.’
- b. had l-ktab kan dyal Nadia.
 this the-book was of Nadia
 ‘This book was Nadia’s.’
- c. had l-ktub kanu dyal Nadia.
 this the-books were of Nadia
 ‘These books were Nadia’s.’

The pattern in (24) is unavailable in both English, e.g. **This book is of Nadia*, and French, e.g. **Ce livre est de Nadia*. The reason is that the English OF and the French OF do not have the feature [+APPART]; in other words, they are semantically empty as is often assumed. The Moroccan Arabic OF arguably carries the feature [+APPART] and therefore is not semantically empty. It is not easy to adduce evidence for this alleged difference between the Moroccan Arabic OF on the one hand and the English and French OF on the other hand. However, it is perhaps relevant to point out that answers to

questions such as (25a) must include the preposition OF in Moroccan Arabic, as shown in (25b). The presence of OF is necessary to convey the possessive meaning or the meaning BELONG:

- (25) a. Q: *dyal men kan had l-ktab?* (Moroccan Arabic)
of whom was this the-book
‘Whose book was this?’
- b. A: (kan) *(*dyal*) *Nadia*.
was of Nadia
‘(It was) Nadia’s.’

The view that the Moroccan Arabic OF has semantic content in the form of the feature [+APPART] is consistent with the fact pointed out above and discussed in Ouhalla (1996) that they can have a non-restrictive reading.

A possible argument in favor of the claim that ‘s is the element which carries the feature [+APPART] in English copular sentences with the meaning BELONG comes from pronominal possessors. English pronominal possessors are incompatible with ‘s in possessive noun phrases, e.g. **Her’s/their’s book*. However, ‘s is not only possible with pronominal possessors in copular sentences with the meaning BELONG, but even obligatory, e.g. *This book is her *(’s)/their *(’s)*. Presumably, ‘s is necessary in order to convey the meaning BELONG which cannot otherwise be gleaned from the genitive morphology of pronouns.

An interesting implication of the analysis outlined, if correct, is that Moroccan Arabic noun phrases with OF should be at least ambiguous between a possessive reading a BELONG-reading. The ambiguity is arguably felt more strongly in noun phrases with an indefinite head such as (26). As a matter of fact, the meaning BELONG is arguably much more prominent than the possessive reading in (26). Note that semantically equivalent noun phrases in English and French normally have an indefinite head-N, e.g. *A book of Nadia’s* and *un livre a Nadia*.

- (26) ktab dyal Nadia (Moroccan Arabic)
book of Nadia
‘A book of Nadia’s’

The next step is to determine the underlying representation and derivation of copular sentences with the meaning BELONG. It is tempting to assume that such sentences derive from an underlying representation where POSSor and POSSee form a possessive noun phrase in the complement position of BE. The temptation is stronger in relation to the English examples which include the genitive form of POSSor. If the genitive form of POSSor necessarily implies a structure where POSSor is in the genitive position of a DP (Spec,Agr in the structure suggested above), it is tempting to assume that POSSee forms the rest of the DP of which POSSor is a genitive specifier. However, we

have seen that pronominal possessors are incompatible with 's in noun phrases but require it in copular sentences with the meaning BELONG. Moreover, POSSee can bear a demonstrative or a definite article, e.g. *This/the book is Nadia's*, which is not possible in noun phrases, e.g. **Nadia's this/the book*, possibly due to the ban against vacuous quantification mentioned earlier. Finally, English genitive possessive noun phrases invariably have a restrictive reading, whereas there is no sense at all in which POSSor can be said to have a restrictive function with respect to POSSee in sentences such as *This book is Nadia's*.

A more promising line to follow is to assign copular sentences with the meaning BELONG a structure which parallels that of HAVE-sentences (but see below). POSSor and POSSee form a small clause complement of BE, where POSSor is the subject and POSSee the predicate, roughly as in (27a&b):

- (27) a. [ip [e] I BE [sc [POSSor] [POSSee]]
 b. [ip [POSSee]_i I BE [sc [POSSor] [e]_i]

Whether the predicative POSSee is a PP or just a DP depends on whether the Moroccan Arabic OF and the French TO project a PP structure or not. The answer to this question is not crucial to the aims of the current discussion. If they do, the feature [+APPART] would be associated with P, and if they do not project a PP, the feature would be associated with DP (POSSee) with OF and TO being its spellout. The latter option can also be applied to the English genitive POSSor, with 's the spellout of the feature [+APPART].

Alternatively, the genitive POSSor could be assumed to be in the genitive position (Spec,Agr) of a DP which does not include an NP (often suggested for pronouns): [dp D [agrp [POSSor]'s AGR...]]. In the latter case, the feature [+APPART] would be associated with Agr. The pattern typical of sentences with the meaning BELONG where POSSee is the subject is derived by movement of POSSee to the subject position, roughly as shown in (27b).

It is not clear, however, how the analysis outlined in (27) accounts for the unavailability of sentences such as (28) in Moroccan Arabic, English and French. (28a-c) illustrate a crucial and rather revealing property of copular sentences with the meaning BELONG, namely the fact that the POSSee in the subject position cannot be indefinite:

- (28) a. *shi ktab dyal Nadia. (construed as a sentence) (Moroccan Arabic)
 some-book-or-other of Nadia
 b. *A book is Nadia's.
 c. *Un livre est a Nadia.

The unavailability of (28a-c) is unlikely to be due to some restriction which requires subjects to be definite. English is known to allow indefinite subjects in copular sentences.

Moroccan Arabic and French locative sentences with CHEZ also allow an indefinite subject, as shown in (29):

- (29) a. shi wld ‘and Nadia. (Moroccan Arabic)
 some-boy-or-another CHEZ Nadia
 ‘A boy is at Nadia’s place.’
- b. Un garçon est chez Nadia.
 a boy is CHEZ Nadia

There is a sense in which copular sentences with the meaning BELONG have an equative meaning and therefore may be reduced equative copular sentences. The equative copular form of such sentences can actually be fleshed at least in Moroccan Arabic and English (30a&b). As is well-known, a typical property of equative copular sentences is that the two noun phrases they involve can be switched around the copular element (30b). It is perhaps significant that (30b) sounds much more natural with ‘the book’ in the initial position deleted, as in (30c). In Moroccan Arabic, as in Hebrew, the copula takes the form of a ‘pronominal form’ glossed as PRON:

- (30) a. had l-ktab huwwa l-ktab dyal Nadia. (Moroccan Arabic)
 this the-book PRON the-book OF Nadia
 ‘This book is Nadia’s book.’
- b. l-ktab dyal Nadia huwwa had l-ktab.
 the-book OF Nadia PRON this the-book
 ‘This book is Nadia’s book.’
- c. dyal Nadia huwwa had l-ktab.
 OF Nadia PRON this the-book

If copular sentences with the meaning BELONG are viewed as equative copular sentences, which they seem to be, the fact that their subject cannot be indefinite follows from the more general requirement that equations require identity of denotational types. As is well-known, an equative sentence can involve two definite noun phrases but not an indefinite and a definite noun phrase:

- (31) a. Nadia hiyya l-mudira. (Moroccan Arabic)
 Nadia PRON the-director
 ‘Nadia is the director.’
- b. *shi bnt hiyya l-mudira.
 some-woman-or-another PRON the-director
 *‘A woman is the director.’

The conclusion that copular sentences with the meaning BELONG are essentially equative in nature does not affect the argument made earlier that the meaning BELONG is determined by a category which carries the feature [+APPART]. The latter is carried by the relevant category inside the relevant noun phrase of the equative copular sentence. The relevant category is the preposition OF in Moroccan Arabic, 's in English and the preposition TO in French. In English sentences with a pronominal POSSor, *This book is her's/their's*, the element 's is spelled out subsequent to deletion to ensure recoverability of the feature [+APPART] which otherwise would not be recoverable from the morphology of the pronoun. Earlier, we took the view that the meaning BELONG is found in both copular sentences and noun phrases. If the conclusion that copular sentences with the meaning BELONG are equative is correct, it appears that the meaning BELONG is exclusively a property of noun phrases. The relevant copular sentences have the meaning BELONG because they include a noun phrase which includes a category with the feature [+APPART].

Although I will not pursue this point further here, it may be that noun phrases with the meaning BELONG actually involve a predication relationship similar to the one found in sentences with the verb BELONG. In other words, a predication analysis may be viable for noun phrases with the meaning BELONG, after all. What I hope I have shown is that such an analysis is not viable for noun phrases with a possessive reading.

8. Conclusion

The major aim of this paper was to show that possessive sentences and possessive noun phrases do not share the same structure, nor, for that matter, 'significant structure', and that the semantic relation between the possessor and the possessee is different in each of the two constructions. Possessive sentences involve a predication relationship between the possessor and the possessee mediated by a locative preposition. Possessive noun phrases involve a restrictive relationship between the possessor and the possessee, whereby the possessor acts as an operator that binds the variable associated with the possessee (the head). Copular sentences with the meaning BELONG are essentially equative in nature. The meaning BELONG is determined by the feature [+APPART] carried by a category included in one of the noun phrases which make up the equation. The discussion was based on data from Moroccan Arabic compared to data from Amharic, English and French.

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