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Partitivity and the Spanish Plural Indefinite *unos*

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Thanks to Bert Le Bruyn for reading my thesis and helping with some references and advice. It was Bert's doctoral dissertation what inspired me to work on partitivity and the plural indefinite *unos*. But long before I began to write my thesis, I realised he is a great role model to follow, not only as a semanticist but also as a teacher and advisor.

Contents

Introduction

The analysis of the semantic properties of indefinites has encouraged an explosion of empirical and cross-linguistic studies, all of them aimed at developing a more comprehensive theory of the noun phrase at the semantics-pragmatics interface. In this context, the study of the contrasting properties of Spanish indefinites has become an important part of Hispanic semantics and Romance linguistics in general. In line with this trend, the present thesis investigates the behaviour of the Spanish plural indefinite *unos* ('a-PL') in the context of partitive noun phrases from a semantic perspective.

The focus of the present work is the analysis of full partitive constructions, which are typically expressed by determiner phrases such as [DP of DP]. More specifically, I will concentrate on partitive noun phrases headed by the indefinite *unos* such as *unos de los libros*, 'some of the books'. Many of the properties of the indefinite *unos* have been addressed in the literature, but only recently, attention has been drawn to partitivity in more detail (Le Bruyn, 2008, 2010). A particular characteristic about *unos* is that it seems to be constrained in many contexts where the other Spanish indefinite *algunos*, 'some-PL', is usually unrestricted. Le Bruyn (2010) carried out corpus research on some of these contexts, namely the subject position of individual-level predicates, noun ellipsis, and downstairs D position of full partitives. After the corresponding theoretical overview, I present my own results from a corpus study, using a different online data source but also restricted to *unos*. These results confirmed Le Bruyn's corpus study, not only about the lack of occurrences of *unos* in the first two contexts, but also for the fact that there is a special set of exceptional cases on the third environment. Following an observation made by Le Bruyn (2010), I proposed a detailed analysis of the type of structures that seem to allow *unos* as head determiner, namely full partitive DPs with downstairs superlatives: e.g., *unos de los mejores jugadores de la historia*, 'some of the best players in history'. The proposal seeks to provide a formal background to analyse the behaviour of *unos* in such contexts.

The organisation of the thesis is as follows. In section 1, I introduce the relevant theoretical notions that delimit the scope of the discussion.

Section 2 presents the results of a corpus-based report of the occurrences of *unos* in the *Corpus del Español Actual* (CEA) (Subirats and Ortega, 2012), included here to support this investigation with synchronic empirical evidence. Section 3 discusses the results of the corpus data research on the basis of the precedent literature, and includes a formal analysis of partitive DPs with downstairs superlatives. Finally, section 4 summarises the discussion and provides some observations about possible lines and topics for further research.

1 Theoretical background

1.1 The traditional grammatical approach

The basic approach of traditional studies by philologists and experts on Spanish grammar has discussed *unos*, 'a-PL'[1], as a plural indefinite article from diachronic and synchronic points of view, and it has identified three instances of it (de Nebrija, 1992 [1492]; Pozas Loyo, 2010). The first one is a form derived from Latin, and it is the article *unos* that precedes *pluralia tantum*, as in the NP *unas tijeras*, 'some scissors'. The second *unos* appears in "true plurals" contexts where plurality of indefinite NPs is required. It is the one that introduces new discourse referents and lacks quantificational interpretation, so it is basically the plural form of the singular indefinite article *un* (Pozas Loyo, 2010). The third type of *unos* is clearly different from the previous two: it does not precede *pluralia tantum* and it does not serve the purpose of introducing discourse referents. This instance of *unos* forms quantificational NPs by preceding cardinal numerals as in *unas veinte personas*, 'around twenty people', or adjectival/pronominal expressions as in *unos pocos/cuantos amigos*, 'some few friends' (Real Academia Española, 2009).

The observations made from the perspective of the grammarian are mainly descriptive and limited to the syntactic distribution of the indefinites. Sarmiento and Esparza (1993) describe the plural *unos* as the determiner that introduces discourse referents and actualizes two or more entities, except for the case of *pluralia tantum* aforementioned. The examples of these authors in (1) show that the contribution of *unos* typically includes the introduction of a noun as discourse referent (1a), the marking of indefinite (non exact) plurality (1b), a special case of partitive reference (1c), an expression of reduced quantity (1d), an emphatic value (1e), and an approximate value (1f):

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[1]It should be noted that in the examples used here, the gender distinction *unos/unas* is not relevant for semantic purposes, but of course it will be significant when searching on corpus data. Moreover, the gloss a-PL is just a convention from the literature to distinguish *unos* from *algunos*, some-PL. I will use UNOS in small capitals as the gloss for this indefinite, and I will be specific only if the contrast with *algunos* requires more precise distinctions.

(1) a. *Llegaron   unos libros, pero no los   miré.*
       arrive-PST UNOS books but not them looked
       'Some books arrived but I didn't look at them.'

   b. *Pasaron   unos señores que preguntaban por ti.*
       pass-PST UNOS men   that asked   for you
       'Some men passed asking about you.'

   c. *Por favor, sírveme   unas patatas.*
       please   serve.me UNAS patatas
       'Please serve me some potatos.'

   d. *Pasaremos unos días en la   playa.*
       pass-FUT UNOS days in the beach
       'We will spend some days at the beach.'

   e. *Te   lo he   dicho muchas veces: son unos vagos.*
       you it have said many   times are UNOS idler
       'I have told you many times: they are very lazy.'

   f. *Solo he   gastado unos dos mil   euros.*
       only have spent   UNOS two thousand euros
       'I have only spent around two thousand euros.'

As it will be clear in the next section, these uses of *unos* are covered by the generalisations of the formal approach. Le Bruyn (2009, 2010) has recently reviewed diachronic evidence suggesting that *unos* is in fact the Spanish plural indefinite article. The diachronic studies seem to conclude that *unos* developed as the plural counterpart of the numeral one *un*, but its evolution as an article was parallel to that of the singular indefinite *un*. Moreover, Le Bruyn's claims are related to the idea that *unos* lacks partitive readings, an issue that will be discussed in more detail in the rest of this thesis.

1.2   The linguistic semantics approach

The second view on the plural *unos* analyses the semantic properties of indefinite NPs from a more formal perspective. The indefinite *unos* became relevant in Hispanic linguistics with the work of Villalta (1994), who compared it with the other Spanish indefinite, namely *algunos* ('some-PL'). Thereafter, this comparison trend was followed by some other important analyses of the semantics this determiner. In general, however, the literature dealing with *unos* is not extensive: Villalta (1994), Laca and Tasmowski (1996) Gutiérrez-Rexach (1999, 2001, 2003b, 2010), Alonso-Ovalle and Menéndez-Benito (2002), López-Palma (2006, 2007), Martí (2008, 2009), Le Bruyn (2009, 2010), and Pozas Loyo (2010) are the main references.

As it has been commonly mentioned in the literature, the plural indefinite determiners *unos* and *algunos* in example (2) seem to be truth-conditionally equivalent:

(2)   *Juan compró   unos/algunos   libros*
      John buy-PST a-PL/some-PL books
      'John bought some books.'

However, there are other many contexts in which these determiners appear exhibiting different properties. Thus, it is necessary to provide a more detailed account of the semantic properties of *unos*. Let us have a closer look at those contexts.

1.2.1   Existential-*there* and intensional contexts

The most basic property of *unos* that has been discussed in the literature is its existential character. Spanish *unos* is a weak determiner in the sense of Milsark (1977) and Barwise and Cooper (1981), which means that it is allowed in existential-*there* sentences such as example (3) from Villalta (1994). Note that this property is also shared by *algunos*. In general, we would say that the two plural indefinite determiners in Spanish are licensed in existential contexts simply because they quantify over a non-empty set. Gutiérrez-Rexach (2001) formalised this intuition for the Spanish indefinites using the concept of 'intersective function' from Keenan (1987, 1996). Gutiérrez-Rexach cites Keenan's generalization explaining that the

cardinality of the intersection of the sets A and B is greater than or equal to two, as shown in (4):

(3) *Hay unos/algunos estudiantes en el jardín*
      'There are some students in the garden.'   (Villalta, 1994)

(4) For all sets $A, B, \geq E$,
      UNOS$(A)(B) = 1$ iff $|A \cap B| \geq 2$
      ALGUNOS$(A)(B) = 1$ iff $|A \cap B| \geq 2$

Villalta (1994) also noted that *unos* and *algunos* have the same behaviour when they form indefinite noun phrases in the object position of intensional verbs. In (5) below, both determiners allow for a scope ambiguity with regard to the intensional context created by the verb *querer*. Although not mentioned by Villalta, the same situation arises when the context is determined by modal verbs, as in (6):

(5) *Juan quería contratar unas/algunas secretarias.*
      'Juan wanted to hire some secretaries.'
      a. There are some specific secretaries that Juan wants to hire.
          (UNAS/ALGUNAS > QUERER). Wide scope reading.
      b. Juan wants to hire a small number of secretaries.
          (QUERER > UNAS/ALGUNAS). Narrow scope reading.

(6) *Juan podría/debería contratar unas/algunas secretarias.*
      'Juan could/should hire some secretaries.'

1.2.2 Individual-level predicates

Another property of *unos* explained by means of a contrast with *algunos* is that the former cannot appear in the subject position of individual-level predicates in the sense of Carlson (1977), as in example (7). Villalta (1994) first noted this problem, and later Gutiérrez-Rexach (2001, 2003b) offered a more extensive account. Note that although it cannot appear in individual-level predicates, *unos* is licensed in the subject position of stage-level predicates referring to plural individuals, as in (8):

(7) *En esta clase, *unos/algunos atletas son inteligentes*
      'In this class, some children are intelligent.'   (Villalta, 1994)

(8) *Unos gatos duermen en el   jardín*
UNOS cats sleep   in the garden
'A group of cats sleep in the garden.'   (López-Palma, 2006)
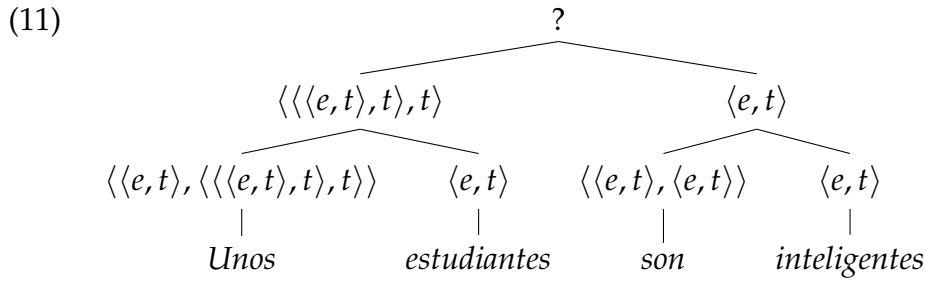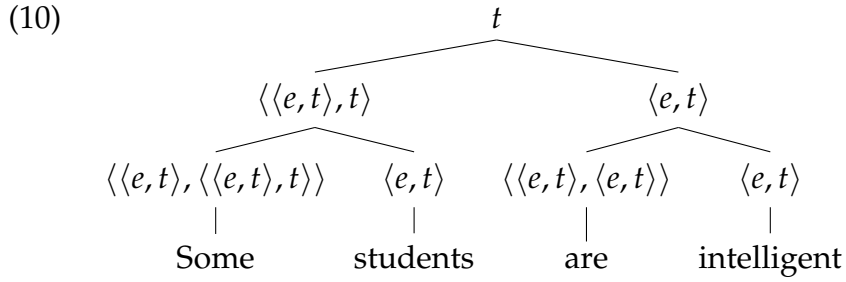
Villalta (1994) relates the ungrammaticality of (7) with the kind of entities that make part of the extension of the predicate. Individual-level predicates only select individual arguments, and given that *unos* has a clear group-like behaviour, it would be incompatible with such predicates (p. 8).

The group nature of *unos* was also discussed by Gutiérrez-Rexach (2001). Following previous studies, Gutiérrez-Rexach explains some semantic differences between *unos* and *algunos* by relating the individual-level/stage-level (Carlson, 1977), weak/strong (Milsark, 1977), and thetic/categorical (Ladusaw, 1994) distinctions within a Discourse Representation Theory framework. Leaving aside the details of this complex proposal, an important conclusion in Gutiérrez-Rexach's work is that *unos* is a "collectivizer" indefinite, a quantificational determiner that forces group/collective predication.

Gutiérrez-Rexach (1999, 2003b, 2010) has explained that the incompatibility of *unos N* with individual-level predicates is the result of a type mismatch. The argument is that *unos* is not a regular determiner defined as a function from properties to functions from properties to truth values, which would correspond to a type $\langle\langle e,t\rangle, \langle\langle e,t\rangle, t\rangle\rangle$). Instead, *unos* would be a function from properties to functions from higher order properties, as its denotation taken from Gutiérrez-Rexach (1999) shows:

(9) $[\![unos]\!] = \lambda P_{\langle\langle e,t\rangle\rangle}.\lambda Q_{\langle\langle e,t\rangle, t\rangle}.\exists x \subseteq P[|x| > 1 \wedge Q(P)]$

A DP such as *algunos N* has the type $\langle\langle e,t\rangle, t\rangle$ by normal function application, and therefore, it can combine with an $\langle e,t\rangle$ predicate. In contrast, *unos N* would be of type $\langle\langle\langle e,t\rangle, t\rangle, t\rangle$ and would not be able to combine with such predicates. To illustrate this, the contrast between the semantic type representations of "some" (which behaves like *algunos*) and *unos* is presented below:

8

(10)

$$
\begin{array}{c}
t \\
\end{array}
$$

```
                            t
              ┌─────────────┴─────────────┐
        ⟨⟨e,t⟩,t⟩                      ⟨e,t⟩
      ┌─────┴─────┐                ┌─────┴─────┐
⟨⟨e,t⟩,⟨⟨e,t⟩,t⟩⟩  ⟨e,t⟩    ⟨⟨e,t⟩,⟨e,t⟩⟩   ⟨e,t⟩
      │            │             │           │
    Some       students         are      intelligent
```

(11)

```
                            ?
              ┌─────────────┴─────────────┐
       ⟨⟨⟨e,t⟩,t⟩,t⟩                    ⟨e,t⟩
      ┌─────┴─────┐                ┌─────┴─────┐
⟨⟨e,t⟩,⟨⟨⟨e,t⟩,t⟩,t⟩⟩  ⟨e,t⟩  ⟨⟨e,t⟩,⟨e,t⟩⟩  ⟨e,t⟩
      │              │           │           │
    Unos        estudiantes     son      inteligentes
```

Since the semantic type of *algunos* is equivalent to those of standard quantifiers such as "some", "every" and "no", namely $\langle\langle e,t\rangle,\langle\langle e,t\rangle,t\rangle\rangle$, individual-level predicates with it do not not result in a type clash.

Martí (2009) and Le Bruyn (2010) have used a different denotation, and it seems that they would not agree with the high-order property function embedded in Gutiérrez-Rexach's proposal. The semantics for *unos N* in Le Bruyn (2010) is presented in (12):

(12) $[\![unos\ N]\!] = \lambda Q.\exists y[\mathrm{plural}(y) \wedge N(y) \wedge Q(y)]$

These alternatives are revisited in section 3.3, where a more detailed discussion of the semantic types of *unos* is presented.

1.2.3 Distributives, reciprocals and reflexives

Another restriction on *unos* noticed by Villalta (1994) is that, in general, this determiner does not license distributive readings. The examples from Villalta below illustrate the problem with distributive and collective interpretations in terms of the interaction between quantificational NPs:

(13) Three men lifted a piano.

(14) a. *Durante la mudanza, unos hombres levantaron una mesa.*

     b. *Durante la mudanza, algunos hombres levantaron una mesa.*
       'During the move, a group of/some men lifted a table.'

(15)   a. *Unos hombres compraron un billete de lotería.*

       b. *Algunos hombres compraron un billete de lotería.*
          'A group of/some men bought a lottery ticket.'

(16) # *Unos/algunos hombres se pusieron una camisa.*
      'A group of men put on a shirt.'

Sentence (13) can be interpreted in two ways, either expressing that there is one piano which all men lifted together, or as asserting that each men lifted a piano. In the same vein, the presence of *algunos* in (14b) triggers an ambiguity between distributive and collective readings (several men and one or several tables). In contrast, *unos* is said to allow only collective interpretations, so in (14a) there can be only one lottery ticket, but not one ticket for each man, as it is possible for (14b). The contrast between *unos* and *algunos* in (14) and (15) indicates that the two determiners differ in regard to distributive predicates. While *algunos* allows readings that predicate about individuals and groups, *unos* blocks the individual readings and only allows the collective interpretations. As for the contrast in (16), Villalta claims that the problem with *unos* is that it conveys the pragmatically odd idea that several men were putting on a single shirt

For Villalta, the fact that *unos* has group-behaviour that only licenses collective readings means that it cannot involve quantification over individuals (p. 7). In this same respect, López-Palma (2006) claims that *unos N* cannot select distributive arguments because the quantificational indefiniteness of *unos* prevents the sentence from identifying individual members or "atoms", which are perceived "as a blurred bunch of entities involved in a common event." (p. 283).

Similar reasons have been mentioned to explain that *unos* is incompatible with reflexives (17a) or reciprocals (17b):

(17)   a. *#Unas/algunas chicas se miraron a sí mismas/la una a la otra.*
       'Some girls looked at themselves/each other.'

b. *#Unas/algunas chicas se miraron a sí mismas/la una a la otra.*
   'Some girls looked at themselves/each other.'

According to Gutiérrez-Rexach (2001), since *unos* is a plural group indefinite, it cannot combine with reflexives and reciprocals because the semantic interpretation involves access to the elements or atoms of the group (p. 8).

1.2.4 Discourse referentiality

The restrictions on distributivity and no reciprocity have a common background in the idea that *unos* seems to introduce a group discourse referent or variable (Villalta, 1994; Laca, 1996; Gutiérrez-Rexach, 2001; López-Palma, 2007; Pozas Loyo, 2010). In this way, *unos* is associated with discourse referentiality as discussed by Gutiérrez-Rexach (2001, 2003b) and Le Bruyn (2010). Gutiérrez-Rexach claims that Spanish *unos* is subject to a 'no linking' constraint in the sense that it is interpreted as a context independent determiner that cannot be linked to a previously introduced discourse referent. In sentence (18) from Gutiérrez-Rexach (1999, 2001), the indefinite NP with *unos* seems to lack the partitive interpretation that *algunos* has, and therefore, it seems that it cannot refer to a set of books that has already been mentioned:

(18) *Los libros de matemáticas están en el cajón, los de física debajo de la cama y hay ??unos?algunos de lingüística sobre la mesa.*
   'Math textbooks are in the drawer, the ones on physics are under the bed, and there are some linguistic ones on the table.'

Le Bruyn (2010) discusses this example in terms of noun ellipsis. The idea is that this type of ellipsis is acceptable only when the elided noun refers to a part of contextually salient set. Given that *unos* is a determiner that lacks partitive content, its presence would be not allowed in such elision cases. In section 1.3, I provide a review of the topic of partitivity in more detail, and particularly in section 1.3.4, I will return to examples of noun ellipsis such as (18).

1.2.5 Scope below negation

It is important to mention the interaction between *unos* and the scope of negation. Villalta (1994), Laca (1996) and Gutiérrez-Rexach (2001) have

noted that, as weak determiners, *unos* and *algunos* have similarities in intensional and modal contexts, as observed above in examples (5) and (6). However, with regard to negation, there are clear differences between *unos* and *algunos*. Sentences like those in (19) from Gutiérrez-Rexach (2001) show that the scopal dependencies between the negative operator and the bare plural, *unos* and *algunos* are asymmetric. Gutiérrez-Rexach explains that while bare plurals have only narrow scope with respect to negation, *unos* and *algunos* are ambiguous between wide and narrow scope readings, and that the narrow scope interpretation of *unos* in (19b) is only triggered by focus (which is not the case of *algunos*):

(19) a. *A la   reunión   no   asistieron profesores.*
          to the meeting not attend   professors
          'No professor attended the meeting.'
          (NO > BP)

      b. *A la   reunión   no   asistieron unos profesores.*
          to the meeting not attend   a-PL professors
          'The meeting was not attended by some professors.'
          (UNOS > NO; ?NO > UNOS)

      c. *A la   reunión   no   asistieron algunos   profesores.*
          to the meeting not attend   some-PL professors
          'The meeting was not attended by some professors.'
          (ALGUNOS > NO; NO > ALGUNOS)

The contrasts in (19) show the differences in scope between bare plurals, *unos* and *algunos* below negation. For Gutiérrez-Rexach (2001) the narrow scope reading of *unos* in (19b) is doubtful, but for Martí (2008) is wrong. She claims that *unos* cannot take narrow scope because the only possible reading is the specific one in which there must be a specific group of professors that did not comet the meeting (p. 10).

Laca and Tasmowski (1996) mentioned that it is possible to understand the contrast between *unos* and *algunos* with respect to negation if we consider that *algunos* has a lexicalised form of negation, *ningunos*, while *unos* does not have a negative counterpart. Although the authors do not provide more details about this idea, they add that, under the scope of negation, *algunos N* suggests the existence of a "complementary set". Consider the contrast below:

(20) a. *No vi algunos errores.*
          'I did not see certain mistakes.'

      b. *No vi unos errores.*
          'I did not see some mistakes.'

      c. *Vi algunos errores.*
          'I saw certain mistakes.'   (Laca and Tasmowski, 1996)

The fact that *algunos* is interpreted as having he meaning of 'certain'
suggests that there is a partitive reading for *algunos* that implies the set of
mistakes is divided into those the speaker saw and those she or he did not.
This partitive implicature is absent from the negative contexts with *unos
N*, as (20b) shows, where it is interpreted as referring to and specific set of
mistakes the speaker did not see. The generalization is that *unos N* and
algunos N "escape" the scope of negation, the former due to the property
of specificity, and the latter due to partitivity (Laca and Tasmowski, 1996,
p. 121).

1.2.6   Prosodic and contrastive focus

The role of focus is an important part of the description of the semantics of
unos, since it has been noticed that in contexts of prosodic stress (21) and
contrastive focus with *otros*, 'others' (22), *unos* seems to void all the restric-
tions mentioned up to now. It is in such contexts that *unos* encodes the
properties that *algunos* normally shows (Villalta, 1994; Gutiérrez-Rexach,
2001, 2003b):

(21) *UNOS estudiantes se   lavaron los dientes.*
       UNOS students   REFL wash   the teeth
       'Some students washed their teeth.'

(22) *Unos estudiantes son inteligentes, otros   no.*
       UNOS students   are intelligent   others not
       'Some students are intelligent, other are not.'

Contrastive focus with *otros* seems to affect the indefinite NP, allowing
individual-level predicates. There are several explanations for the distinct
behaviour of *unos* in the presence of *otros*. Consider examples (23) and (24)
from López-Palma (2006):

(23) *Unos gatos son negros, otros son blancos.*
UNOS cats are black others are wight

(24) **Unos gatos son negros.*
UNOS cats are black

In sentences such as these, *unos* is allowed in the subject position of the individual-level predicate due to the presence of the contrasting element *otros*. For Villalta (1994), the interaction between *unos* and *otros* forces a partitive interpretation, since the reference set is divided into two subsets: *unos N* and *otros N* (p. 11). Thus, quantification over each subset is possible and individual-level predicates are licensed, as well as distributive and reflexive predicates. In a similar way, Gutiérrez-Rexach (2001) would claim that (23) is acceptable but not (24). The reason is that only in (23), *unos N* refers to a presupposed set by contributing a discourse referent and a duplex condition in a Discourse Representation Structure (p. 144. See also Kamp and Reyle (1993) on quantifiers and the duplex condition). López-Palma (2006) describes the behaviour of *unos... otros* in slightly different terms. This author claims that the infelicitous *unos* in (23) does not establish a comparison between the group denoted by *unos DP* and another group of the same class. Following Krifka (1999), López-Palma holds that *unos N* is not a simple topic but a contrastive topic, which "presupposes a class of alternatives that the speaker wants to talk about" (p. 263). Thus, in a sentence such as (23), the property 'color' is used to compare both groups of cats.

Contrastive focus also suggests that, as Martí (2008) points out, *unos... otros* has properties different form *unos* and *algunos*. Even if the behaviour of *unos... otros* in (23) patterns with *algunos... otros*, it is clear that both determiners have different characteristics in relation to partitivity. This author, however, has different approaches to the semantics of *algunos*. In Martí (2007) she presents a choice function explanation, while in Martí (2008, 2009) there is a compositional, word-level analysis. The details of those analysis are out of the scope of this work, but it is interesting to notice a recent trend in semantics that deals with word-internal compositionality (Martí, 2009; Szabolcsi, 2010; Szabolcsi et al., to appear).[2]

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[2]In fact, the analysis of superlatives from Heim (2004) presented in section 3 is mentioned by Szabolcsi et al. (to appear) as an example of this sort of semantics. See also

In sum, we can say that the relevant properties of the unstressed plural indefinite *unos* are its presence in existential contexts, its incompatibility with subject position of individual-level predicates, distributive and reciprocal predicates, the noun ellipsis or 'no linking' constraint, and its wide scope behaviour with regard to negation. For Villalta (1994), an NP such as *unos N* has typically a group reading. For Gutiérrez-Rexach (2001), *unos N* introduces a group discourse referent. In the section devoted to the corpus study, examples from real data will be presented in the light of the properties aforementioned. In addition, since partitivity will be the core issue to be discussed, I now present a brief overview of the linguistic treatment of partitive constructions.

1.3 The study of partitivity

Partitivity defines a broad and varied area of study, having been analysed, at least since the 1970's, from formal syntactic, semantic and pragmatic perspectives. Works on syntax of partitive noun phrases such as Jackendoff (1977), and the semantic approach by Barwise and Cooper (1981), are among the first modern studies on partitivity. The importance and variety of modes of presentation of the *part-of* relation have been addressed within linguistics under the more general topic of quantification in natural language. In this sense, it is common to see works on partitives in relation to topics such as quantifiers, determiners, bare NPs, indefinites, existentials, among others (Hoeksema, 1996a).

The literature offers different views on the concept of partitivity and the kind of structures that are considered partitives. Semantic perspectives include the works of Ladusaw (1982), Hoeksema (1984, 1996a,b), Zamparelli (1998), de Hoop (1997, 2003), among others, to which the reader is referred for more details. There are several classifications of partitives in the literature. According to their structure, there are full or regular partitives (25a) and bare partitives (25b) (Hoeksema, 1996a), as well as pseudopartitives (25c), faded partitives (25d), and constructions with morphological partitive case (25e) (de Hoop, 2003), as the examples below show:

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my suggestion for further research in section 4.

(25) a. *Some/none/three of the books* are missing from the library.

b. Again Tarzan came down into the village and renewed his supply of arrows and ate *of the offering of food* which the blacks had made to appease his wrath. (E. Rice Burroughs, Tarzan of the Apes).   (Hoeksema, 1996a)

c. *A number of files* were deleted from the server.

d. *Els at van die smerige bonbons*
Els ate of those filthy bonbons   (de Hoop, 2003)

e. *Anne joi   maitoa*
Anne drank milk.PART
'Anne drank (some) milk.'   (de Hoop, 2003)

In general, all sentences in (25) establish a quantificational part-of relation either between sets and their members or quantities of substances and its sub-quantities. In particular, however, the examples have different characterisations. For instance, (25b) has been analyzed as the typical example of bare partitive in English, but Hoeksema (1996a) claims that these cases are very rare in English, probably restricted to verbs of ingestion (p. 16). Le Bruyn (2010) challenges this proposal, claiming that English (and Spanish) do not have bare partitives with the definite or with a demonstrative (p. 98). The partitive "of the offering of food" in sentence (25b) is not a bare partitive for Le Bruyn because it is only found in object position of the verb "eat", but with other verbs is ungrammatical both in English and Spanish.

As for pseudopartitives like (25c), de Hoop (2003) has claimed that, in ordinary partitives, they share the same function with regard to the partitive element "of", and they only differ in structural terms (p. 193). Faded partitives as the Dutch example (25d) have been discussed by de Hoop (2003) and others, but they are not present in English or Spanish. Morphologically marked partitive case examples like the Finnish sentences in (25e) are analyzed in Vainikka and Maling (1996) and de Hoop (2003), where they are compared to other partitives to determine whether they constitute instances of inherent or structural grammatical case, or whether they also share the semantic property of being set-denoting phrases.

16

With regard to the structure of the partitive phrase, several aspects can be found to be addressed in literature. Among them, the particular constraints on the type of determiners that are allowed in partitives have received the most attention. In the downstairs D position of the partitive structure (Det_2), determiners are usually restricted to a certain class. This is known in the literature as the Partitive Constraint (Jackendoff, 1977; Barwise and Cooper, 1981; Ladusaw, 1982; Hoeksema, 1984; de Hoop, 1997, 2003, and others). The restriction on partitives, according to this constraint, states basically that the embedded NP within the *of*-phrase must be definite or specific, namely of type *e* (Ionin et al., 2006). Semantic and pragmatic arguments have been put forward in relation to this issue, and some important discussions and references can be found in Hoeksema (1996a)'s compilation about partitivity.

As for the determiner in the upstairs position of partitive expressions (Det_1), Hoeksema (1984) indicated a constraint based on the distinction between transitive, intransitive and pseudotransitive determiners. Transitivity in this sense is understood in comparison with verbs, since it describes the option for the determiner to take a noun as its argument. In this way, determiners such as "every", "a", "the", etc., which always combine with a noun, cannot appear in the upstairs position of full partitives, but determiners such as "all", "some", or "none" are allowed in such position:

(26) a. *The/a/every of the students
      b. One/some/all of the students

McNally (1998) addresses another distinction with regard to partitives, which depends on the determiner in the head position of the noun phrase. She distinguishes between partitives with proportional determiners like "most of the students" from those with existential determiners like "many of the students". McNally claims that partitive NPs with existential determiners are available in existential sentences because they have property-type denotations. Determiners like "most" and the "majority of" cannot form partitive noun phrases (and be licensed in existential sentences) because they lack such denotations (pp. 372-373).

17

Here I will not be concerned with all the instances of partitivity aforementioned. I focus on typical full partitive constructions such as the indefinite NPs in (27):

(27) a. *algunos/unos de los libros*
          some-F.PL   of the books

      b. *algunas/unas de las botellas*
          some-F.PL   of the bottles

In order to see some of the phenomena that have been discussed with regard to this construction, I now present some arguments from studies in Romance linguistics, specifically those on the Spanish indefinite *unos* and the issue of (lack of) partitivity.

1.3.1 *Unos* as a non-partitive determiner

As weak determiners in the sense of Milsark (1977) and Barwise and Cooper (1981), it is commonly accepted that *unos* and *algunos* are allowed in existential contexts such as the one in sentence (28):

(28) *Hay unos/algunos perros ladrando en la calle*.
      'There are UNOS/some dogs barking in the street.'

However, the literature seems to agree on the claim that these indefinite determiners have different properties with regard to partitivity (Villalta, 1994; Gutiérrez-Rexach, 2001, 2003b; Le Bruyn, 2010, among others). In this subsection, I will take a closer look at this intuition, presenting the main arguments in relation to the kind of restrictions on partitivity that affect Spanish *unos*.

Constraints on partitives appear to be related to the determiner that heads the partitive DP. Following de Hoop (1997, 2003), it is possible to identify two types of determiners that appear in the upstairs position of partitive constructions. The first class consists of determiners that quantify over **semantic entities**, and includes forms such as "half (of)" or "much (of)". In the second class we find determiners that quantify over **sets of entities**, and they include weak determiners such as "two (of)" or "many (of)". Some determiners can belong to both classes, and this is a language-particular aspect of the semantics of determiner expressions (de Hoop,

2003, p. 184). This is clear in the contrast between English "some", which is ambiguous between the two classes, and Spanish *algunos*, which is only a set partitive, and *unos*, which seems to be neither entity nor set partitive. Let us now see in detail why *unos* appears to lack partitive readings.

The contrasting properties of *unos* and *algunos* that have been mentioned in previous sections are closely related to partitivity. What most works have concluded is that different restrictions seem to predict the availability of partitive readings for these determiners. In particular, the observation is that the semantic constraints that operate on *unos* do not affect *algunos*, and in the same way, the former blocks partitive readings while the latter naturally licenses them. For instance, Villalta (1994) noted that that *unos* behaves differently from *algunos* in a partitive structure such as the one in (29):

(29)   *Compré   algunos/*unos   de los libros que nos recomendaron.*
       buy-PST.1PL some-PL/UNOS of the books that us recommended
       'I bought some of the books that they recommended to us.'

Villalta understands partitivity according to the definition given by Enç, which states that noun phrases have covert partitive readings if they "introduce into the domain of discourse individuals from a previously given set" (1991, p. 9). Enç uses the term "covert" (in contrast to "overt") for noun phrases that lack a clearly differentiated partitive element (e.g. the preposition "of" in English), but can have partitive readings due to other reasons, such as the accusative case in certain Turkish object NPs or quantification over contextually given sets introduced by universal quantifiers (pp. 10-11).

In Spanish, the issue is that *unos* lacks partitive content because it forms NPs with group readings. Independently of the type of DP that occupies the downstairs position of the partitive, *unos* seems to be unable to access the constituents or atoms of the group referent, unlike the case of *algunos*. We will see later that this is only part of the story. For now, it is enough to say that the problem with *unos de los libros* in (29) is explained by Villalta in terms of discourse referentiality and group predication. Her argument is as follows. First, she states that *unos* cannot form an overt partitive NP,

a restriction that does not affect *algunos*. Then she adds that the constraint not only prevents *unos* from appearing in overt partitives but also in covert partitive NPs. Her example is reproduced here as (30):

(30) *En general los profesores de este departamento vienen a todas las reuniones.*
      Pero no todos vienen siempre.
      Por ejemplo, ???unos (profesores)/algunos (profesores) no asistieron a la
      reunión de ayer.
      'Generally, the professors of this department come to all the meet-
      ings. But not all of them come always.
      For example, some professors didn't attend the meeting that took
      place yesterday.'   (Villalta, 1994)

The set of professors that *unos/algunos* refers to is provided in the definite NP of the first sentence of (30). Villalta holds that in trying to pick up a subset of this set, the indefinite *unos* fails while *algunos* succeeds. For her, the sentence with *unos* "sounds strange", and for that reason it cannot denote a subset of a previously mentioned set (p. 9). She then correlates this conclusion with the availability of subkind interpretations for the NPs. If the determiner is *unos*, subkind readings are not available, as shown in (31) from Villalta:

(31) *Pedro sabe arreglar *unos relojes/algunos relojes.*
      'Pedro knows how to repair some (types of) watches.'

Thus, Villalta (1994) concludes that subkind interpretations depend on covert partitivity and reference to a subset of the kind. This line of thought would correctly predict that *unos* is incompatible with subkind readings in covert partitives, but it does not explain actual cases of sentences where *unos* can appear instead of *algunos* (see sections 2.3 and 3). For Villalta, *unos* in (30) sounds strange and makes (31) ungrammatical. My own native intuition tells me that *unos* in these examples is not ungrammatical at all, and that in (31) it is relatively acceptable. Whether this is due to dialectal variation or to the influence of prosodic stress, it seems more adequate to appeal to empirical evidence rather than to intuitions about the restriction of *unos* in overt partitives. Of course, written text data from corpora cannot be used to explain why semantic properties are blocked when actual phonetic realisations are uttered, but the disagreement on intuitions is enough motivation for testing certain partitive NPs in a corpus, which is the goal of the second part of this thesis.

1.3.2 Partitives with *unos*: special cases

There are other few cases where *unos* is actually allowed to be part of partitive constructions. Just as in the examples of contrastive focus with *otros* previously discussed, *unos* seems to behave like a partitive determiner in certain contexts such as noun-ellipsis, quantification with *cuantos*, and interaction with downstairs DPs containing superlatives and other structures. Here I provide some comments on the first two, and I leave the third set of contexts for the last part of this work, given that they seem to require a more extensive and comprehensive approach.

Recall that some of the properties of *unos* that were mentioned in section 1.2 were first noted by Villalta (1994). This author linked the problems of *unos* with individual-level and distributive predicates to partitivity. Her proposal rests on the idea that covert and overt partitives depend on quantification over individuals and the availability of distributive readings. The contrast with *algunos* would show that *unos* only allows collective readings because it introduces a group referent. Neither individual-level nor distributive predicates with *unos* would quantify over individuals, so partitivity would not be a semantic property of this determiner.

Villalta's work paved the way for subsequent and more complex analyses of the properties of *unos* with regard to partitivity. As mentioned in section 1.2.4 in relation to example (18), the absence of partitive readings for *unos* was also examined by Gutiérrez-Rexach (1999, 2001, 2003b). This author picked up Villalta's analysis and reformulated Enç's notion of partitivity in terms of a "no linking" constraint on the discourse referent introduced by *unos*, which prevents it from depending on another discourse referent already available. This constraint does not affect *algunos*, and it would be the reason for which *unas* in (32) from Gutiérrez-Rexach (2001) is infelicitous:

(32) *Las revistas de Luisa están en el cajón, las de Juana debajo de la cama y ?? unas/algunas de María están sobre la mesa.*
   'Luisa's magazines are in the drawer, Juana's are under the bed and some of Mary's are on the table.'

Sentence (32) is structurally equivalent to (18) above, a case of noun ellipsis, as noted by Le Bruyn (2010). He explains that the unacceptability

of the noun phrase *unos de N* is due to the fact that it cannot refer to a contextually salient set (p. 34). Le Bruyn clarifies that there is no need for a noun to precede the partitive *de*, since *unos* can function as a pronoun as in sentence (33):

(33) *Unos lo contaron anoche.*
      'Some told it yesterday evening.'   Le Bruyn (2010)

Note that it is possible to understand sentence (32) not as referring to one big set of books but relating three different sets (de Swart, p.c.). I think that this intuition has some consequences for the unacceptable reading of *unos*. The sets of Luisa's, Juana's and María's magazines are independent from each other. The first two sets are introduced by definite determiners, and the third set is only felicitously introduced by *algunos*. Although it seems to be semantically odd in this type of elliptical contexts, I think the availability of *unos* here depends on the type of NP it determines. Consider the partitive variation of (32) in (34):

(34) *Las revistas de Luisa están en el cajón, las de Juana debajo de la cama y unas/algunas de las (revistas) de María están sobre la mesa.*
      'Luisa's magazines are in the drawer, Juana's are under the bed and some of the ones from Maria are on the table.'

The difference with (32) is that in (34), the noun ellipsis is partitive DP-internal. Here, *unos* seems more comfortable in the upstairs D position due to the complement of the elliptical noun, *de María*, which helps *las revistas* to define a more specific set. The idea behind this observation is that the type of downstairs DP in partitive structures can have different effects on the availability of the plural indefinite *unos*. (See section 3.3 for further discussion about this proposal).

There is another relevant case where *unos* seems to be allowed for individual-level predicates, and to exhibit an apparent partitive interpretation. In (35) below from Alonso-Ovalle and Menéndez-Benito (2002), *unos cuantos*, which is roughly equivalent to the English 'a few', precedes a noun and licenses individual-level predication. In (36) from López-Palma (2007), it allows both distributive and collective interpretations. Note that *algunos* can occupy the place of *unos* in these contexts, but *algunos cuantos* seems to be idiosyncratic of a few areas of Latin America (RAE, 2009):

(35) *Unos cuantos   estudiantes son inteligentes.*
      UNOS CUANTOS students   are intelligent
      'A few students are intelligent.'

(36) *Unos cuantos   invitados se   comieron un plato de jamón.*
      UNOS CUANTOS guests   REFL eat-PST a   plate of ham
      'A few guests ate a plate of ham.'

As it occurs in aforementioned environments, *unos* in *unos cuantos N* acts in tandem with another determiner to contribute a particular semantic property of the indefinite NP. Alonso-Ovalle and Menéndez-Benito (2002) provide no explanation for the semantic behaviour of this structure, but they propose to understand *unos cuantos* either as a complex determiner or via a compositional account. In principle, both ways would be compatible with other instances of the special behaviour of *unos*, such as the contrastive *unos... otros*. Here I will only assume that one way or another, the partitive content of *unos cuantos* still depends on the possibility of accessing the members of the group referent. Consider the differences between the examples in (37):

(37)   a. *Unos cuantos/algunos bailaron.*
           'Some/a few danced.'

       b. *Unos cuantos/algunos invitados bailaron.*
           'Some/a few guests danced.'

       c. *Unos cuantos/algunos de los invitados bailaron.*
           'Some/a few of the guests danced.'

 In all cases, *unos* introduces an unspecified quantity of individuals of which a given property is being predicated. The contribution of *unos cuantos* is that it adds a certain quantificational nuance to the indefinite. It is perhaps the contribution of *cuantos* what triggers a proportional reading, so the compositional account could be developed from that aspect. Note, however, that without *unos*, *cuantos* cannot have such behaviour: **cuantos invitados bailaron.*[3] Either compositionally or as a complex determiner, the

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[3]This unacceptable sentence must be distinguished from its syntactically equivalent but acceptable version, which would correspond to a continuation like that in (i):

(i)   ¿Quienes fueron filmados? Cuantos invitados bailaron.
      'Who were filmed? All those guests who danced.'

indefinite *unos cuantos* picks a subset of a group of individuals, namely the subset of individuals who danced. The main set (all the guests) is only clear in (37b) and (37c), but the crucial point is that both pronominal and determiner *unos cuantos* have a partitive interpretation.

In sum, we can say that the Hispanic linguistics literature has agreed upon the the idea that *unos* lacks partitive content, although we will discuss exceptions that have only been mentioned in the literature. Contrastive or prosodic focus enable partitive readings, but the conditions are certainly not properties of *unos* itself. The same holds for the determiner *unos cuantos*, which allows proportional readings, and whose properties in some cases are equivalent to the semantics of *algunos*.

So far, we have seen that most discussions about the semantic properties of *unos* come from theoretical analysis, but empirical data have not been widely used to support this group of observations. One notable exception, namely Le Bruyn (2010), provides a useful discussion of *unos* based on the results of his own corpus research. This author consulted the CREA, a corpus of contemporary Spanish available online (RAE, 2012). Here I tried to replicate his findings on a different data base, the CEA or Corpus del Español Actual (Subirats and Ortega, 2012). Presenting my corpus study is the goal of chapter 2. But before reporting my results I would like to mention some aspects about methodology in the last subsection of this part of the thesis.

1.4   Methodological considerations

1.4.1   Using corpora to study partitivity

With regard to the data that can be obtained from a corpus study, and in particular with the corpus used in this thesis, there are at least three main aspects that should be taken into consideration.

In this sentence *cuantos* also modifies the noun as determiners normally do. However, the difference with the ungrammatical example is that here *cuantos* is part of the answer to the question introduced in the first sentence, which contains the antecedent of the VP-ellipsis (*fueron filmados*). In this context, *cuantos N* is equivalent to 'all those N who'.

- First, while automatic tagging is a process that seems to be necessary for large sets of linguistic data, its downside is the possibility of assigning erroneous tags to words and parts of speech. This aspect was evident in the matches returned by the queries, and it made the analysis turn into a case-by-case examination of the data.

- The second factor to consider has to do with the kind of texts included in the corpus. The CEA seems to contain texts corresponding to transcribed spoken language from the European Parliament Proceedings. The data included in the CEA is the Spanish part of the Europarl (Koehn, 2005). As a parallel corpus, it contains text from a given language and its translation into a second language. It is no clear whether the Spanish data come from speeches by native speakers or if they are part of translations from other languages. Assuming the best scenario, I acknowledge the relevance of this source of transcribed spoken language, because even if linguistic data are sloppy, we want to check them for certain expressions that are said to be unacceptable on the basis of intuition or invented sentences. As it has been discussed in corpus linguistics, the differences in mode are real and not just a simple matter of methodology (McEnery and Hardie, 2012). In general, we can assume that the use of corpora for studying partitivity is justified primarily by the great amount of data contained in data bases, and as Le Bruyn (2010) argues, the lack of occurrences of a certain phrase or sentence in a large corpus strongly suggests that the construction is unacceptable in the language under analysis. This position is adopted in the present work, and the use of a different corpus from the one used by Le Bruyn (2010) in part aims to corroborate such a methodological claim.

- Finally, there is an obvious and important disadvantage in using a corpus, which makes the cards stack against the possibility of finding partitive interpretations for *unos*. It is the fact that corpora do not contain focus in the sense of the prosodic stress mentioned before. Whether it is true that real instantiations of Spanish sentences allow for partitive readings of *unos* in contexts where it is stressed, that is not possible to investigate in written data. To my knowledge, there is no database with audio recordings of Spanish sentences, and if there is any, identifying occurrences of stressed *unos* would be

an extremely time-consuming process. There are several options to reduce the problematic dimension of this situation. One is to look for detailed linguistic information in the corpus that could suggest the presence of prosodic focus on *unos* (excluding cases with *otros*), but the specification of such contextual information is not clear and makes the whole enterprise very undetermined.

Another option would be to use a different method for collecting data, an oral form of linguistic communication to create or elicit contexts of stressed *unos*. It does not have to be a large scale project, so perhaps interviewing a native speaker would be useful. The fact that the previous works on this topic are based on personal intuitions, knowledge of the language, and judgements from native informants makes this alternative reasonable. Likewise, it would be possible to design and run an experiment in a controlled environment and analyse prosodic contours. By selecting some of the relevant cases from the data in the corpus, it would be possible to carry out a phonetic analysis of speech recordings and examine the differences between unstressed and stressed *unos*. The details and implications of these methods, however, are issues that we leave for further research.

Taking the previous considerations into account, I now turn the attention to the corpus research. The structure of this study follows Le Bruyn (2010). He used three of the constraints mentioned in the literature as tests to analyse the availability of partitive readings for indefinite NPs with *unos*. The tests correspond to the following contexts:

(A) Individual-level predicates

(B) Noun ellipsis (i.e., "No linking" constraint or subset denotation)

(C) Upstairs D-position of full partitives

Le Bruyn found no instances of the two first cases, but he obtained 27 matches for the third test, all of them with downstairs D superlatives. With these results in mind, and in line with the theoretical intuitions about the semantic restrictions on *unos*, I expected to find no valid occurrences of

this determiner in those tests, except for some few cases of *unos* interacting with superlatives.

Following Le Bruyn's perspective, I understand the lack of partitive readings for *unos* as support for the claim that partitivity is not a property of this plural indefinite. However, the relatively high number of occurrences of *unos* in partitives with downstairs superlatives has forced me to devote a complete section to analyse these cases. Let us now see the results of the study.

2 A corpus-based study for *unos*

This section describes and reports the results of a corpus-based study for the Spanish indefinite article *unos*. Building upon the work of Le Bruyn (2010), and using a different corpus, I searched for constructions with the plural indefinite *unos* in different contexts. I also follow Le Bruyn in trying to identify instances of *unos* in individual-level predicates, noun ellipsis, and upstairs D position of full partitives, as described in the previous section.

In order to test the acceptability of *unos* in these constructions, data from the Corpus del Español Actual (CEA)[4] have been collected. This is a tagged corpus with around 540 million words of contemporary Spanish. According to its official website, the corpus contains three collections of texts: (i) the Spanish part of the eleven-language parallel corpus Europarl: European Parliament Proceedings Parallel Corpus, v. 6 (1996-2010); (ii) the Spanish portion of the trilingual Wikicorpus, v. 1.0, extracted in 2006; (iii) the Spanish part of the seven-language parallel corpus MultiUN: Multilingual UN Parallel Text 2000-2009, a corpus consisting of resolutions of the United Nations. The authors of the corpus tagged it automatically using an online dictionary and the tags were disambiguated through intersecting finite-state automata based on lexical and syntactic information (Subirats and Ortega, 2012).

The queries were performed on the web interface of the Corpus del Español Actual (CEA). The corpus allows queries on a database of 539,367,886 words spread over 73,010 texts. Let us now see in detail the queries and their results. The items in table 1 below are given for general reference purposes. It is the list of all queries performed in the corpus interface, together with and ID and the syntax used for each structure.

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[4] Available online at `http://sfn.uab.es:8080/SFN/tools/cea/english`

28

ID	NP	Query syntax
1	unos	un?s
2	algunos	algun?s
3	unos N son N	un?s _N son _N
4	algunos N son N	algun?s _N son _N
5	unos N son ADJ	un?s _N son _APRED
6	algunos N son ADJ	algun?s _N son _APRED
7	unos N son unos N	un?s _N son un?s _N
8	unos de N	un?s de _N
9	algunos de N	algun?s de _N
10	unos de los N	un?s de l?s _N
11	algunos de los N	algun?s de l?s _N
12	unos de los N más	un?s de l?s _N más
13	algunos de los N más	algun?s de l?s _N más
14	unos de los más	un?s de l?s más
15	algunos de los más	algun?s de l?s más
16	unos de los ADJ	un?s de l?s _APRED
17	algunos de los ADJ	algun?s de l?s _APRED

Table 1: List of queries used in this study

The distribution of *unos* vs *algunos* is presented in table 2. It is clear from the numbers there that, in all possible environments, *algunos* is at least 2.5 times more frequent than *unos*. This basic piece of information is already interesting in that we can relate the lower frequency of *unos* to the fact that there are more restrictions limiting its contexts of appearance.

ID	NP	Matches
1	unos	200,259
2	algunos	533,279

Table 2: Distribution of *unos* and *algunos*

Let us now address the three main contexts where the data can tell us something about *unos*. The first test mentioned in Le Bruyn (2010) is the acceptability of *unos* in the subject position of individual-level predicates

(2.1). The second is noun ellipsis, i.e., contexts where *unos* is the head of a DP with a missing or elliptical NP constituent (2.2). The third test is the upstairs D position (Det$_1$) of full partitives (2.3).

2.1 Individual-level predicates

The first query on this test checks the corpus for constructions where *unos* precedes the noun in subject position of sentences expressing individual-level predicates. Two prototypical structures of these sentences in Spanish have the form *algunos N son N* and *algunos N son ADJ*, where the noun or the adjective in the predicate express a permanent property of the subject. Since it has been claimed that *unos* is incompatible with this type of predicates, I expected to find no results in the corpus data. Table 3 below contains the results of the queries ID-3 to ID-7 corresponding to individual-level predicates. "Clean data" refers to acceptable occurrences of *unos* for the corresponding query. For most of the queries, I excluded repetitions, tagging errors, typos, and well-formed phrases corresponding to unrelated contexts.

ID	NP	Matches	
		Raw	**Clean**
3	unos N son N	7	0
4	algunos N son N	224	42
5	unos N son ADJ	9	0
6	algunos N son ADJ	372	59
7	unos N son unos N	1	1

Table 3: Individual-level predicates

At first sight, the numbers seem to support the prediction about the unacceptability of *unos* in these contexts. For ID-3, none of the 7 matches is an example of *unos* as the determiner of a DP in subject position of an individual-level predicate. In some cases, the results are instances of *unos* interacting with other determiners as in *otros* in (38) or *cuantos* in (39):

(38) *Unas especies son comestibles y otras son venenosas*
UNAS species are food/edible and other are poisonous

30

'Some species are edible and others are poisonous.'

(39) *Unos cuantos son ateos   o   pertenecen a   alguna otra   religión.*
     UNOS few   are atheist or belong   to some   other religion
     'Some few are atheist or belong to some other religion.'

Some of these cases are also the result of tagging errors. In (38), *comestibles* must have been tagged as a noun because the word is ambiguous between adjectival and nominal interpretations. As for *cuantos* in (39), it has been tagged as a noun, which is probably due to the fact that *cuantos* can be pronominalized, and pronouns in this corpus sometimes appear with noun tags.

Occurrences of expressions such as *unos N are ADJ* in ID-5 were not found either. As for the only instance of ID-7, it was a definition from an online dictionary, and have no reason to consider it other than an isolated case:

(40) *Unos gemelos   son unos   botones de uso ornamental   usados para*
     UNOS cufflinks are UNOS buttons of use ornamental used   for
     cerrar los puños de las camisas que   no tienen botones fijos.
     close the cuffs of the shirts   that no have   buttons fixed
     'Cufflinks are decorative buttons used to fasten the cuffs of shirts with no buttons.'

Additionally, I searched for instances of *unos N* with verbs such as 'like', 'love', or 'hate', which allow individual-level predicates as well, but the few matches I obtained had no acceptable cases of this sort of predicates. For the sake of simplicity, I omitted a wide range of instances of individual-level predicates such as complex or modified NPs with adjectives and relative clauses, which in Spanish can affect the order of the constituents in several ways. One reason for this is that as I added more constituents to the queries, I obtained either too much data or more tagging errors. The general assumption is then that if the most simple structures of individual-level predicates work with *algunos* but not with *unos*, we can expect more complex sentences not to be significantly different.

In sum, we can say that this corpus study confirms the results of Le Bruyn (2010)'s first test. Unlike *algunos*, the indefinite *unos* does not seem to be allowed in individual-level predicates.

2.2 Noun ellipsis

The second test is based on the fact that determiners that lack partitive content are incompatible with noun ellipsis. The Spanish determiner *unos* seems to obey what Gutiérrez-Rexach (2001) calls a "no linking constraint": the DP headed by *unos* in (41) is said to be unable to refer to the set of books introduced before in the discourse:

(41) *Los libros de matemáticas están en el cajón, los de física debajo de la cama y ?? unos de lingüística están sobre la mesa.*
'The books about mathematics are in the drawer, those about physics under the bed and UNOS about linguistics on the table.'

Gutiérrez-Rexach (2001)

As Le Bruyn (2010) noted in his own research, data for this test is more difficult to obtain from corpora (p. 36). I focused on the structures *unos de N* (ID-8) and *algunos de N* (ID-9), checking whether the ellipsis was valid or not. Table 4 below shows the results for these two queries:

ID	NP	Matches	
		Raw	**Clean**
8	unos de N	50	0
9	algunos de N	453	28

Table 4: Noun ellipsis

Once again, *unos* emphatically contrasts with *algunos*. There were no typical occurrences of noun ellipsis in the corpus. On the other hand, *algunos* normally occurs licensing ellipsis, as the 28 clean matches in the corpus show. It must be noticed, however, that 26 of the 50 results for *unos de N* in the search were acceptable cases of noun ellipsis due to the presence of *otros*:

(42) *traduciendo unos libros que le han traído de   China, unos*
       translating UNOS books that him have brought from China UNOS
       de comedias, otros   de dinastías de emperadores .
       of comedies others of dynasties of emperors

       'translating some books that they brought him from China, some
       about comedies, others about dynasties of emperors.'

Sentences such as (42), which were also found in Le Bruyn (2010), are additional examples of how the interaction between both determiners blocks the restrictions that *unos* cannot avoid individually.

There are other factors to be considered when looking for noun ellipsis in Spanish corpora. One is the fact that *unos de* can be followed not only by nouns but also by adjectives, adverbs, prepositions, and verbs. Another factor is the tagging errors in the corpus. They can definitely affect the research, particularly in cases such as this, where we have to manage with few or no matches at all for many queries. Sentence (43) is an example of these two factors. The word *larga*, 'long', precedes the noun, and it was tagged as a noun as well, but it is in fact an adjective:

(43) *El planeta está lleno de puntos conflictivos, unos de larga data y*
       the planet is   full of points troublesome UNOS of long date and
       otros   nuevos.
       others new

       'The world is full of troubled places, some old, some new.'

I have omitted addressing all these details on the basis that, just as in the case of individual-level predicates, they are not significantly problematic after considering the contrasts from the basic examples.

2.3   Upstairs D position of full partitives

Finally, I report the most complex search I performed in the corpus, namely *unos* and *algunos* in the upstairs D position of full partitives. The typical structure of these constructions in Spanish is [Det_1 *de* Det_2 NP]. The queries were focused on *unos* and *algunos* in the Det_1 position. Queries with adjective phrases preceding the embedded NP were also included to have a more complete view of these Spanish constructions. Table 5 below presents the results obtained for this test.

ID	NP	Matches (clean)
10	unos de los N	536
11	algunos de los N	40,379
12	unos de los N más	145 (55)
13	algunos de los N más	3,276
14	unos de los más	116 (52)
15	algunos de los más	831
16	unos de los ADJ	248 (81)
17	algunos de los ADJ	8,136

Table 5: Upstairs D position of full partitives

For the query *unos de los N* (ID-10), I obtained 536 matches, while for *algunos de los N* (ID-11) there were 40,379 matches. Even though the difference is striking, we can see that *unos* has a significant number of instances in this context. This is certainly the most notable aspect of the entire corpus study, since for other tests we had only two outputs: no cases of *unos* in the relevant context at all, or cases where it was allowed by virtue of its interaction with contrastive *otros*, "others". Here, *unos* does not seem to follow that pattern, with the occurrences of this determiner and those of *algunos* displaying a parallel composition, as seen in the example below:[5]

(44) *la   equidad   y   el   crecimiento son unos de los puntos de*
    the equality and the growth   are *unos* of the points of
    referencia que definen la   visión de los Objetivos de Desarrollo
    reference that define the vision of the objectives of development
    del   Milenio
    of.the millennium

---

[5]Strictly speaking, *otros* can appear in this query if *unos* has a pronominal interpretation in a reciprocal context, as in the following case:

(ii) *Aprendamos los unos de los ejemplos   de los otros.*
    Learn   the *unos* of the experiences of the others
    'Let us learn each other from our examples.'

For instance, if we replace "examples" with "experiencies", which is feminine in Spanish, we can see that *unos* lacks gender agreement with the noun. This is one of several indications that we are dealing with a non-partitive PP.

'Equality and growth are some of the points of reference that define the vision of the Millennium Development Goals.'   (CEA)

(45) *la   creación de empleo,   la agricultura, la ciencia y   la*
      the creation of employment the agriculture the science and the
      tecnología   son algunas   de las esferas   que abarcan los programas
      technology are ALGUNOS of the spheres that cover   the programs
      de cooperación   bilateral.
      of cooperation bilateral

      'Job creation, agriculture, science and technology are some of the fields included in the bilateral cooperation programs.'   (CEA)

Let us now analyse the relations between the other queries and their results. I focus on the numbers for queries with *unos*, since queries with *algunos* are not problematic and are there only for comparison purposes.

- The queries that I have labelled as ID-10 and ID-11 consist of different types of downstairs DPs. I focused on superlatives, the most productive example, so they technically include the queries ID-12 and ID-13, respectively. The specification by means of *más*, 'more', makes them particularly useful for finding downstairs superlatives. Indeed, from the 145 matches with *unos* in ID-12, 55 of them were clean (acceptable unique instances of superlative DPs).

- As for queries ID-14 and ID-15, they can be considered as "sisters" of ID-12 and ID-13, respectively, given that the syntagmatic relation of Spanish word order allows this way to produce superlatives: e.g., *unas de las montañas más altas* (ID-12) and *unas de las más altas montañas* (ID-14) are both completely equivalent, meaning "some of the highest mountains". I paid special attention to the 116 matches obtained from ID-14, and I could count 52 clean downstairs superlative DPs.

- Finally, for the sake of completeness, I have added queries ID-16 and ID-17. They are strictly related to the two previous queries because some superlatives in Spanish are formed using an adjective that qualifies as superlative on its own. For instance, *unos de los más antiguos edificios*, 'some of the oldest buildings', contrasts with

unos de los mejores edificios, 'some of the best buildings'.[6] Once again, I focused on adjectives that are part of downstairs superlative DPs. From the 248 matches in ID-16, 81 were counted as acceptable superlatives preceded by *unos* and the partitive preposition *de*.

The results of this third test amount to the following conclusion: after sorting out typos and repetitions, I encountered 188 occurrences of *unos* in upstairs D position of partitive *of*-PPs with downstairs D superlatives (ID-12 + ID-14 + ID-16). Other possible downstairs DPs could be there in the raw data of full partitives that I did not check, but the search becomes time consuming, since actually *unos de los* with anything after the definite determiner yields 1261 raw matches in this corpus.

The literature seems to agree upon the special cases of partitive sentences with *unos* mentioned in section 1.3.2. However, few things appear to have been said with respect to partitive-like structures with downstairs D superlatives. As pointed out by Le Bruyn (2010) and further confirmed in this study, the relatively high number of occurrences of *unos* in these contexts (188 for this corpus) is telling us that there is something about superlatives that makes *unos* available in partitive constructions. With this motivation in mind, I now take a closer look at the interaction between *unos* and the embedded superlative, in the final part of this thesis.

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[6]There are only four Spanish comparative adjectives in this class, which are called "syncretic adjectives" (RAE, 2009): *mejor*, ('more good'), *peor* ('more bad'), *mayor* ('more big'), and *menor*, ('more small').

3 *Unos* and the availability of partitive readings

3.1 The downstairs D position of full partitives

As mentioned in the section introducing the study of partitivity, Hoeksema (1984) noted that there are some restrictions with regard to the English determiners that are allowed in the upstairs position of full partitives. With regard to Spanish, we know that *algunos* resembles part of the behaviour of "some", so its presence in the upstairs position of full partitives is perfectly normal. This, however, might not be the case of *unos*, as noticed by Gutiérrez-Rexach (2001, 2003b) and Le Bruyn (2010):

(46)   *He   visto a   ??unos/algunos de los familiares de Pedro*
       Have-1sg seen to unos/some   of the relatives of Pedro

       'I have seen some of Pedro's relatives.'

From a diachronic perspective, Le Bruyn (2009) showed that *unos* was allowed in this sort of partitives at the beginning of its grammaticalization process. However, strictly speaking, this is not a property of the present-day version of this Spanish indefinite, so Le Bruyn (2009, 2010) and Gutiérrez-Rexach (2001) agree on the contrast between *unos* and *algunos* in (46). Where they seem to disagree is in cases where *unos* appears in the upstairs position of partitives with downstairs superlatives, the kind of structures we found in 2.3 from the corpus section. Let us have a closer look at this interesting bone of contention.

Gutiérrez-Rexach (2001, 2003b) challenges Villalta's aforementioned conclusion about the complete lack of overt partitives in Spanish with the indefinite *unos*. For Gutiérrez-Rexach, it is not the case that *unos* is incompatible with overt partitive constructions, but rather that partitives with *unos N* violate the no-linking constraint (p. 127). Consider his main example of *unos* with a downstairs superlative:

(47)   *Estos son unos de los mejores jugadores de la   Historia.*
       These are unos of the best   players   of the history

       'These are some of the best players in history.'

As far as I am aware, the only two positions available in this respect depend on the characterisation of the definite DP embedded in the *of-*

phrase: for Gutiérrez-Rexach (2001) it is a kind-referring expression, and for Le Bruyn (2010) it is just a superlative DP.

Gutiérrez-Rexach calls the partitive in (46) an object partitive, and the one in (47) a class or kind partitive. According to this author, object partitives connect entities, while class partitives establish a relation between an entity and a class. Gutiérrez-Rexach adds that *unos* in (47) instantiates a kind, specifically the kind of the best players in history (p. 127). He opposes this kind-referring behaviour to that of *unos* in (46). There, *unos* is not acceptable because it introduces a plural discourse referent that should be linked to a previously introduced set. The set is *los familiares de Pedro*, 'Pedro's relatives', but in (46) it is clearly new information instead of an old discourse referent.

Le Bruyn (2010) agrees with Gutiérrez-Rexach on the behaviour of *unos* in (46), formulating the constraint as the unacceptability of *unos* in the upstairs D position of full partitives (p. 35). However, he is not convinced by examples such as (47), and he claims that Gutiérrez-Rexach's interpretation of this type of sentences is wrong. For Le Bruyn, contending that *los mejores jugadores de la Historia* is a kind-referring downstairs DP is a judgement error for at least two reasons. The first one is that Spanish does not allow kind-referring elements as part of partitive expressions, as shown in (48) below:

(48)   *Unos de los leones/estos leones africanos escasean*
     UNOS of the lions/these lions are scarce   (Le Bruyn, 2010)

The second reason is that the superlatives in question are the only significant counterexamples to the claim that *unos de los* cannot form partitives, which raises suspicions about the alleged partitive content of these structures. Just as in the present study, the majority of acceptable occurrences of *unos* in the upstairs D position of partitives found by Le Bruyn (2010) in his corpus study were accompanied by downstairs superlatives, which he takes as indication that what is licensing *unos* is the superlative DP (p. 35). His main example is reproduced in (49) below:

(49)   *se sitúan sobre unos de los puntos más calientes del globo*
     they are situated on some of the warmest spots of the globe

Le Bruyn conjectures that there must be something about superlatives that licenses partitive readings in these contexts. However, he left this matter for further research. Here I pick up Le Bruyn's intuition by analysing the interaction between *unos* and the superlatives in sentences such as (47) and (49).

The semantic analysis I propose in the next subsection builds upon the observation made by Le Bruyn in the following way. We want to understand why *unos* is allowed in these over partitive contexts. At the same time, and in line with all the evidence that support this claim, we do not want to abandon the idea that *unos* itself lacks partitive content. In consequence, we need to analyse the semantic contribution made by the superlatives, and its relation with *unos*. For this purpose, I will first review some aspects of the semantics of superlatives to shed some light on the status of *unos* in the upstairs position of the DPs in question.

3.2 A semantic approach to partitive superlative NPs in Spanish

Let us consider example (50) from Alonso-Ovalle and Menéndez-Benito (2002), where both *unos* and *algunos* are perfectly acceptable:

(50)   a.   *Unos chicos están pintando.*
             'UNOS kids are painting'

       b.   *Algunos chicos están pintando.*
             'Some kids are painting'

Recall that Gutiérrez-Rexach (2001) proposed a similar definition for both determiners, indicating that the cardinality of the intersection of the two sets related by *unos/algunos* should be at least two. In other words, (50a) and (50b) are set-theoretically equivalent. However, there is a difference that is not captured by the set equivalence. According to Alonso-Ovalle and Menéndez-Benito (2002), *algunos* allows a partitive reading, so (50b) would mean something like 'some of the boys are painting'. The scalar implicature triggered by *algunos* is that the predicate does not apply to all the entities denoted by the noun (p. 14). On the other hand, *unos chicos*

only expresses the idea that there is an unspecified quantity of boys who happen to be painting. This contrast is not as straightforward when *unos* and *algunos* are found in phrases containing downstairs D superlatives. Let us consider our main target sentences in (51) below:

(51)   a. *Estos   son algunos   de los mejores jugadores de la   historia.*
          These are ALGUNOS of the best   players   of the history

       b. *Estos   son unos de los mejores jugadores de la   historia.*
          These are UNOS of the best   players   of the history
          'These are some of the best players in history'

At first sight, we could say that (51) divides the set of the best players in history into those the speaker refers to with the demonstrative *estos*, 'these', and all the other best players. Of course, a sentence such as 'These are the best players in history' contrasts with a partitive as (51a), so we can be sure that the presence of *algunos de* is what allows overt partitivity. In regard to (51b), we would like to continue assuming that *unos* lacks partitive content, so we could try to look at the interaction between *unos* and the superlative to explain the acceptability of this type of examples. For this purpose, it is necessary to examine first the semantic contribution of the superlative, and then to discuss the role of *unos* and *algunos* in these sentences. I now turn to a brief discussion of superlatives followed by a formal analysis of the partitive superlative target example (51a).

3.2.1   The semantics of superlatives

In her analysis of comparative and superlative operators, Szabolcsi (1986) pointed out an ambiguity of sentences such as (52), where two different readings can be identified:

(52)   John climbed the highest mountain.
       a. John climbed a mountain that is higher than any other mountain (absolute reading)
       b. John climbed a mountain that is higher than the mountains anyone else has climbed (comparative reading)

  Besides Szabolcsi's approach, different explanations have been offered for the nature of this ambiguity (Heim, 1985, 2004; Farkas and Kiss, 2000;

Sharvit and Stateva, 2002; Gutiérrez-Rexach, 2006). Leaving aside the details of such proposals, which deal with LF movement and *in situ* analyses of the interpretation of *-est*, we can focus on a more general treatment of the semantics of superlatives. On her influential approach to comparative operators, Heim (1985, 2000, 2004) states the following truth conditions for the English superlative *-est*:

(53) $\text{-}est(\langle a, B \rangle, f) = 1$ iff $\forall x \in Bn\{a\} : (a) > f(x)$

This standard denotation of the superlative in an absolute reading states that the operator *-est* is a two-place predicate that takes an individual x and a property R, and it is true if and only if there exist a degree d such that x has the maximal degree of the property. For instance, a sentence such as 'John is the brightest man' would be equivalent to (54), taken from Gutiérrez-Rexach (2006):

(54) $\text{-}est(\textbf{bright man})(\textbf{John}) = 1$ iff there is a degree such that John is bright to that degree and no other man is bright to that degree.

The syntactic structure of the superlative NP is assumed to be the one proposed by Kennedy (1997) as found in Farkas and Kiss (2000):

(55) $[_{DP} [_D \text{ the}] \ [_{NP} [_{DegP} [_{Deg} \text{ -est}] \ [_{AP} \text{ high}] \ ] \ [_{N'} \text{ mountain}] \ ]$

In Spanish, the adverb *más*, 'more' is the equivalent of the operator *-est*, and it is always placed before the gradable adjective in superlative constructions. According to Gutiérrez-Rexach (2003a), the semantics of Spanish superlatives is also a binary function that applies to a relation between individuals, and that it is true if and only if there is a degree d such that x has the property R to d and no other individual has property R to that degree (p. 194). To account for contextual restrictions, Heim (2004) claims that the operator *-est* takes three arguments in total: the "internal argument", which is the property conveyed by the adjective to which *-est* affixes; the "external argument", the individual which the superlative predicates about; and a "domain argument", a predicate variable C which receives its value from the context. The truth conditions of the binary function are represented in (56), while the updated semantic characterisation with the contextual variable is provided in (57):

41

(56) *-más*$(x, R) = 1$ iff $\exists d(R(x, d) \wedge \forall y[y \neq x \rightarrow \neg R(y, d)])$

(57) *-más*$(x, R, C) = 1$ iff $\exists d(R(x, d) \wedge \forall y[y \neq x \wedge y \in C \rightarrow \neg R(y, d)])$

Note that we do not have to be concerned with the details of how focus affects the ambiguity of comparative readings of the superlative, as in Szabolcsi (1986), Farkas and Kiss (2000), Heim (1985, 2004), Romero (2011, 2013), among others. In our target example, the PP "in history" would be the type of overt constituent that forces the entire sentence to be interpreted with an absolute reading. In other words, "the best players in history" defines a set equivalent to the absolute set of all players ever for the game or sport the speaker has in mind.[7] Heim (2004) proposes a way to avoid potential issues in these particular cases. In our target example, the superlative is a noun phrase with an extra argument, namely "in history". The status of this PP is different from other constituents that could help to disambiguate the possible readings through focus, since as mentioned before, it is an absolute set. In terms of Heim's proposal, the semantics of the superlative operator would correspond to a 3-place function which allows an expression of type $\langle e, t \rangle$ to be the locus of the semantic contribution of the PP.[8] The Spanish version of such operator is reproduced below:

(58) $[\![-más]\!] = \lambda C_{\langle e, t \rangle}.\lambda P_{\langle d, et \rangle}.\lambda x_{\mathrm{e}}.\exists d[P(x, d) \wedge \forall y[y \neq x \wedge y \in C \rightarrow \neg P(y, d)]]$

---

[7]As pointed out by Farkas and Kiss (2000) and Heim (2004), plural superlatives might need a slightly different treatment because they do not refer to a singleton set, and they are highly context-dependent. For instance, "the highest mountain in the world" has an absolute reading and extensionally corresponds to Mount Everest. However, a particular observation about plural superlatives must be made. In "the highest mountains in the world", we would still need a much more contextually detailed description of the reference set. Sets introduced by plural superlatives with overt restrictive constituents (e.g. PPs) not only fail to meet a uniqueness condition, but also seem to require specific information as in "John climbed the highest mountains in Europe that are above 5000 m".

[8]See Romero (2011, 2013) for a discussion about having two alternative *-est* operators and the applicability of the 3-place version to modal superlatives.

### 3.2.2 A semantic analysis of partitive superlatives

Now we are in position to formalise the analysis of our target sentences in (51). First, we have to take into account that the structure of the superlative operator differs in both languages. The English superlative "the highest mountain" would correspond to the Spanish NP *la montaña más alta*. Note that the Spanish superlative operator is not an element that must be affixed to the adjective, so we can think of a template with the structure [Det + *x* + más + *y*] (Gutiérrez-Rexach, 2003a), where *x* and *y* are independent lexical elements (noun and adjective, respectively). The adjective *mejor*, 'better', and its plural form *mejores* are instances of what Spanish grammarians call "syncretic adjectives" (RAE, 2009), so I assume that at a more abstract level of representation, *los mejores jugadores* is equivalent to *los más buenos jugadores*, lit. 'the most good players'. Of course, we should exclude the alternative meaning of *buenos*, namely that related to kindness.

The operator *más* ranges over the property "best", "players" (which is the set of individuals), and "in history" (which determines that the domain of comparison is the set of all players in history). The crucial aspect is the connection between the partitive and this characterization of the superlative. The claim is that the interaction between *algunos* and the superlative operator produces an extra relation between sets. First, there is the set of all players, defined by the restrictive PP "in history" (*A*). Second, we have the superlative operator, which takes a subset of the set of all players, namely the set of best players (*B*). Third, there is the combination of the determiner and the partitive of *algunos de*. The partitive element picks out another subset (*C*), which in this particular case consists of some specific players the speaker has in mind (and who are the reference set of the demonstrative pronoun). Note that proper partitivity is an important aspect of this partitive determiner, since it corresponds to the implicature that any set picked out by "some of the N" is not equal to the set of all N (Barker, 1998).[9] This is illustrated in (59):

---

[9]Against this proper partitivity, Le Bruyn (2010) supports the standard version. The former is usually represented as ¡, while the latter corresponds to the $\leq$ relation. Here I take distance from Le Bruyn's proposal, given that I am only concerned with full partitives and more specifically with those headed by the determiner *algunos*, which in my opinion can be only understood as a proper partitive.

(59)

Proper partitivity: $C \subset B \subset A$

C
Partitive
"some"

A
"players in history"

B
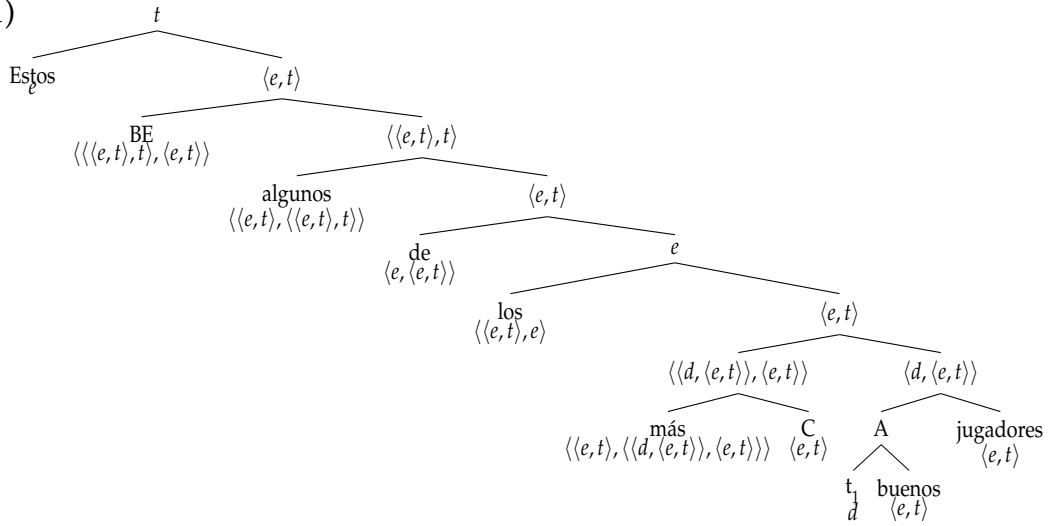"best players"
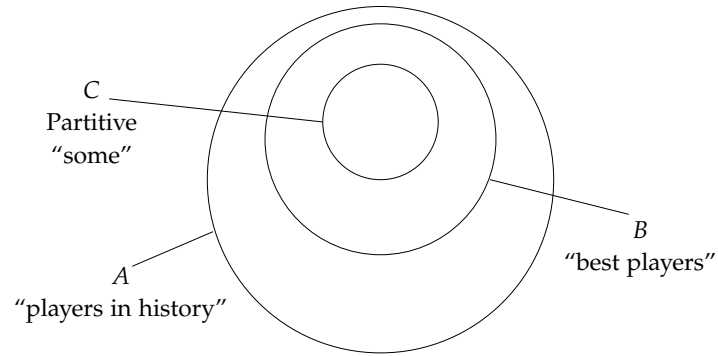
The analysis provided below is a more formal attempt to show the compositional semantics for the target example *Estos son algunos de los mejores jugadores*, 'These are some of the best players in history'. The representation in (60) shows the structure of target sentence (51a). The semantic types are presented in (61), and the steps of the compositional derivation are given in (62).

(60)

```
                              IP
              ┌────────────────┴──────────┐
             NP                           VP
            Estos              ┌───────────┴──────────┐
                               V                      DP
                              son         ┌────────────┴────────┐
                                          D                     PP
                                       algunos       ┌──────────┴──────────┐
                                                      P                     DP
                                                      de           ┌─────────┴────────┐
                                                                   D                  N′
                                                                  los        ┌─────────┴──────────────┐
                                                                            Deg                       N′
                                                                        ┌────┴───┐          ┌──────────┴──────────┐
                                                                      más  C   1           N′                    PP
                                                                                      ┌─────┴─────┐          de la historia
                                                                                      A          N
                                                                                 ┌────┴───┐   jugadores
                                                                               t₁     buenos
```

(61)

```
                                    t
                ┌───────────────────┴───────────────────┐
              Estos                                    ⟨e,t⟩
                e           ┌──────────────────────────────┴──────────────┐
                           BE                                           ⟨⟨e,t⟩,t⟩
                ⟨⟨⟨e,t⟩,t⟩,⟨e,t⟩⟩        ┌──────────────────────────────────┴──────┐
                                      algunos                                    ⟨e,t⟩
                                  ⟨⟨e,t⟩,⟨⟨e,t⟩,t⟩⟩          ┌──────────────────────┴────────┐
                                                           de                              e
                                                        ⟨e,⟨e,t⟩⟩      ┌───────────────────┴────────┐
                                                                      los                         ⟨e,t⟩
                                                                   ⟨⟨e,t⟩,e⟩      ┌─────────────────┴────────┐
                                                                        ⟨⟨d,⟨e,t⟩⟩,⟨e,t⟩⟩            ⟨d,⟨e,t⟩⟩
                                                               ┌──────────────┴─────┐          ┌──────┴──────┐
                                                             más                    C          A          jugadores
                                                    ⟨⟨e,t⟩,⟨⟨d,⟨e,t⟩⟩,⟨e,t⟩⟩⟩    ⟨e,t⟩      ┌──┴───┐        ⟨e,t⟩
                                                                                           t₁    buenos
                                                                                           d     ⟨e,t⟩
```
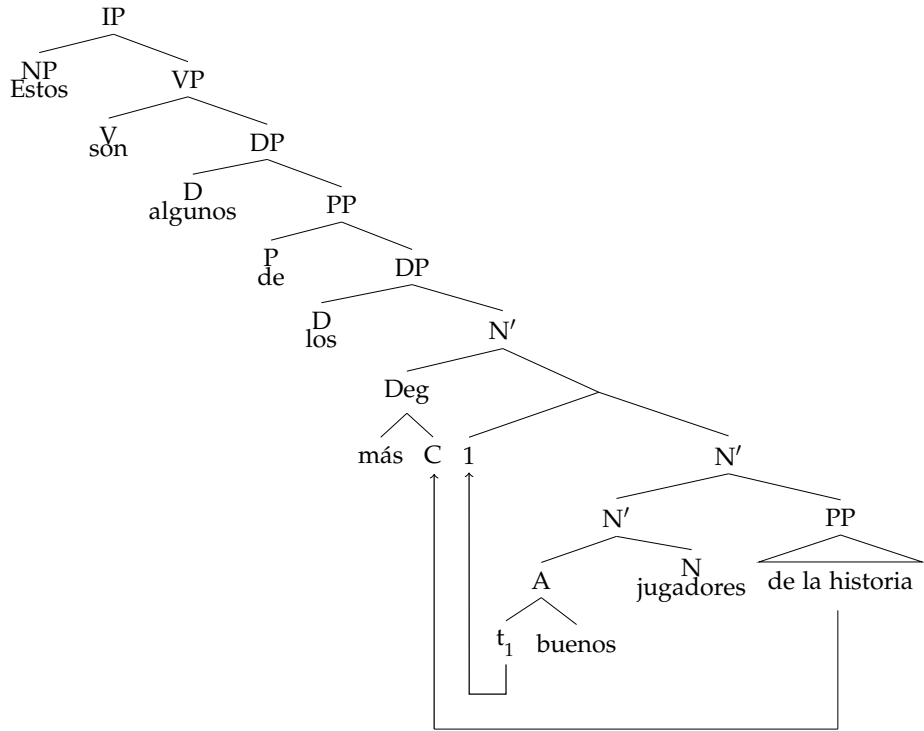
(62)   a.   ⟦*d-buenos jugadores*⟧ = $\lambda d.\lambda x.$jugadores$(x) \wedge$ buenos(x,d)

b.   ⟦*más*⟧ = $\lambda C_{\langle e,t\rangle}.\lambda P_{\langle d,et\rangle}.\lambda x_e.\exists d[P(x,d) \wedge \forall y[y \neq x \wedge y \in C \to \neg P(y,d)]]$

c.   ⟦*más d-buenos jugadores de la historia*⟧ = $\lambda x_e.\exists d[$jugadores$(x) \wedge$ buenos$(x,d) \wedge$
     $\forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \to \neg P(y,d)]]$

d. $[\![los]\!] = \lambda P.\iota x.P(x)$

e. $[\![los\ más\ d\text{-}buenos\ jugadores\ de\ la\ historia]\!] = \iota x_e.\exists d[\text{jugadores}(x) \wedge \text{buenos}(x,d) \wedge$
$\forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \rightarrow \neg P(y,d)]]$

f. $[\![de]\!] = \lambda v.\lambda w.[w < v]$

g. $[\![de\ los\ más\ d\text{-}buenos\ jugadores\ de\ la\ historia]\!] = \lambda w.[w < \iota x_e.\exists d[\text{jugadores}(x) \wedge$
$\text{buenos}(x,d) \wedge \forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \rightarrow \neg P(y,d)]]]$

h. $[\![algunos]\!] = \lambda P_{\langle e,t\rangle}.\lambda Q_{\langle e,t\rangle}.\exists u[P(u) \wedge Q(u)]$

i. $[\![de\ la\ historia]\!] = C = \{x: x\ \text{is a player in history}\}$

j. $[\![algunos\ de\ los\ más\ d\text{-}buenos\ jugadores\ de\ la\ historia]\!]$
$= \lambda Q.\exists u[u < \iota x_e.\exists d[\text{jugadores}(x) \wedge \text{buenos}(x,d) \wedge \forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \rightarrow$
$\neg P(y,d)]] \wedge Q(u)]$

k. $[\![BE]\!] = \lambda P_{\langle\langle e,t\rangle,t\rangle}.\lambda z.P(\lambda z'.z = z')$

l. $[\![[BE\ [algunos\ de\ los\ más\ d\text{-}buenos\ jugadores\ de\ la\ historia]]]\!]$
$= \lambda P_{\langle\langle e,t\rangle,t\rangle}.\lambda z.P(\lambda z'.z = z')\ (\lambda Q.\exists u[u < \iota x_e.\exists d[\text{jugadores}(x) \wedge \text{buenos}(x,d) \wedge$
$\forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \rightarrow \neg P(y,d)]] \wedge Q(u)])$
$= \lambda z.[[\lambda Q.\exists u[u < \iota x_e.\exists d[\text{jugadores}(x) \wedge \text{buenos}(x,d) \wedge \forall y[y \neq x \wedge y \in$
$C_{\langle e,t\rangle} \rightarrow \neg P(y,d)]] \wedge Q(u)]](\lambda z'.z = z')]$
$= \lambda z.[\exists u[u < \iota x_e.\exists d[\text{jugadores}(x) \wedge \text{buenos}(x,d) \wedge \forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \rightarrow$
$\neg P(y,d)]] \wedge [\lambda z'.z = z'](u)]]$
$= \lambda z.\exists u[u < \iota x_e.\exists d[\text{jugadores}(x) \wedge \text{buenos}(x,d) \wedge \forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \rightarrow$
$\neg P(y,d)]] \wedge z = u]$
$= \lambda z.[z < \iota x_e.\exists d[\text{jugadores}(x) \wedge \text{buenos}(x,d) \wedge \forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \rightarrow$
$\neg P(y,d)]]$

m. $[\![Estos\ son\ algunos\ de\ los\ más\ d\text{-}buenos\ jugadores\ de\ la\ historia]\!]$
$= 1\ \text{iff}\ [z < \iota x_e.\exists d[\text{jugadores}(x) \wedge \text{buenos}(x,d) \wedge \forall y[y \neq x \wedge y \in C_{\langle e,t\rangle} \rightarrow$
$\neg P(y,d)]]]$

The following assumptions have been made with regard to this analysis:

1. The superlative operator *más* (*-est*) is the specifier of a Degree Phrase (Farkas and Kiss, 2000; Gutiérrez-Rexach, 2006).

2. At LF, DegP is the sister of a constituent expressing a property that relates players to their degree of "betterness" (Heim, 2004; Romero, 2013). The superlative operator combines with the context variable *C*. This variable determines the comparison set defined by the adjunct PP *de la historia*, i.e., the set or class of all players in history.

3. The superlative downstairs DP is a definite NP of type *e*, as a consequence of the *iota*.

4. The partitive preposition *de* ("of") is of type $\langle e, \langle e, t \rangle \rangle$. I follow Barker (1998) in his treatment of proper partitivity, which is semantically expressed as $\lambda x.\lambda y.(y < x)$. The difference with Ladusaw (1982)'s version is our use of ¡ instead of $\leq$.

5. The indefinite *algunos* is a typical determiner of type $\langle \langle e, t \rangle, \langle \langle e, t \rangle, t \rangle \rangle$, and the entire partitive DP is of type $\langle \langle e, t \rangle, t \rangle$ (semantic denotation in (62j)).

6. Due to the semantic types for the determiner and its DP, we include an extra step in the derivation, appealing to the BE type-shift (Partee, 1986). The indefinite NP in object position is then type-shifted into an $\langle e, t \rangle$ meaning, and the demonstrative pronoun *estos*, "these", fills the required type *e*.

Taking the semantics specified above into account, the question to ask is whether *unos* can be analyzed in the similar terms. We have evidence from the corpus that there is a significant number of examples of *unos* that patterns with *algunos* and the downstairs D constituent. We also have the intuition inspired by Le Bruyn (2010) that the superlative might be the element that licences *unos* in these contexts. In consequence, the next step is to try to explain the interaction between the determiner and the superlative on the basis of the previous semantic descriptions. This is the topic of the last subsection of this thesis.

3.3 The interaction between *unos*, partitives and superlatives

The semantics sketched above is compatible with the treatment of *algunos* that has been offered in the literature. However, in the case of *unos*, it is not immediately clear that we can use the same analysis. The main obstacle seems to be the lack of partitive content of *unos*. In consequence, I must clarify some aspects of the relation between *unos* and superlatives, and how this explanation can account for the partitive content of the sentences in question. First, consider two of the denotations *unos* has received in semantics:

(63) ⟦*unos*⟧ =

    a. $\lambda P_{\langle\langle e,t\rangle\rangle}.\lambda Q_{\langle\langle e,t\rangle,t\rangle}.\exists x \subseteq P[|x| > 1 \wedge Q(P)]$

    b. $\lambda P_{\langle\langle e,t\rangle\rangle}.\lambda Q_{\langle e,t\rangle}.\exists x[Mol(x) \wedge P(x) \wedge Q(x)]$

The entry in (63a) is the one proposed by Gutiérrez-Rexach (1999). The denotation in (63b) is from Martí (2009), where "Mol" stands for molecular or plural individual (p. 120). I assume this denotation is compatible with (if not equivalent to) Le Bruyn (2010)'s semantics for *unos* in NPs of the form *unos N* (p. 14). Against Gutiérrez-Rexach, I fully endorse the second alternative for several reasons. One has to do with the results from the corpus study, which suggest that *unos* is acceptable in partitive contexts with downstairs superlatives. An implication of this is the possibility to acknowledge that the semantic contribution on *unos* cannot be the one in (63a), otherwise (61) with *unos* would inevitably crash.

A second reason is that Martí/Le Bruyn's version is theoretically stronger because it is more simple. It is difficult to see how describing *unos* as (63a) can explain the semantic behaviour of this determiner in the different contexts where it is allowed. In contrast, (63b) accounts for the data without introducing a complex higher property in the semantics of the plural indefinite. Assuming this semantics for *unos* correctly predicts the behaviour of *unos de los N* when the noun is a downstairs superlative embedded in of-PP partitives, and presumably in every other context considering their particular aspects.

It must be noted, however, that this view does not necessarily forces us to admit that *unos* has partitive content. My argument only claims that *unos* is allowed in this specific context because the partitive with superlative has certain conditions that derive in well-formed DPs. To make this clear, I first assume that *algunos* in *algunos de los mejores jugadores* is a pseudo-trantisitve determiner in the sense of Hoeksema (1984), but *unos* is not. Consider the contrast in (64):

(64)   a. *??unos/algunos de los libros de lingüística*
            UNOS/some   of the books of linguistics
            'some of the linguistics books.'

b. *unos/algunos libros   de lingüística*
   UNOS/some books of linguistics
   'some linguistics books.'

c. *unos/algunos de los mejores libros de lingüística*
   UNOS/some of the best   books of linguistics
   'some of the best linguistics books.'

Just as in the case of English "some", *algunos* has partitive and non-partitive readings. On the other hand, *unos* is semantically odd in a full partitive context. Nevertheless, as we have discussed throughout this section, the partitive DP with a downstairs superlative allows *unos* to be in the upstairs position. This fact finally leads us to take stock. After considering the analysis presented in 3.2, and the observations mentioned with regard to (61) to (63), I have gathered the necessary elements to put forward the main claim of this section. The reason *unos* can precede *of*-PPs with downstairs superlatives such as *los mejores jugadores de la historia* is that the semantics of the superlative operator (described in terms of Heim (2004)'s proposal) turns superlative DPs into a special case of (covert) partitives. In the same way, the overall conclusion can be explained as the result of at least three related factors:

(i) The first factor has to do with the semantics of the superlative operator. From a structural point of view, the context variable in the scope of the superlative receives its value from a partitive coda. In our target sentence, this coda is *de la historia*, 'in history', and its function is to delimit the set of all players in history (A). From this set, the degree operator takes a proper subset (B), the condition being that its members must have the extreme degree of the property, the best players in the example sentence. Finally, the partitive "of" and the partitive determiner *algunos*, 'some', pick up an extra set (C), which corresponds to a group of elements from the previous set. Using "all" would give the same set, and "none" the empty set. (See factor (iii) below for *unos*).

(ii) The second factor is related to the definite nature of the downstairs DP. According to the reanalysis of the Partitive Constraint in de Hoop (1997), "the embedded NP actually *denotes* a contextually determined set of entities" (p. 162). The same idea is expressed in de Swart

(1998) as an observation about the nature of the "specific, non-empty, contextually fixed set" quantified over by the upstairs determiner (p. 183). We know that definite NPs provide such contextually fixed sets, and we can predict that weak determiners can appear in upstairs D position of partitives because they quantify over the set denoted by the DP with which they combine (Alonso-Ovalle and Menéndez-Benito, 2002, p. 12). The indefinite *unos* does not interact with the partitive in the way *algunos* does because its semantic contribution is limited to the introduction a group variable in the discourse. Thus, this second factor is relevant for the case of *unos* because the presupposition of non-emptiness is triggered by the definite determiner of the superlative.

(iii) The third factor rests on proper partitivity and the semantic import of the *of*-PP. The upstairs determiner must quantify over a proper subset of the downstairs nominal constituent to ensure this relation: ($y < x$) (Barker, 1998). Spanish *algunos* is not only a quantificational determiner, but it also has the property of triggering a non-emptyness presupposition, and thus it is allowed in full partitives without problem. Crucially, *unos* is also quantificational. Although it is non-presuppositional, the partitive relation only requires from it that the following cardinality takes place: $|\text{unos}(y)| \geq 2 \wedge\ < x$.

The previous analysis has alternative implications for other downstairs DPs. The generalisation is that *unos* is exempt from the presuppositional and partitive requirements as long as they are set up by the context variable of the superlative, its definite determiner, and the semantic import of the partitive *of*-PP. Note that the order of these elements corresponds to a bottom-up approach to the semantics of natural language sentences, as function application is usually understood. Moreover, the analysis would correctly predict other cases where *unos* seems acceptable (at least from the corpus perspective), such as downstairs DPs with relative complements (65) and prepositional complements:

(65) *Juan no encuentra unos de los libros que le diste.*
Juan not find *unos* of the books that to-him give.PST
'Juan does not find some of the books that you gave him'.

<div align="right">(adapted from Gutiérrez-Rexach (2001))</div>

(66) *También nos   hemos encontrado con   algunas limitaciones de*
      too   REFL have find-PTCP with some   limitations of
      funcionamiento, que son unas de las causas de la   falta de
      functioning   that are UNAS of the causes of the lack of
      visibilidad.
      visibility
      'We have also found some operational limitations, which are some
      of the reasons for the lack of visibility.'   (CEA)

Although these cases have been ruled out by the theoretical approaches
to partitivity and the semantics of *unos*, we consistently find instances of
them in corpus data. Notwithstanding its limitations, the analysis I have
provided in this section suggests that there are specific semantic reasons
supporting the atypical behaviour of *unos*. An important implication of
this study is that it provides an alternative for explaining real data about
the Spanish determiner *unos* without appealing to a simple description in
terms of dialectal variation. I am aware that my native dialect feels closer
to the empirical results from the corpus study, but accounting for them by
means of a proposal like the one presented above seems to be a reasonable
way of avoiding that kind of natural bias.

4   Summary and conclusions

The purpose of this thesis was to analyse the Spanish plural indefinite *unos* in relation to contexts of partitivity. According to the semantic literature (Villalta, 1994; Laca and Tasmowski, 1996; Gutiérrez-Rexach, 1999, 2001, 2003b, 2010; Martí, 2008, 2009; Le Bruyn, 2009, 2010; Pozas Loyo, 2010), *unos* lacks proportional content, and therefore it is normally infelicitous in the head position of partitive DPs. The present study offered an overview of the literature, providing an up-to-date theoretical background for this topic (section 1). The different accounts seem to converge on the same argument: as a collectivizer, *unos* introduces a group discourse referent, and its parts cannot be accessed individually to allow for proportional readings. Furthermore, *unos* is a quantificational determiner but it crucially lacks presuppositional import.

In addition to the theoretical overview, data from corpus research were gathered to provide empirical support to the claims about *unos*. The results from previous corpus research by Le Bruyn (2010) suggested that, indeed, *unos* cannot appear in the subject position of individual-level predicates, preceding elliptical nouns, or in the upstairs D position of full partitives. However, there is a certain context where *unos* is not incompatible with overt partitivity. Gutiérrez-Rexach (2001) first noticed it and Le Bruyn found 27 cases in the data from the CREA. In particular, *unos* seems to be allowed in the upstairs D position of full partitives with downstairs D superlatives. My own study (section 2), carried out on a different corpus, confirmed Le Bruyn's findings not only for the three environments, but also for the exceptional downstairs D superlatives. After cleaning the data, I obtained 188 acceptable instances of *unos* in this overt partitive context.

Following Le Bruyn's suggestion, I provided a detailed analysis of this type of full partitive DPs (section 3). This semantic analysis was intended to explain why *unos* is licensed in those partitive contexts, without having to abandon the idea that *unos* itself lacks partitive content. My proposal adapted Heim (2004)'s influential semantic analysis of English superlatives to Spanish. I used Gutiérrez-Rexach (2001)'s example as a target sentence for my analysis: *Estos son unos/algunos de los mejores jugadores de la historia*, 'These are some of the best players in history'. Particularly

in superlatives with restrictive codas such as "in history" in the target example, an absolute interpretation is more evident (if not obligatory). According to Heim's proposal, the semantics of the superlative operator *-est* in English takes into account a variable C, and those contextually defining codas usually assign the value of the variable. The superlative operator is a 3-place function, so in addition to the context variable, it takes a set of individuals and a degree property. In the light of these observations, I provided semantic representation of the target sentence with *algunos*, which would normally work under any circumstances.

I then turned to my proposal that the interaction between the semantics of the Spanish superlative *más* and the partitive PP was responsible the presence of *unos* in the head position of full partitives. First, I took distance from the semantics for *unos* provided by Gutiérrez-Rexach (2001), which assigned this determiner a semantic type incompatible with the correspondent version of the target sentence. I followed Martí (2009) and Le Bruyn (2010) in their more simple hypothesis with regard to the semantic contribution of NPs such as *unos N*, which predicts that the basic contribution of *unos* is similar to that of *algunos*. With these elements at hand, I was able to identify three factors that come into play in licensing *unos* in full partitives:

1. The first factor rests on the semantics of the superlative operator. From a structural point of view, the context variable in the scope of the superlative receives its value from a partitive coda. In our target sentence, this coda is *de la historia*, 'in history', and its function is to delimit a set from which the degree operator can take a proper subset.

2. The second factor is the fact that superlatives are definite DPs. In partitive constructions, this means that they provide contextually fixed sets for the upstairs determiner to pick up members according to its specific properties. It is true that *unos* cannot trigger the non-emptyness presupposition, but it certainly doesn't need to. The definiteness effect exempts the determiner from this requirement because superlative are essentially definite NPs. *Unos* merely introduces the group discourse referent, and the rest is done by other elements in the structure.

3. The third factor is found in the proportional PP. To a limited extent, the partitive of-PP provides the appropriate conditions for a well-formed full partitive DP. English "some" is ambiguous between partitive and non-partitive readings, and thus "some of the NP" is perfectly fine as long as the NP is definite. The situation for Spanish *algunos* is the same. As for *unos*, the condition that matters the most is that the downstairs DP must be definite and have a restrictive coda. Superlatives, relative clauses and possessives are examples of this condition, and therefore they allow *unos* to appear in the upstairs position of such partitives.

In other words, the presence of *unos* is possible in the upstairs D position of full partitives providing that the proportional PP selects a definite DP with a context variable. Partitivity is expressed as a well-formed sentence when, in a bottom-up manner, the context C is specified, the definite receives a reference, and the upstairs determiner quantifies over a proper subset of the downstairs NP. Spanish *algunos* in this and other contexts independently triggers the non-emptiness presupposition, while *unos* leaves this task to the definite and richly specified downstairs DP.

Further studies on the semantics of Spanish determiners should be undertaken to gain a better understanding of atypical contexts. Corpus research turns out to be a very important tool to find real cases of indefinite phrases that have not received enough attention. For instance, the corpus I used in this study will soon be updated to allow faster queries, and the number of words will be raised to more than 1,000 million words (Prof. Carlos Subirats, p.c.). This will definitely increase the potential of this corpus, making it an even more valuable for researchers interested in Hispanic linguistics. Furthermore, research methodologies could be improved to obtain more and better data, and thus tackle the striking complexity of the Spanish language in all its varieties.

Some theoretical discussions about *unos* require further research as well. On the one hand, it would be interesting to move forward the debate on the compositional approach to words. The fact that superlatives can be considered as an example of this type of compositionality is already a symptom of the need to discuss such view. More information on the

advantages and weaknesses of this approach would help us to assess its value for the study of meaning in natural language.

Another dimension of the discussion presented in this thesis that was not addressed is the possibility of including superlatives and other definite DPs in a more comprehensive approach to the semantics of indefinites from the perspective of focus. This intuition comes from the fact that all restrictions on *unos* are blocked if a contrastive element is present and helps this determiner to behave differently. Under the assumption that the specification of contextual variables is a focus marking strategy, we could entertain the idea that superlatives, relative clauses and other context establishing constituents are part of a complex class of contrastive focus elements.

Finally, from a cross-linguistic point of view, we should not forget that the partitive properties of determiners seem to be language-specific (de Hoop, 2003). We can think of the difference between *algunos* and *unos* in terms of the difference between English *some* (strong) and *sm* (weak). However, the actual differences might not be as straightforward as they seem. Languages encode their internal differences in ways that are not still completely clear for linguists, so more work will need to be done if we want to understand them. For instance, Matthewson (2009) studied an interesting quantifier in St'át'imcets (Lillooet Salish), in which the properties of weak and strong "some" seem to converge. In this sense, perhaps it is not too difficult to entertain the idea of a continuum of "partitivity markedness", where determiners in Spanish, English, St'át'imcets and all other languages have closely related or thoroughly different places.

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