PARTITIVES: ONE OR TWO NOUNS?

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1. Introduction

The partitive construction has been the object of study of much literature since the early years of the Generative Grammar framework. Analyses and attention to this construction have varied according to the interests of the time and also evolution of the theory, especially concerning the internal structure of nominals. Proposals differ with respect to the status and position attributed to quantifiers as well as its relationship with the noun (quantifiers as functional or lexical categories, projecting its own projection QP or not, acting as a noun modifier or as a head selecting the noun) and/or the status and role given to the prepositional element (as a Case marker or as a preposition), etc., all these issues often in relation to the quantified nominals in general.²

One line of research followed by several authors since Jackendoff (1977) and Milner (1978)³ defends the idea that partitive nominals contain two nouns (and therefore two NPs), in contrast with non-partitives —here called quantitatives—, which only contain one. This analysis of partitives is represented in (1a), where e is an empty N:

(1) a. three [e]_{N1} of the children_{N2} partitive
   b. three children_{N1} quantitative

¹ I thank the audience of the XXIX Incontro di Grammatica Generativa in Urbino for all their useful questions and comments, which definitely helped in improving this paper. All remaining errors are mine.

² See Cardinaletti & Giusti (2002) for a presentation and a brief discussion of the most representative proposals on quantitatives and partitives along the four decades of Generative Grammar studies.

Parallel to that there is another line of research that considers a single noun in the partitive structure, like in the quantitatives. The purpose of this paper is to revise the arguments presented in the literature for a partitive structure with two nouns and show that they provide no (strong) evidence for the presence of an empty noun in partitives. Even in those cases where the explanation based on an empty noun seems plausible, an alternative will be provided to show that there is no need to postulate an empty category to account for the data. Moreover a few new arguments will also be presented against analysing partitives as containing two nouns, which will led as to the conclusion that a partitive structure containing a single noun seems a better option. Finally, a proposal of analysis for partitives with a single noun will be briefly presented.

The paper is organized as follows: in section 2 the arguments for a partitive structure with two nouns are described; in section 3 they are all revised; in section 4 some new arguments against analysing partitives as containing two nouns are presented, and in section 5 an analysis of a single noun structure for partitives is offered.

2. Arguments for a partitive structure with two nouns

Different arguments have been provided in the literature in favor of postulating two Ns in partitives, which are listed below:

I. Denotation of two sets of elements in partitives, as the quantitative element quantifies a subset of the set denoted by the noun.

The example in (1a), three of the children, presupposes the existence of more than three children – at least 4 –, from which the quantifier picks up a subset of three. So, two sets are denoted: the set of all the children and the subset of three children.

II. Ambiguity of relative clauses, which can be understood as modifying the bigger set or the subset:

(2) a. Three of the children in the party, who were playing with a balloon, started fighting.
    b. Three children in the party, who were playing with a balloon, started fighting.

The sentence in (2a), in which a partitive nominal is modified by a relative clause, is ambiguous: it can mean that (i) all the children were playing with a balloon but only three of them started fighting, or (ii) only three children in the party

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were playing with a balloon and they started fighting. This is to say, the antecedent of the relative clause can be either all the children in the party (the bigger set) or three of them (the subset).

In contrast, the sentence in (2b), in which a quantitative nominal is modified by the relative clause, is unambiguous and has only reading (ii).

III. Form of the quantifier typically found in contexts of nominal ellipsis (as shown by Italian and Spanish data):

Whereas in quantitatives the form of the quantifier is *un* both in Spanish and Italian, in partitives *uno* appears, which is the same form the quantifier adopts when followed by a covert noun, as examples (3) and (4) illustrate:

Italian: (3) a. *un* libro lunghissimo ‘a very long book’
   b. *uno* [e]N lunghissimo ‘a very long one’
   c. *uno* dei tuoi libri ‘one of your books’

Spanish: (4) a. *un* problema grave ‘a serious problem’
   b. *uno* [e]N grave ‘a serious one’
   c. *uno* de tus problemas ‘one of your problems’

More examples of quantifiers showing the same contrast are: It. *algun / alguno* (‘some’), *nessun / nessuno* (‘no, none’); Sp. *algún / alguno* (‘some’), *ningún / ninguno* (‘no, none’).

A similar argument has been provided for French, where, as noted by Milner (1978), in partitives the quantifier has the form of a pronoun. The following pairs are obtained: *quelques / quelques-uns* (‘some’) and *chaque / chacun* (‘each’). The same is true in Italian, as pointed out by Cardinaletti & Giusti (2002):5

(5) a. ogni/qualche ragazzo
tvs. *ognun/qualcun ragazzo

Each/Some boy

b. *ogni/qualche di loro vs. ognuno/qualcuno di loro

Each /Some of the boys

In the same line, in French the first element can be the pronoun *celui*, or the interrogative *lequel* as in (6):6

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5 Example (5) corresponds to example (28) in Cardinaletti & Giusti (2002)’s work.
6 Also taken from Cardinaletti & Giusti (2002), which corresponds to their example (30).
IV. Cliticization by ne (in Italian, French and Catalan):

The clitic ne that appears in the quantitative construction in Italian, French and Catalan realizing the noun7 (see 7a) also appears in partitives, where it can cooccur with the material following the preposition (see 7b). This is taken to provide evidence for an empty noun in partitives, in parallel with quantitatives.

(7) a. *Ho letto un libro.* $\iff$ *Ne ho letto uno [e]_*.
    
    ‘I’ve read a book.’ NE I’ve read one (‘I’ve read one’)

b. *Ho letto uno dei tuoi libri.* $\iff$ *Ne ho letto uno (dei tuoi).*
    
    ‘I’ve read one of your books’ NE I’ve read one (of yours)

V. Possibility of an overt noun immediately following the quantifier, as shown by examples in (8):8

(8) a. *Ho letto molti libri di quelli che mi avevi consigliato.*
    
    ‘I’ve read many books of those you had recommended to me.’

b. *Ho letto molti libri dei libri della biblioteca.*
    
    ‘I’ve read many books of the books in the library.’

3. Revision of the arguments for a partitive structure with two nouns

In this section I will revise all the arguments for a partitive structure with two nouns listed in section 2.

I. With respect to the first argument, based on the interpretation of partitives, it can be pointed out that the semantics of (1a) and (1b) is actually very similar: the denotation of both is ‘three children’. The only difference is that in partitives Q quantifies over a contextualised set of elements as the definite determiner indicates.

In Ladusaw (1982: 233)”s words: “There is every reason to believe that determiners do denote the same functions in the two cases. The NP three books should denote the

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7 Not only the noun but its projection as well, which will be an N’, NP or DP depending on the analysis. The word noun appears for reasons of simplicity, given example (7a).

8 Taken from Cardinaletti & Giusti (2002), which correspond to examples (88a) and (97a), although other authors have provided similar examples for other languages.
family of sets that contain at least three books; *three of those books* should denote that family of sets which contain at least three books that are contextually indicated. The contribution of the determiner is the same in each case; the difference lies only in the set being “quantified over”.

In the same line, Kupferman (1999: 43) attributes the different interpretation of partitives and quantitatives to the presence of the definite article in the former, which contextualises the set Q quantifies over, and claims that the structural differences between the two types of nominals must be minimal: “Les différences entre les compléments des tournures partitives comprenant des quantificateurs et des tournures quantitatives se réduisent à un contraste essentiel: les premiers dénotent des ensembles fermés marqués morphologiquement par un déterminant, les seconds réfèrent à des ensembles ouverts et ne sont pas marqués par un déterminant. Cela signifierait que les différences proprement structurales seraient minimales entre les deux sortes de tournures”.

This approach to partitive interpretation is structurally realized in a language like Faroese, were partitives can be construed in two ways, as illustrated by the examples in (9) from Lockwood (1977: 114):

(9) a. *einum av hesum dreingjunum*  
   one of these children

b. *tvær ærnar*  
   two lambs

   ’two of the lambs’

(9a) is the ordinary partitive structure with Q followed by a prepositional element, a definite determiner and the noun. (9b) is an alternative structure in which Q is just followed by a noun marked for definiteness. 10 Both are examples of the partitive construction.

Finally, denoting a subset of a contextualised set doesn’t imply necessarily that the structure of partitives contains two nouns. The same effect can be obtained

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10 According to Lorenzo (1995: 226-227), (9b) does not correspond to a structure such as *the two lambs*, as that type of construction is not possible if there is another element specifying the definiteness character of the phrase (see (i) vs. (ib), from Lockwood 1977: 124).
(i) a. *tvær mínar ærnar*  
   two my lambs

b. *tvær ærnar mínar*  
   two lambsdefinite, my

   ’two of my lambs’
through other strategies, either pragmatically or discursively (see 10a) or with noun modification (see 10bc):

    b. *Three children in the class*... (= ‘Three of the children in the class group’)
    c. *Many books of my private library*... (= ‘Many of the books of my library’)

In (10) the nominals in italics have the form of quantitatives, but are interpreted very similarly to partitives: they describe the same situation as the corresponding partitives, but have a different structure.

Finally, it’s worth noticing the existence of the *among* construction, which denotes a partition as well, but differs syntactically from partitives (see V below):\(^\text{11}\)

(11) a. Three among the children in the class
    b. Many books among those I’ve got at home

II. With respect to the second argument, I claim that there is no need to postulate two nouns to account for the ambiguity of relative clauses: assuming Kayne (1994)’s DP hypothesis, in partitives there are two determiners that can license a relative clause: the upper one –I assume that nominals are all DPs– and the lower one. That’s not the case in quantitatives, which only have the upper Determiner. In (12) the structure of relative clauses in Kayne’s framework is represented: he assumes a raising analysis, according to which the relative clause is a complement of D –see (12a)– and the antecedent raises from inside the relative clause to Spec CP –see (12b).

(12) a. [\[DP D\] CP]
    b. the [CP [\[NP picture\] [that [\[IP Bill saw [e]]]]]]

(Kayne 1994: 94)

The examples in (13) show the number of Ds where a relative clause, in Kayne’s framework, could be attached:

(13) a. [\[DP three of [\[DP the children\]]\] partitive
    b. [\[DP three children\]] quantitative

Even when Kayne (1994)’s DP hypothesis is not assumed, the data can be explained in terms of NPs with no need of postulating two nouns, as defended by Belletti (1979):

(14) a. [\[NP NP CP\]
    b. *Ho letto molti dei libri che mi avevi prestato che parlano di linguistica*

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\(^{11}\) See Cardinaletti & Giusti (1992, 2002) for a description of the properties of the *among* construction and an analysis of it as a kind of partitive construction, where the preposition *among* and the material following it is optional (in contrast with ordinary partitives, with preposition *of*, where the “PP” is not an adjunct but is selected by Q).
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‘I read many of the books you had lent me which deal with linguistics.’

c. \[ [\text{NP1} \text{ molti} \text{ di} [\text{NP2} \text{ libri} \text{ che mi avevi prestato}][\text{CP} \text{ che parlano di linguistica}]] (\text{Belleti 1979: 1543}) \]

The idea is that the antecedent of the relative clause can be either the internal NP (or DP in the current theory) –the one following the preposition: NP2 in (14c)–, or the whole nominal construction –NP1 in (14c). This is possible in partitives thanks to the presence of the internal definite determiner but not quantitatives, which have no internal determiner.

III. On the third argument, it must be noticed that not always the form of the quantifier is associated to the presence or not of an empty category. Observe (15):

\begin{enumerate}
\item a. \textit{uno studente} ‘a student’
\item b. hombre \textit{alguno} vs. \textit{algún} hombre ‘some man’
\item c. un libro \textit{cualquiera} vs. \textit{cualquier} libro ‘any book’
\end{enumerate}

In Italian the form \textit{uno} can appear in front of overt nouns (see 15a) and forms such as \textit{alguno} (vs. \textit{algún}) or \textit{cualquiera} (vs. \textit{cualquier}) in Spanish cooccur with overt nouns as well, although they must be postnominal (see 15bc).

These data suggests to me a morphophonological type of account: the idea would be that the forms \textit{uno}, \textit{alguno}, \textit{cualquiera} are the basic ones and that the others are truncated forms restricted to certain positions: the prenominal position, normally adjacent to the noun although all the prenominal elements can be affected too.\footnote{12}

This can be seen as part of a more general phenomenon which affects also adjectives:\footnote{13}

\begin{enumerate}
\item a. un \textit{buon} libro vs. un libro \textit{buono} ‘a good book’
\item b. un \textit{bel} quaderno vs. un quaderno \textit{bello} ‘a beautiful exercise book’
\item c. un \textit{buen} hombre vs. un hombre \textit{bueno} ‘a good man’
\item d. un \textit{mal} día vs. un día \textit{malo} ‘a bad day’
\end{enumerate}

\footnote{12}{The prenominal position is a very unstable one in the sense that allomorphs appear in that position and not others, as has been noticed in morphophonological works (see Mascaró 1996). What the reasons are for that instability are not clear to me, but they might be related to prosodic properties. This issue needs for further investigation.}

\footnote{13}{As was pointed out to me by the audience in the Incontro, an alternative account of these examples would be in terms of movement: when the noun moves up over the adjective (to the left of it in the sequence), the adjective gets some nominal morphology that does not get if the noun stays lower. However, if that’s the case, the Italian examples in (15a) and (17) become unexplained as the presence of the final –\textit{o} in the quantifier or adjective cannot be due to N movement, but seems to be caused just by phonological reasons.}
e. el primer capítulo vs. el capítulo primero “the first chapter”
f. el tercer volumen vs. el volumen tercero “the third volume”

In Italian no truncation takes place when the noun starts with st: un buono studente, un bello spettacolo (and see also 15a).

(17) a. un buono studente ‘a good student’
b. un bello spettacolo ‘a beautiful show’

In this line of reasoning, partitives would have the basic form uno because the quantifier, even if prenominal, is no adjacent to the noun but to a preposition. In Catalan there is evidence that constituents frontier might be relevant for morphophonological phenomena:

(18) a. aquest noi ‘this boy’
b. aquest home ‘this man’
c. aquest altre noi ‘this other boy’
d. [sp Aquest] [vp il·lustra contes] ‘This one illustrates children books.’
e. [aquest [sp amb ulleres]] ‘This one with glasses’

In Catalan, the demonstrative aquest has a silent s when it precedes nouns beginning with a consonant, but it is pronounced if the following noun begins with a vowel (see 18a vs. 18b) or also in a case like (18c). This phenomenon does not apply if the next word is a verb (see 18c) or, even inside the DP, if the adjacent word is a preposition (see 18d). This seems to suggest that what matters here is the constituent border: it does not apply between DP and VP or even inside the DP through a PP frontier.

IV. On the fourth argument, it is important to note that the clitic ne is licensed in partitives only if non-overt N follows the preposition. This N can only be overt if dislocated:

(19) a. *Ne ho letto uno dei tuoi libri.
b. Ne ho letto uno, dei tuoi libri.
c. Dei tuoi libri, ne ho letto uno.

Cardinaletti & Giusti (1992: footnote 11, 2002) regard the ungrammaticality of examples like (18a) as a violation of principle C of binding theory, since the pronominal ne binds an R-expression (i.e. i tuoi libri).14 This is not the case in (19) since quelli – according to these authors – is a pronoun, not an R-expression.15

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14 Cardinaletti & Giusti both 1992 and 2002 consider partitives to be QPs where Q selects a DP and a PP. The structure proposed in 1992 is in (ia) and the current structure is in (ib): (i)

a. \[Q P [Q ' (Q ' Q DP ] PP ]\]

b. \[Q PP [Q ' Q DP ]\]

(here we disregard the functional projections above QP in 2002 structure –FP and AgrP– as
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(20) Ne ho letti molti di quelli (che mi hai consigliato).
[I] NE have read many of those that [you] to-me have advised
(Cardinaletti & Giusti 2002: ex. 127a)

However, it does not seem to work very well with personal pronouns, at least in Catalan, and one wonder why as nothing should prevent it given the explanation in terms of binding:16

(21) a. *N’han seleccionat moltes d’elles.
EN have\textsubscript{3p} selected many\textsubscript{f} of them\textsubscript{f}
‘They have selected many of them.’
b. *En visitaré dos de vosaltres.
EN visit\textsubscript{1sFut} two of you
‘I’ll visit two of you.’

A simpler alternative explanation would be to defend the idea that partitives pattern with quantitatives: they have a single noun structure. The impossibility of ne cooccurring with an overt noun or a pronoun following the prepositional element follows then naturally.

(22) a. *Ne ho letto un libro.
b. Ne ho letto uno.

V. With respect to the fith argument, I claim that examples with an overt noun following Q are not true partitives.

\textsuperscript{15} Cardinaletti & Giusti (1992: 131) provide a similar example:
(talking of books)
Ne\textsubscript{5} ho letti molti\textsubscript{f} di quelli che mi hai dato tu
[I] NE have read many of those to-me have given you

\textsuperscript{16} Cardinaletti & Giusti (2002) include personal pronouns among the possibilities and give the following example (= to its example 127b):
Ne ho visti molti di loro.
[I] NE have seen many of them
But it seems that the Italian corresponding examples of (21) would not work very well, parallel to Catalan (Giuliana Giusti, p.c.).
Unlike partitives, examples with an overt noun following the quantifier allow Q or the first N to be modified (see 23ab vs. 24ab) and license types of Q impossible in true partitives (see 23c vs. 24c).

(23) a. Ja he llegit uns deu llibres dels que m’havies recomanat.
   ‘I read already about ten books of those you had recommended to me.’

   b. He llegit molts llibres interessants dels que m’havies recomanat.
   ‘I read many interesting books of those you had recommended to me.’

   c. He llegit un munt de llibres dels que m’havies recomanat.
   ‘I read a lot of books of those you had recommended to me.’

(24) a. * Ja he llegit uns deu llibres dels que m’havies recomanat.

   b. * He llegit molts interessants dels llibres que m’havies recomanat.

   c. * He llegit un munt dels llibres que m’havies recomanat.

The PPs in (23) are a kind of predication of the noun, which can be paraphrased by a relative clause with be:

(25) Ja he llegit uns deu llibres que són dels que m’havies recomanat.
   ‘I read about ten books which are of those you had recommended to me (which belong to that group of books).’

The PP modifying an overt N of the sort of (23) often gets a kind reading, although in examples like (23) that is not possible due to the past tense and the first and second person pronouns. However, if we change it to allow a generic reading, then the kind interpretation easily appears:

(26) a. Ja he llegit uns deu llibres dels que es recomanen.
   ‘I read about ten books of those that are recommended.’

   b. Ja he llegit uns deu llibres dels recomanats.
   ‘I read about ten books of those recommended.’

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See Cardinaletti & Giusti (2002: § 3.1) for a discussion on how to analyse this PP and their arguments for not considering it as a complement of N (because it is predicative) nor as an adjunct—an optional partitive PP such as among—(because it is more restrictive). They claim that the optional partitive PP (with preposition tra/fra ‘among’ in Italian) can be introduced by di (‘of’) only if fronted in Italian.

A possibility of analysis of the examples with an overt N following Q would be to consider them as an instantiation of the among construction and extent the cases where this “optional partitive” can contain the preposition di to the position adjacent to the noun, but only in quantitatives. It is not clear though why universal Q or demonstratives should reject the optional PP with di but admit the PP with among. Maybe it has to do with the difference in meaning between of and among. We leave this question open.
4. Some new arguments

The main argument against proposing two nouns in the partitive structure has to do with the fact that partitives do not seem to behave syntactically as having an empty noun. This can be seen in three points:

1. Impossible modification of N₁(as seen in 24b), contrary to what would be expected. This is also pointed out by Kupferman (1999: 50), who illustrates it in French:

   (27) *Trois grandes de ces fenêtres étaient sales.
   three big of these windows were dirty
   This contrasts with the behaviour of quantitatives, which allow noun modification when the noun is non-overt:
   (talking about films)
   (28) a. Ayer vi una [eN] muy interesante.
       ‘Yesterday I saw a very interesting one.’
   b. *Ayer vi una muy interesante de las películas que me habías recomendado.
       yesterday (I) saw a very interesting of the films that (you) to-me had recommended

2. Impossible realisation (or even interpretation) of N₁ when partitives contain pronouns:

   (29) a. Ayer vi una [eN] de terrors.
       ‘Yesterday I saw a horror one.’
   b. *Ayer vi una de terror de las películas que me habías recomendado.
       yesterday (I) saw a of horror of the films that (you) to-me had recommended

In partitives denoting parts of wholes (even in cases where the whole is an amount of individuals and the part corresponds to a subset of it like in (31b)), it seems harder to me to justify an empty noun in the structure. We would expect them to have the same structure attributed to partitives denoting subsets of sets, but in the literature that proposes a partive structure with two nouns they are not discussed. Maybe they are considered to be of a different type and have a different structure?

   (30) a. uno [e] di noi pensa que...
       (Cardinaletti & Giusti 2002, ex. 105b)
   b. *uno ragazzo di noi pensa que...

   In partitives denoting parts of wholes (even in cases where the whole is an amount of individuals and the part corresponds to a subset of it like in (31b)), it seems harder to me to justify an empty noun in the structure. We would expect them to have the same structure attributed to partitives denoting subsets of sets, but in the literature that proposes a partive structure with two nouns they are not discussed. Maybe they are considered to be of a different type and have a different structure?

   (31) a. la meitat de la farina
       ‘half of the floor’
   b. un terç dels estudiants
       ‘one third of the students’
c. **una part dels nens**
   ‘part of the children’

3. Impossibility of pronouns replacing Q + N₁, contrary to what would be expected:

(32) a. *algú dels treballadors* vs. **alguns dels treballadors** partitives
    someone of-the employees some of-the employees

b. **algú**
    algun treballador quantitatives

Interestingly, the *among* construction always allows the first noun to be realized or modified, or admits a pronoun replacing Q + N₁. This can be easily checked if in the previous examples of (or the corresponding *de*, *di*) is replaced by *among* (or the corresponding *entre*, *tra/fra*). This leads us to the conclusion that the *among* construction contains two nouns and it is different from the partitive construction, which only contain one.

Finally, one last remark on the preference from a theoretical point of view of a proposal of a single noun in partitives: it explains automatically the ungrammatical examples in (19, 27-32), and it is much simpler (i.e. there is no need for an extra condition to ensure that DP and PP are lexically non-distinct).

5. A proposal of partitive structure with a single noun

In this section I briefly present my proposal of analysis of partitives. I propose that the quantitative element both in the partitive construction and in the quantitative construction is generated as a predicate in a lower position of the tree, the subject of which is the noun. Q subsequently raises to a higher position in the tree and acts as a determiner. I assume a version of the DP hypothesis as in Kayne (1994), according to which D selects a D/PP projection which dominates a predication and one of the components of that predication raises to Spec D/PP. This is represented in (33b):

(33) a. **mols dels llibres**
    many (of the) books

b. [
   [D [D/PP [D/Pº [FP dels llibres [Pº Fº [QP molts]]]]]]

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18 It does not seem to me that the non-distinctness requirement proposed by Cardinaletti & Giusti (1992,2002) could explain the ungrammaticality of examples 27-32. I wonder how the contrast between these examples and the grammatical ones with *among* would be explained in their theory.

19 See Martí i Girbau (1999) for more details.
The subject of the quantifier predication is a DP in partitives whereas it is an NP in quantitatives.

In my proposal, there is no “room” for a second noun in the structure and I hope to have shown that there is no need to postulate it to account for the data. How exactly data is explained depends on the analysis adopted, but what I aimed to do here was a reflection in general terms on the need or not of a two noun structure for partitives.

6. Conclusion

This paper focussed on one aspect related to the analysis of partitives: the question if the partitive structure contains one or two nouns. The arguments presented in the literature for a two noun structure were revised and it was concluded that they provide no (strong) evidence for the presence of an empty noun in the structure. It was also claimed that a partitive structure with a single noun seems preferable both from an empirical and theoretical point of view.

References:


