

## Double Genitives Aren't (Quite) Partitives\*

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### 1 Introduction

The characterization of the structure of English *double genitives*—DPs like those in (1)—is still a matter of debate in the literature. Recent analyses, proposed by Barker (1998) and Zamparelli (1998), argue that English double genitives are structurally identical to *possessive partitives*—exemplified in (2). According to these authors double genitives and possessive partitives are instances of the same (partitive) construction, the two types of DPs differing only in terms of the position in which the noun denoting the possessed entity is spelled out.

- (1) a. a friend of John's  
b. two cars of John's  
c. most dogs of John's
  
- (2) a. one of John's friends  
b. two of John's cars  
c. most of John's dogs

An analysis which treats double genitives and possessive partitives as instances of the same construction intuitively derives the prediction that, other factors not intervening, the two types of DPs should display the same syntactic and semantic properties. Within such an analysis, any asymmetry in the properties of the two constructions can be explained only in terms of their differences in surface structure. In this paper I address a *semantic* asymmetry existing between the two types of DPs which, as far as I know, has not been pointed out before in the literature, and I discuss its consequences for the analysis of double genitives. The relevant asymmetry is exemplified by the contrast in (3):

- (3) Yesterday John and Paul were attacked by (different) groups of dogs;
  - a. ...unfortunately some of John's dogs were pitbulls.
  - b. # ...unfortunately some dogs of John's were pitbulls.

In (3a) the partitive 'some of John's dogs' can receive a *contextual* interpretation under which it is interpreted as denoting a subset of the group of dogs which attacked John. On the other hand the double genitive 'some dogs of John's' in (3b) does not license this interpretation. The double genitive in (3b) can only be interpreted as denoting a subset of the dogs owned by John, which makes the whole sentence odd as continuation of the context-setting sentence.

The asymmetry displayed in (3) is problematic for an analysis which treats the two types of DPs as instances of the same construction in that it is not immediately obvious that this semantic difference can be derived from a mere distinction in phonological or surface form between double genitives and possessive partitives. I argue that this semantic distinction between the two constructions

calls—minimally—for a revision of the analysis in Barker (1998) and Zamparelli (1998); I propose that double genitives, while having an essentially partitive-like structure, differ from possessive partitives proper in the definiteness value of the nominal which partitive ‘of’ takes as complement.

The structure of the paper is as follows. Section 2 introduces some relevant aspects of the analysis proposed by Barker (1998).<sup>1</sup> Section 3 addresses the nature of the contextual reading and its availability in possessive partitives. Section 4 shows how the unavailability of the contextual reading in double genitives can be derived from the indefiniteness of the nominal following ‘of’ in this type of DP. Section 5 proposes some arguments showing that the distinction between possessive partitives and double genitives postulated in the previous section can account for other—otherwise unexpected—distributional asymmetries holding between the two types of DPs. Finally, Section 6 briefly addresses some loose ends of the proposal presented and outlines future lines of research.

## 2 Double genitives as partitives

In genitive constructions in English the genitive relation is normally marked by either the Saxon genitive bound morpheme ‘’s’ (4a) or by the preposition ‘of’ (4b); the presence of both morphemes in many cases leads to ungrammaticality:

- (4) a. the president’s brother  
b. the brother of the president  
c. \* the brother of the president’s

In double genitives, on the other hand, both the morpheme ‘’s’ and the preposition ‘of’ are present. If both morphemes are markers of the genitive relation—as the name ‘double genitives’ suggests—one of the two should be semantically redundant. This hypothesis can be labeled the *pleonastic genitive hypothesis*.

Barker (1998) develops a series of arguments against the pleonastic genitive hypothesis, arguing in favor of the hypothesis that double genitives are actually partitives (the *partitive hypothesis*). For the pleonastic genitive hypothesis to be correct either the morpheme ‘’s’ or the preposition ‘of’ in double genitives must be semantically vacuous. Under the first assumption ‘of DP’s’ in double genitives should be equivalent to ‘of DP’ in (4b). However—as Barker notes—the two do not have the same distribution, which argues against the assumption that in double genitives the morpheme ‘’s’ is semantically vacuous.

The alternative assumption that the preposition ‘of’ does not contribute to the meaning of double genitives is rejected in Barker (1998) too. Building on an observation by Jackendoff (1968), Barker notes that English double genitives display a peculiar semantic effect which he labels *anti-uniqueness*. This effect, which characterizes possessive partitives as well, amounts to the impossibility of combining either type of construction with the definite determiner (5a,c) unless these DPs contain additional modification (5b,d).

- (5) a. \* I met the one of John’s friends.  
b. I met the one of John’s friends that you pointed out last night.

- c. \* I met the friend of John's.
- d. I met the friend of John's that you pointed out last night.

Barker (1998) accounts for anti-uniqueness in terms of the semantics of partitive constructions: partitive DPs (DP<sub>1</sub> in (6)) denote a *proper* part of the entity denoted by the (embedded) DP which follows partitive 'of' (DP<sub>2</sub> in (6)). In the semantic composition, partitive 'of' introduces the proper partitivity requirement, both in possessive partitives and in double genitives.<sup>2</sup> Thus both 's' and 'of' in double genitives contribute to the semantics of the DP: 's' marks the genitive relation and 'of' enforces the partitive semantics.

In Barker (1998) both (1c) and (2c) are interpreted as if the noun 'dogs' occurred twice—once within the embedded DP<sub>2</sub> and once in the position preceding partitive 'of'—the only difference between these two DPs being that in (1c) this noun is spelled out in the embedded position and in (2c) it is spelled out in the higher position. Barker does not commit himself to a specific analysis of the syntax of possessive partitives and double genitives, thus it is not clear whether he assumes the two types of DPs to share the same syntactic structure at some level or to be derivationally related.<sup>3</sup> However it is clear that he assumes the semantics of the two types of DPs to be the same: both types of DPs map to the same semantic structure (6), in which the whole DP<sub>1</sub> denotes a proper subset of DP<sub>2</sub>.

$$(6) \quad [_{DP1} \dots [_{XP} NP_i [_{X'} \text{of}_{part} [_{DP2} \dots NP_i]]]]$$

The contrast shown in (3) above is obviously problematic for Barker's account. If the semantics of double genitives is the same as that of the corresponding possessive partitives, one would expect the double genitive DP in (3b) to be able to license a contextual interpretation parallel to the interpretation licensed by the possessive partitive DP in (3a). A digression into the semantics of possessive DPs is necessary in order to understand why this contrast arises.

### 3 The derivation of the contextual reading

Possessive DPs always involve two nominals, a nominal denoting the *possessor* and a nominal denoting the *possessum* (the possessed object). The possessor nominal behaves semantically as a restrictive modifier of the possessum nominal. That is, the denotation of a possessive DP is an object of the kind determined by the possessum which bears *some relation* to the object denoted by the possessor. The nature of the relation holding between possessor and possessum—it has long been noticed in the literature—is not restricted to just ownership or possession proper.

Barker (1995) distinguishes between two kinds of possessives: in *lexical* possessives the nature of the relation encoded by the DP is determined by the lexical semantics of the possessum, which denotes a relational entity; in *extrinsic* possessives, instead, the possessum nominal does not denote a relational entity, and the nature of the relation encoded by the whole DP must be recovered from its context of use. The linguistic reality of this distinction is highlighted by contrasts like that in (7), which immediately follows from the postulated distinction and the self-evident felicity condition in (8). Lexical possessives necessarily express a relation which is contextually salient because the relation is introduced by the

semantics of the possessum nominal. Extrinsic possessives, on the other hand, can be used only when the context makes some relation between possessor and possessum salient; this explains the oddness of (7b) when uttered out of the blue.

- (7) a. John's daughter  
b. # John's hurricane
- (8) FELICITY CONDITION ON THE USE OF POSSESSIVE DPs (Barker (1993))  
Possession relations must be sufficiently salient.

Barker (1993; 1995) does not explicitly address the problem of how and when a contextually salient relation can be recovered by a subsequent possessive DP. The contrast in (3) shows that salience of some relevant relation does not guarantee that extrinsic possessives can be felicitously used in a given context. The form of a possessive DP plays a role in recovering a contextually salient relation.

Assuming that the possessive relation involved in extrinsic possessive DPs is left syntactically underspecified, its nature could be recovered from the context in one of two ways. One possibility is that this relation is syntactically encoded by a pronominal-like relational category which looks for an antecedent in the context. The interpretation of the possessive DP 'John's dogs' in (9) would then be due to the possibility of linking the pronominal category contained in this DP to an antecedent—the relation  $\lambda y \lambda x. \mathbf{attack}(y)(x)$ —introduced in the first sentence.

- (9) Yesterday John and Paul were attacked by (different) groups of dogs.  
Unfortunately John's dogs were pitbulls.

Alternatively, the assumption that extrinsic possessive DPs contain some sort of pronominal-like category could be dispensed with, deriving the interpretation of the relation involved in extrinsic possessives from the discourse semantics of these DPs. The possessive DP in (9), indeed, is a *definite* DP, and by Heim's (1982) *familiarity condition* is restricted to denote a discourse-familiar entity. In (9) the definite possessive DP can be linked to a discourse referent introduced in the first sentence—the discourse referent for the group of dogs which attacked John—which specifies the nature of the relation holding between possessor and possessum, deriving the contextual interpretation.

Getting back now to the contrast introduced in (3)—which is repeated in (10) below—it should be easy to see that, under either of these approaches, the availability of the contextual interpretation for the possessive partitive in (10a) can be immediately derived in terms of the interpretation of partitives.

- (10) Yesterday John and Paul were attacked by (different) groups of dogs,  
a. ...unfortunately some of John's dogs were pitbulls.  
b. # ...unfortunately some dogs of John's were pitbulls.

As pointed out in the previous section, a partitive DP is interpreted as denoting a (proper) part of the entity denoted by the nominal following partitive 'of.' But in (10a) this nominal is the definite possessive 'John's dogs' which—I have just

argued—can recover a contextually salient relation. The whole possessive partitive DP in (10a) can then be interpreted as denoting a subset of the group of dogs which attacked John, deriving the contextual reading pointed out in the introduction.

#### 4 Towards an explanation of the asymmetry

The meaning of the possessive partitive in (10a) is—so to speak—“anchored” to the context by the interpretation of the nominal which follows partitive ‘of.’ Assuming the correctness of this analysis, the problem presented by the contrast in (10) is that of accounting for the impossibility of anchoring in a parallel fashion the meaning of the double genitive in (10b) to the preceding context. If the semantics of the DP coming after partitive ‘of’ (DP<sub>2</sub> in (6)) is the same in the two constructions, as Barker (1998) assumes, one would expect the double genitive in (10b) to license the contextual interpretation as well.

A possible way out of this contradiction could be that of denying that the contextual interpretation is not licensed by the double genitive DP in (10b). That is, one could assume that the absence of the relevant interpretation in (10b) is not due to grammatical constraints, but is the result of processing limitations of some sort. Some implementation of this idea—originally suggested to me by Chris Barker (p.c.)—could possibly account for the contrast in (10) without having to abandon the proposal that double genitives and possessive partitives have essentially the same structure. Nevertheless, I am not convinced that an approach along these lines would be successful,<sup>4</sup> so I propose to adopt the only other possible way out of the contradiction, namely rejecting the idea that double genitives and possessive partitives are instances of (exactly) the same construction.

In principle, one could reject Barker’s (1998) proposal as a whole, arguing that the assumption that double genitives have a partitive structure is simply on the wrong track. An analysis in which the structure of double genitives is completely different from the structure of possessive partitives would not necessarily predict the two constructions to behave alike in contexts like (10). However I would like to sketch an account of the contrast in (10) which tries to maintain Barker’s intuition that double genitives have an essentially partitive structure. Indeed, I find his arguments that ‘of’ in double genitives is partitive ‘of’ convincing and his semantic account for anti-uniqueness in partitive constructions quite appealing.

In Barker (1998) the semantics of double genitives is essentially equivalent to the semantics of possessive partitive DPs. I instead propose that double genitives, while having a partitive structure, differ from possessive partitives in the discourse semantics of the DP which follows partitive ‘of.’ In possessive partitives DP<sub>2</sub> is *definite*; in double genitives, instead, DP<sub>2</sub> is necessarily *indefinite*. This revised analysis—which is still compatible with the partitive hypothesis—immediately derives the absence of the contextual reading for the double genitive in (10b). Indeed, given its partitive semantics this DP will be interpreted as denoting a (proper) part of the entity denoted by the embedded DP<sub>2</sub>. If the latter is indefinite, and thus subject to Heim’s (1982) *novelty condition*, it will be restricted to denote discourse-novel entities. But then double genitives will necessarily denote part of a discourse-novel entity.

In the previous section I argued that the embedded DP in possessive partitives is crucial in deriving the contextual reading: the interpretation of the

embedded DP anchors the meaning of possessive partitives to the preceding context. But even under the assumption that extrinsic possessives contain some pronominal-like category which looks for an antecedent in the previous context, linking the interpretation of this category to some contextually-salient relation will be incompatible with the discourse semantics of the embedded DP<sub>2</sub> in double genitives.

Indeed, it seems safe to assume that a relation which is not encoded in a relational noun is made salient in a given context by mentioning the entities which stand in the relevant relation, which is expressed by a verb. But this amounts to the conclusion that in a context in which some relation is salient the entities which entertain the relation are familiar. If the pronominal-like category which is contained in the embedded DP<sub>2</sub> in double genitives were linked to a contextually available antecedent, this DP would end up denoting a discourse-familiar entity, in violation of the novelty condition that holds of it because of its indefiniteness. The unavailability of the contextual interpretation in double genitives follows from the interaction between the necessary discourse-novelty of the discourse referent associated with their embedded DP<sub>2</sub> and from their partitive semantics.

To summarize, I assume—along with Barker (1998)—that both double genitives and possessive partitives are partitive constructions, interpreted as having the schematic structure depicted in (11) (repeated from (6)):

$$(11) \quad [_{DP1} \dots [_{XP} NP_i [_{X'} \text{of}_{part} [_{DP2} \dots NP_i]]]]$$

Departing from Barker's account, I propose that the two types of DPs differ in the nature of their embedded DP<sub>2</sub>. In double genitives this cannot be definite, and thus cannot anchor the meaning of the whole DP<sub>1</sub> to the previous context, as instead is the case for possessive partitives. Notice that for the moment I assume the structure in (11) to be a semantic, rather than a syntactic structure. I will return later to the issue of whether (11) is a structure shared at some syntactic level by the two types of DPs. Before dealing with this and other issues raised by the distinction between double genitives and possessive partitives proposed in this section, I would like to point out how this proposal derives some interesting predictions concerning attested asymmetries in the distribution of these two types of DPs.

## 5 Supporting evidence

The assumption that the embedded nominal in double genitives is indefinite apparently faces an immediate problem. Indeed, the embedded nominal in (10a) is—within the analysis I am adopting—semantically equivalent to a Saxon genitive DP, and these DPs in English are usually assumed to be definite. However, it is known that Saxon genitives do not always trigger maximality entailments, a property typical of definite DPs. For example, Saxon genitives used as predicates in copular constructions do not seem to entail that the subject of predication is the maximal individual satisfying the predicate.

- (12) a. These [pointing left] are my dogs, and those [pointing right] are my dogs, too.  
 b. # These [pointing left] are all the dogs I own, and those [pointing right] are all the dogs I own, too.

The predicate which translates the VP ‘are my dogs’ in (12a) cannot be interpreted as the property holding of the maximal set of dogs owned by the speaker; otherwise the sentence would be semantically deviant. In this case, the first conjunct in (12a) would entail that all the dogs owned by the speaker are in the first group of animals she pointed at, an entailment which is contradicted by the second conjunct. Indeed, when this maximality entailment is overtly spelled out, as in (12b), the sentence is semantically deviant. Thus the well-formedness of (12a) is possible only if ‘my dogs’ does not trigger maximality entailments in this sentence.<sup>5</sup>

I assume that Saxon genitives in English are ambiguous between a definite and an indefinite interpretation, and that only the indefinite interpretation is licensed in the embedded position of double genitives. Interestingly, if the presence of maximality entailments is taken to be a diagnostic for the definiteness of DPs, the analysis proposed above predicts that DPs which trigger maximality entailments will be licensed in the embedded position of possessive partitives, but not in the embedded position of double genitives. This prediction seems to be correct.

Zamparelli (1995) notes that Saxon genitives which contain an overt numeral always trigger maximality entailments. For example, (13) differs from (12a) above only in that an overt numeral is introduced in the Saxon genitives in post-copular position. Whereas (12a) is well-formed, (13) is semantically deviant: both uses of the DP ‘my four dogs’ introduce maximality entailments, which are incompatible with the meaning of the whole conjunctive statement.

- (13) # These [pointing left] are my four dogs, and those [pointing right] are my four dogs, too.

Given this property of Saxon genitives containing overt numerals, the contrast in (14) is expected if English double genitives license only indefinite DPs in the position following partitive ‘of’:<sup>6</sup>

- (14) a. two of John’s four dogs  
b. \* two dogs of John’s four

The ungrammaticality of (14b) cannot be due to an alleged ungrammaticality of the NP-less DP ‘John’s four’: this DP is licensed in NP-ellipsis contexts like (15).

- (15) These [pointing left] are Mary’s three dogs, and those [pointing right] are John’s four.

The parallel contrast in (16) is expected as well. Universally-quantified DPs do not satisfy the indefiniteness restriction which holds of the embedded DP<sub>2</sub> in double genitives, but can freely appear in this embedded position in possessive partitives, which do not impose the same restriction.<sup>7</sup>

- (16) a. two of every child’s dogs  
b. \* two dogs of every child’s

The distinction postulated between possessive partitives and double genitives is thus able to account for differences in licensing particular types of DPs in the embedded position which characterize the two constructions.

The analysis I proposed makes a more general prediction concerning the semantics of double genitives. Enç (1991) argues that the *specific* interpretation of indefinite DPs arises when indefinites are interpreted as covert partitives. According to Enç specific indefinites—like indefinite DPs in general (Heim (1982))—denote novel discourse entities, but impose the additional restriction that the discourse referent that they introduce is related to an *already existing* discourse referent. In the default case the referent of a specific indefinite DP is restricted to be *part of* a discourse-familiar entity.

Within an approach to specificity along the lines of Enç (1991), the analysis of double genitives proposed here makes the prediction that these DPs should behave like non-specific indefinites. Indeed, given the indefiniteness restriction on the embedded nominal, double genitives will necessarily denote a discourse-novel entity which is part of another *discourse-novel* entity. A specific interpretation of a double genitive DP could be derived only by disregarding the discourse-semantic properties of its embedded DP. The indefiniteness restriction on DP<sub>2</sub> makes the semantics of double genitives incompatible with a specific interpretation.

I will address this semantic prediction shortly. First I would like to address a related syntactic prediction. If double genitives are necessarily non-specific it is expected that a distributional asymmetry will arise between double genitives and possessive partitives in contexts which license only specific DPs. A case in point is given by *inverted copular* constructions.

English copular constructions license inversion of the pre- and post-copular nominals only when the post-copular nominal is definite or specific:

- (17) a. John is the culprit.  
b. John is a man.  
c. John is one of the men I told you about.
- (18) a. The culprit is John.  
b. \* A man is John.  
c. One of the men I told you about is John.

The copular construction in (17a) can invert: the grammatical (18a) can receive an interpretation parallel to the interpretation of (17a), in which John is the subject of which something is predicated. The construction in (17b), instead, cannot invert: (18b) cannot be interpreted as stating that John is male, which is the most natural reading of (17b). (18b) is marginally grammatical under a specific reading of the indefinite ‘a man’ (a reading which is available, but dispreferred, for (17b), too), which is not surprising given that a copular construction in which the post-copular DP is a partitive (17c) can invert as well (18c).

Copular constructions should thus not license inversion when a double genitive is in post-copular position. This prediction seems supported by contrasts like that in (19):

- (19) a. She/Mary is one of John's friends, right?  
       ? No, one of John's friends is HIM/PETER.  
       b. She/Mary is a friend of John's, right?  
       \* No, a friend of John's is HIM/PETER.

As far as I can tell, inverted copular constructions involving possessive partitives are somewhat dispreferred by English speakers, but most speakers I consulted easily accepted the answer in (19a) as grammatical.<sup>8</sup> On the other hand, the same speakers rejected the answer in (19b). Even speakers who did not find (19a) completely well-formed perceived a clear contrast when presented with (19b), which was judged completely out. I take the ungrammaticality of the answer in (19b) to indicate that English grammar does not license copular inversion when double genitives are in the post-copular position (notice that the “uninverted” copular construction in the corresponding question is judged to be grammatical). And I take the parallelism between the data proposed in (19) and the contrast in (18a,b) to support the predictions deriving from the analysis of double genitives proposed in the previous section: double genitives have the distribution of non-specific indefinites, whereas possessive partitives behave like specific indefinites.

## 6 Consequences and loose ends

Let me address now the semantic side of the prediction deriving from the interaction of the analysis of double genitives proposed in this paper and Enç's (1991) theory of specificity. As I pointed out above, if the embedded DP in double genitives is necessarily indefinite, it is expected that these DPs will not license a specific interpretation. Testing this prediction is more difficult than testing the predictions concerning the syntactic distribution of double genitives. Speakers normally find it harder to judge whether a syntactically well-formed sentence has a certain meaning than to evaluate the grammaticality of a sentence.

I asked various English speakers to evaluate whether the double genitive DP in the second sentence of the discourse in (20) could be interpreted as denoting a subset of the group of John's dogs introduced in the first sentence.

- (20) % Some of John's dogs and some of Peter's dogs got loose in the street  
       yesterday. Unfortunately two dogs of John's were hit by a passing car.

As the diacritic in (20) shows, I got a mixed response. Some speakers allowed for the possibility of interpreting ‘two dogs of John's’ in (20) as denoting a subset of the dogs introduced in the first sentence, but other speakers judged this reading to be unavailable.

Possibly, the judgments of the speakers who accepted the specific reading in (20) can be assumed to be the result of some additional pragmatic work on the part of those speakers to make sense of the whole discourse, which—in some sense—overrides the semantic restriction imposed by the grammar of double genitives.<sup>9</sup> This assumption is not unproblematic and deciding on the availability of the specific interpretation for the double genitive DP in (20) is obviously crucial to

the characterization of the semantics of double genitives, and to the evaluation of the analysis proposed in this paper.<sup>10</sup> However—decisive empirical evidence being unavailable at the moment—I will leave this issue open for future research.

A related problem for the analysis proposed in this paper was pointed out by Gregory Ward (p.c.). The prediction that double genitives are necessarily non-specific and cannot refer to entities previously introduced in the context is problematic in the light of the grammaticality of double genitives whose  $D_1$  is a demonstrative. The double genitive ‘this dog of John’s’ can indeed be used to refer back to an entity which is already discourse-familiar in (21):

- (21) A stray dog was captured in Griffith Park which turned out to belong to John. This dog of John’s had been missing for almost six months.

I do not see the grammaticality of the double genitive in (21) as a serious problem for the analysis I propose in this paper. For one thing, in this DP ‘of John’s’ seems to act more like an appositive modifier than as a restrictive modifier of the nominal ‘dog,’ so the double genitive in (21) could constitute an altogether different construction from the DPs I have been focusing on in this work, in which the possessor behaves like a restrictive modifier of the possessum nominal. But even if the double genitive in (21) is not different from other double genitive DPs, I think that the grammaticality of (21) does not immediately argue against my analysis.

The absence of the contextual reading and the obligatory non-specificity of double genitives derive—within this analysis—from the indefiniteness restriction imposed on the embedded nominal in their partitive-like structure. Indefiniteness of  $DP_2$ , however, imposes a constraint only on the entity of which the double genitive DP denotes a part. That is, the constraint that this entity is discourse-novel can still be compatible with the discourse-familiarity of the entity denoted by the whole double genitive DP: the use of DPs like ‘this dog of John’s’ in (21) would amount to the indirect introduction of a discourse referent, which is linked to an already existing discourse referent (which denotes a part of the entity denoted by the new discourse referent).<sup>11</sup> I will however leave the analysis of examples like (21) as an issue for future research.<sup>12</sup>

A final important issue which I have not dealt with yet in this paper is the very nature of the indefiniteness restriction on the embedded nominal in double genitive DPs. In the analysis I have sketched the necessary indefiniteness of  $DP_2$  in double genitives is simply stipulated, but no argument has been proposed for why things should be so. A possibility would be to relate this restriction—and its absence in possessive partitives—to the difference in surface structure which characterizes double genitives and possessive partitives. Following in part the proposal in Zamparelli (1998), I will assume that the surface structure of double genitives is derived from a structure similar to the surface form of possessive partitives by movement of the embedded NP into the specifier of a projection headed by partitive ‘of’ (22b):<sup>13</sup>

- (22) a.  $[_{DP1} \text{ some } [_{XP} \emptyset [_{X'} \text{ of}_{\text{part}} [_{DP2} \text{ John's } [_{NP} \text{ dogs}]]]]]$   
 b.  $[_{DP1} \text{ some } [_{XP} [_{NP} \text{ dogs}]_i [_{X'} \text{ of}_{\text{part}} [_{DP2} \text{ John's } t_i]]]]]$

The restriction on the definiteness value of  $DP_2$  in (22b) can then be derived if syntactic movement of the embedded NP out of its base position is blocked when  $DP_2$  is definite. This state of facts is reminiscent of the facts discussed at length in Fiengo and Higginbotham (1981): definite DPs are *opaque* for binding of variables and anaphors, which explains the pattern of (un)grammaticality displayed in (23a) for Wh-movement out of various types of DPs, and the similar patterns relative to the availability of the wide-scope reading of a DP-internal quantifier (23b), and licensing of an anaphor within a DP (23c).

- (23) a. Who did you buy  $\left\{ \begin{array}{l} \text{(a)} \\ \text{(three)} \\ \text{(many)} \\ \text{(no)} \\ \text{(*the)} \\ \text{(*those)} \\ \text{(*each)} \\ \text{(*every)} \\ \text{(*all)} \end{array} \right\}$  picture(s) of?
- b. He chose a picture of everyone.
- c. He saw a picture of himself.

If Fiengo and Higginbotham's opacity of definite DPs blocks movement of NP out of its containing DP as well,<sup>14</sup> the indefiniteness restriction on  $DP_2$  in double genitives follows from their syntactic derivation.<sup>15</sup> I will tentatively adopt this syntactic account for the indefiniteness restriction which seems to characterize the embedded nominal in double genitives. However, I see this proposal as problematic in various respects, which I cannot address here for reasons of space.<sup>16</sup>

## 7 Summary and conclusions

Let me summarize the main points I developed in this paper. I have shown that English double genitives and possessive partitives differ in their ability to license a contextual interpretation; possessive partitives can recover the nature of the relation holding between possessor and possessum from their context of use, while this option is not available for double genitives. This semantic asymmetry cannot be accounted for within analyses like Barker's (1998) and Zamparelli's (1998), which assume that double genitives and possessive partitives are instances of the same construction. In particular, I argued that double genitives differ from possessive partitives in the discourse-semantic properties of their embedded  $DP_2$ .

The unavailability of the contextual reading for double genitives seems to indicate that the availability of a contextually-salient relation is not sufficient to guarantee that the use of an extrinsic possessive DP will be felicitous: the discourse-semantic properties of the relevant DP bear on whether it will be able to recover the contextually-salient relation or not. The availability of the contextual interpretation for possessive partitives derives from their partitive semantics: possessive partitive DPs denote a (proper) part of the entity denoted by their embedded  $DP_2$  which is definite and can thus recover a contextually-salient relation. I proposed that the

distinct semantic properties of double genitives can be accounted for under the assumption that they have a structure similar to that of possessive partitives but differ from the latter in that they can only embed an indefinite DP<sub>2</sub>. Given its discourse semantics, the indefinite DP<sub>2</sub> in double genitives cannot recover a contextually-salient relation, which makes the contextual interpretation unavailable for this class of possessive DPs.

This distinction derives some additional predictions concerning asymmetries in the distribution and interpretation of double genitives and possessive partitives which seem to be essentially correct, and which can thus be taken to provide additional support for the analysis proposed in this paper. However, many details of the analysis still need to be specified, among which the treatment of double genitives whose D<sub>1</sub> is a demonstrative (or a definite determiner), and the motivations for the indefiniteness restriction on DP<sub>2</sub> in double genitives figure prominently.

In conclusion, I would like to point out a very interesting perspective that the data and the analysis presented in this paper lay out. In the analysis of double genitives that I proposed in this paper the unavailability of the contextual interpretation and the distributional properties of this type of DP derive from properties of the embedded DP<sub>2</sub> in their partitive structure. Now, indefinite possessive DPs display the same semantic properties and syntactic distribution as English double genitives even in languages like Italian, in which indefinite possessives (24b) do not seem to be as structurally complex as possessive partitives (24c), but seem to have the same structure as definite possessives (24a) modulo the substitution of an indefinite determiner for the definite determiner.

- (24) a. *il cane di Gianni*  
           the dog of John  
           ‘John’s dog’
- b. *un cane di Gianni*  
           a dog of John  
           ‘a dog of John’s’
- c. *uno dei cani di Gianni*  
           one of the dogs of John  
           ‘one of John’s dogs’

If the analysis presented in this paper is on the right track, the structure of indefinite possessives in languages like Italian should be more complex than what their surface form would lead one to expect. But this is a topic for a different paper.

### Notes

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<sup>1</sup> Barker's (1998) and Zamparelli's (1998) proposals are very similar, both in spirit and in execution. Here I will mostly discuss Barker's analysis because it postulates a semantic isomorphism between possessive partitives and double genitives which is in many respects independent of any particular syntactic implementation of the proposal. I will argue that the asymmetry in (3) is problematic for any analysis which assumes a complete semantic parallelism between these two types of DPs, irrespective of its specific syntactic implementation. I will point out relevant aspects in which Zamparelli's proposal differs from Barker's in the notes.

<sup>2</sup> Barker (1998) argues—contra e.g. Kayne (1994)—that anti-uniqueness is a semantic rather than a syntactic phenomenon in the light of examples like (i)–(iii), which show that nominals giving rise to a (semantic) uniqueness implication cannot be used in double genitives even with an indefinite determiner (ii) or with additional modification (iii).

- i. \* I met the mother of John's.
- ii. \* I met a mother of John's.
- iii. \* I met the/a mother of John's that you pointed out last night.

Anti-uniqueness is, in Barker's system, the result of the impossibility for a definite determiner to pick out a single maximal individual in the denotation of the XP it combines with. In partitive structures (see (6) in the text) XP denotes the set of entities which are proper parts of the entity denoted by DP<sub>2</sub>. Thus XP denotes a lattice without its top and bottom elements, a structure on which the maximality operator which translates the definite determiner does not apply because this structure lacks a *unique* maximal element. Additional modification of XP can successfully filter out some elements, leaving a unique maximal element in the structure (5b,d).

<sup>3</sup> Zamparelli (1998) adopts the Copy Theory of syntactic movement and assumes that both types of DP involve movement of the NP from its lower position within DP<sub>2</sub> to the higher position above partitive 'of.' The two structures differ only at PF, according to which of the two copies of NP is overtly spelled out.

<sup>4</sup> An analysis along these lines would not immediately derive the distributional asymmetries between double genitives and possessive partitives that are discussed in section 5. Furthermore, the contrast in (i) seems to argue that the unavailability of the contextual interpretation for double genitives cannot be due in general to "blocking effects."

- i. John and Paul (two famous explorers) found themselves often in the midst of hurricanes.  
Some of John's hurricanes... / # Some hurricanes of John's...  
...killed members of his expedition.

The double genitive in (i) does not license a possession-proper interpretation, which can be argued to be more readily available than the contextual interpretation for the DP in (10b). The only option is thus that of assuming that the derivation of the contextual reading in double genitives involves some additional operation—in comparison to possessive partitives—which renders this computation too costly for the limited resources of the human language processing faculty.

<sup>5</sup> Gregory Ward (p.c.) suggests that Saxon genitives are not necessarily interpreted as definite DPs even when they occur in argument positions. According to him the sentence in (i) is true even if some of the speaker's friends are in some location other than the place where the speaker is.

- i. My friends are here.

However, other speakers I consulted reject this interpretation. For these speakers (i) necessarily entails that none of the (contextually relevant) friends of the speaker are at a different location.

<sup>6</sup> A handful of speakers I consulted seemed to accept (14b) as grammatical. Most likely they reinterpreted this DP as (i), which is grammatical.

- i. two dogs out of John's four

It can be argued, however, that (i) and (14b) are different constructions. See note 13.

<sup>7</sup> The contrast in (16) possibly involves something more. (16a) only licenses an inverse-linked reading, according to which the embedded universal quantifier scopes over the numeral ‘two.’ The unavailability of the narrow-scope interpretation of the universal quantifier is usually accounted for in terms of the *partitive constraint* (e.g. Ladusaw (1982)) which licenses only entity-denoting DPs in the embedded position of partitives. An inherently quantificational DP like ‘every child’ in (16a) must necessarily undergo quantifier raising, leaving an individual-denoting trace in its base position. Even under these assumptions, the ungrammaticality of (16b) is expected within the analysis pursued here if syntactic variables are definite, as Heim (1987) claims.

<sup>8</sup> Small caps mark contrastive focus intonation. The speakers I consulted seemed to accept inverted copular constructions more easily in the contrastive-reply context exemplified in (19).

<sup>9</sup> Intuitively, assigning a specific interpretation of the double genitive in (20), if possible at all, requires some additional work if compared to a parallel sentence containing a possessive partitive in place of the double genitive. This difference, however, could be simply due to Gricean pragmatics: the availability in the grammar of unambiguously specific DPs having the same descriptive content—i.e. possessive partitives—favors a non-specific reading of double genitives.

<sup>10</sup> The impossibility of interpreting double genitives as specific is not expected if they are “normal” indefinite DPs. Indefinites are in general able to license a specific interpretation, thus the necessary non-specificity of double genitives—if shown to hold—should be derived from some properties which distinguish double genitives from other indefinite DPs. Their partitive semantics is the relevant property in the analysis proposed in this paper. It is not clear to me how this semantic peculiarity of double genitives can be derived if the assumption that they have a partitive semantics is abandoned.

<sup>11</sup> This account predicts that (21) entails that John owns more than one dog. I am not sure whether this prediction is correct, however.

<sup>12</sup> I will defer a detailed analysis of definite double genitives to future research as well. Definite double genitives—see the italicized DP in (i)—do not license the contextual interpretation either. It is not clear to me at this point whether they can ever refer to (part of) contextually salient entities under some other interpretation.

- i. # Yesterday John and Paul were attacked by (different) groups of dogs, and in both cases the cops managed to kill one of the animals. Unfortunately, *the dog of John’s that was killed* turned out to be rabid.

<sup>13</sup> That NP movement, rather than NP ellipsis, is involved in double genitives can be argued on the basis of the data in (i)–(ii).

- i. \* I like two dogs of your dogs.
- ii. John<sub>i</sub> told that [story about his<sub>i</sub> mother] of Bill’s.

Double genitives do not license overt spell out of NP in its embedded position (i), nor do they license sloppy readings for pronouns ((ii); see Johnson (1997)), properties which characterize NP ellipsis. Incidentally, notice that the possibility of overt spell out of NP in its embedded position in DPs like (i) in note 6 shows that they constitute a construction distinct from double genitives.

<sup>14</sup> Fiengo and Higginbotham’s cases involve subextraction of a complement DP out of its containing DP. Kyle Johnson (p.c.) pointed out to me that the syntactic configuration I propose for double genitives closely resembles *split topicalization* constructions in German, in which a NP appears in sentence-initial position, stranding its determiner lower in the clause. Interestingly, definite DPs cannot appear in these constructions. The extent of the similarity between these two syntactic constructions is unclear to me at the moment.

<sup>15</sup> Under this account, DP<sub>2</sub> in possessive partitives can be definite because they do not involve movement of NP. Either Spec,XP is empty in possessive partitives, or it must be assumed, following Barker (1998), that they contain a null “semantically transparent” NP in the position preceding partitive ‘of’ (22a). This analysis is obviously not compatible with Zamparelli’s (1998)

assumption that possessive partitives involve movement of NP to Spec,XP and phonological deletion of the higher copy of NP.

<sup>16</sup> A serious problem I see with this syntactic account of the indefiniteness restriction on DP<sub>2</sub> in double genitives is that double genitives, like partitives in general, should be subject to the partitive constraint (Ladusaw (1982)), which requires that the embedded DP in partitives be an entity-denoting expression. Indefinite DPs denote entities only when they are interpreted as specific. Indeed, (i) below is grammatical only under a specific reading of ‘three students’:

- i. This book could belong to one of three students.

But if DP<sub>2</sub> in double genitives must be specific, the syntactic account sketched above cannot be correct. According to Fiengo (1987) specific DPs are as opaque as definite DPs, and thus should block extraction of NP as well. The syntactic account could possibly be maintained if Ladusaw’s partitive constraint is abandoned, as some authors (Abbott (1996), de Hoop (1997)) have proposed. I will leave this issue open here. See Storto ([to appear]) for further discussion of these problems.

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