

THE SEMANTICS OF PLURAL INDEFINITES IN SPANISH AND PORTUGUESE¹

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Abstract. In this paper I provide a compositional analysis of three kinds of plural indefinites, in two related languages, European Spanish and Brazilian Portuguese. The three indefinites studied are bare plurals, the *unos* (Spanish)/*uns* (Portuguese) type, and the *algunos* (Spanish)/*alguns* (Portuguese) type. The paper concentrates on five of their properties: whether they are semantically plural, whether they are positive polarity items, whether they give rise to partitivity and event distribution readings, and whether they are context-sensitive. The logic underlying the analysis is that, as items become bigger in their form, they acquire more semantic properties. The paper thus pursues an analysis based on the idea that the match between form and meaning is transparent.

1 Introduction

This paper is concerned with the properties of the indefinites in (1), from E(uropean) Spanish, and (2), from B(razilian) Portuguese):

- (1) *ESpanish*
niños, *unos* niños, *algunos* niños
'children, *unos* children, *algunos* children'
- (2) *BPortuguese*
meninos, *uns* meninos, *alguns* meninos
'children, *uns* children, *alguns* children'

Unos/algunos and *uns/alguns* have feminine versions, *unas/algunas* and *umas/algumas*, respectively, and nouns in the two languages also inflect for gender. The properties of interest here are summarized in Table 1 and Table 2:²

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² E(uropean) Portuguese behaves in many respects more like ESpanish than like BPortuguese. See below.

| | BARE PLURALS | UNOS | ALGUNOS |
|------------------------|--------------|------|---------|
| semantic plurality | ✗ | ✓ | ✓ |
| positive polarity item | ✗ | ✓ | ✓ |
| event distribution | ✓ | ✗ | ✓ |
| partitivity | ✗ | ✗ | ✓ |
| context sensitivity | ✗ | ✗ | ✓ |
| genericity | ✓ | ✗ | ✗ |
| existential import | ✓ | ✓ | ✓ |

Table 1 *ESpanish*

| | BARE PLURALS | UNS | ALGUNS |
|------------------------|--------------|-----|--------|
| semantic plurality | ✓ | ✓ | ✓ |
| positive polarity item | ✗ | ✓ | ✓ |
| event distribution | ✗ | ✓ | ✓ |
| partitivity | ✗ | ✗ | ✓ |
| context sensitivity | ✗ | ✗ | ✗ |
| genericity | ✓ | ✗ | ✗ |
| existential import | ✓ | ✓ | ✓ |

Table 2 *BPortuguese*

This paper focuses on the first five properties in each table. The tables include two additional properties, existential import and genericity, because, even though I will not be discussing them in detail, I will occasionally make reference to them.

Some of the important issues addressed in the paper are as follows. First, how can we make sense of the fact that there is a scale (bare plural > *unos/uns* > *algunos/alguns*) where semantic properties are generally³ acquired as we progress in it? This is the most important question addressed here, and the answer I adopt is quite straightforward: it is not an accident, since in their form, the items also get bigger and bigger.

The transparent form-meaning hypothesis limits the explanation space. For example, it forces us to postulate that *unos* and *uns* share a common semantics, and that the same goes for *algunos* and *alguns*. Both *unos* and *uns* have existential import and are positive polarity items and semantically plural. In the present framework, this is related to the fact that they look alike morphologically. The fact that they differ in whether they give rise to event distribution must be treated as a separate property according to the underlying logic (cf. Gutiérrez-Rexach 2001, 2004 on *unos/algunos* and event distributivity). The explanation for the fact that *algunos* and *alguns* make essentially the same contribution has to be that they also look alike in their form. I make sense of this by dividing the work between *alg-*, with very similar semantics in both languages, and *unos/uns*. The lexical semantics of *algunos* and *alguns* is the same up to a contextual variable that the former, but not the latter, makes use of; this contextual variable is used to explain context sensitivity (cf. Martí 2006 for *ESpanish*).

The common noun itself will be the locus of the difference in semantic plurality in the two languages, so I will propose that the lexical semantics of common nouns in *ESpanish* and

³ An exception to this are bare plurals in *ESpanish* (Table 1), since they event distribute and *unos*, which in its form is bigger than them, does not. See below, and also footnote 4.

BPortuguese is different (cf. Laca 1996 and Müller 2002 for discussion on this property). It will turn out that this property is related in an interesting way to the fact that bare plurals can event distribute in ESpanish but not in BPortuguese. This is a welcome result because this property of ESpanish bare plurals is problematic for the logic put forth in this paper: once a feature is acquired in the scale, it shouldn't be lost, but that is exactly what seems to happen in the case of bare plurals and *unos/algunos*.⁴

The analysis has the interesting consequence, as we will see, that plural morphemes on nouns in the two languages have a different status.

The organization of the paper is as follows. In section 2, I discuss the data that supports the description provided in the tables above. Section 3 provides the decompositional analysis in detail. Section 3.1 identifies some of the core ingredients of the analysis, and section 3.2 discusses those aspects of it where the syntax of the indefinites is in some way relevant, such as event distribution and positive polarity. Section 4 is the conclusion.

2 The empirical generalizations

2.1 Semantic plurality

Consider the data in (3) and (4):

(3) *ESpanish*

a. John: ¿Viste *niños* jugando en el patio?

'Did you see children playing in the garden?'

Mary: Yes, I saw one/#No, I saw only one

b. John: ¿Viste a *unos/algunos* niños jugando en el patio?

'Did you see *unos/algunos* children playing in the garden?'

Mary: #Yes, I saw one/No, I saw only one (based on Laca 1996: 243)

(4) *BPortuguese*

John: Você viu (*umas/algumas*) *crianças* brincando no jardim?

'Did you see (*umas/algumas*) children jumping in the garden?'

Mary: #Yes, I saw one/No, I saw only one (cf. Müller 2002)

(3a), with the ESpanish bare plural *niños* 'children', is a not a question about a semantic plurality. It can be answered positively even though the speaker saw only one child, and it cannot be answered negatively in that same situation. The opposite is true for ESpanish *unos/algunos*, as shown in (3b), and for the three BPortuguese indefinites, as shown in (4). EPortuguese patterns like ESpanish with respect to this property. The generalization about semantic plurality is displayed in Table 3:

⁴ Genericity also seems problematic from this perspective. I relate this property to the fact that bare plurals denote only sets of individuals in both languages (cf. McNally 2004 for ESpanish). They are either generic or have existential import because one can choose to use generic or existential operators later on in the derivation. This idea is of course not new. I offer a few more details about this in section 3.1 below.

| | BARE PLURALS | UNOS/UNS | ALGUNOS/ALGUNS |
|-------------|--------------|----------|----------------|
| ESpanish | ✗ | ✓ | ✓ |
| BPortuguese | ✓ | ✓ | ✓ |

Table 3 Semantic plurality

2.2 Positive Polarity

Unos and *algunos*, like their BPortuguese (and EPortuguese) counterparts, are positive polarity items. Bare plurals in either language are not. I defend here the idea that *unos* and *algunos* are positive polarity items against previous claims to the contrary and against the concern that, if *unos* and *algunos* are positive polarity items, then they seem to ‘misbehave’ in certain cases.

I first present the data concerning ESpanish, then I go on to BPortuguese. The remarks on polarity generally apply to the two languages in similar ways.

Consider first the behavior of the three ESpanish indefinites in the scope of negation, an anti-morphic context:^{5, 6}

- (5) A la reunión no asistieron (**unos/algunos*) profesores
‘To the meeting there didn’t come (*unos/algunos*) teachers’

Despite the fact that (5) with *unos* sounds initially grammatical, speakers are not able to provide contexts in which the sentence would be true, which suggests that the sentence is semantically anomalous. The sentence with the bare plural is grammatical and true in those situations in which no teachers attended the meeting (i.e., the bare plural gets obligatory narrow scope with respect to negation; cf. Gutiérrez-Rexach 2001, 2004, Laca 1996, McNally 2004). The sentence with *algunos* is grammatical but, interestingly, unambiguous: *algunos* must scope above negation, so that the sentence is true only in those situations in which some teachers attended the meeting and others didn’t, and it sounds strange if no teachers came at all.⁷

⁵ Some well-known references about polarity, both positive and negative, are Giannakidou (1997), Kadmon and Landman (1993), Ladusaw (1979), Linebarger (1987), Nilsen (2004), van der Wouden (1997) and vanden Wyngaerd (1999), among others.

⁶ A function f is anti-morphic iff: (i) $f(a \wedge b) = f(a) \vee f(b)$ and (ii) $f(a \vee b) = f(a) \wedge f(b)$. Sentential negation as in (5) is anti-morphic because (i) ‘John didn’t sing and dance’ is equivalent to ‘John didn’t sing or John didn’t dance’, and (ii) ‘John didn’t sing or dance’ is equivalent to ‘John didn’t sing and John didn’t dance’. If an item has property (i), it is anti-multiplicative. If it has property (ii), it is anti-additive. Negation is then both anti-multiplicative and anti-additive.

⁷ Focus on the indefinite, as in (ia), or the addition of a relative clause to the indefinite noun phrase, as in (ib), can improve (5):

- (i) a. A la reunión no asistieron *UNOS* profesores
b. A la reunión no asistieron *unos profesores que conozco*
‘To the meeting there didn’t come *unos* teachers that I know’

Negation is of course one of the contexts that licenses negative polarity items such as the idiomatic *decir ni pío* ‘to say anything’:

- (6) a. Pepita no dijo ni pío
‘Pepita said nothing’
- b. *Pepita dijo ni pío

The contrasts in (5) and the ones below are quite clear, and the speakers I have consulted have confirmed my own intuitions. It is important to point this out because this is contra the received wisdom in the literature. Gutiérrez-Rexach (2001: 146, 2004: 442), Laca (1996: 253) and McNally (2004: 120) all claim that both *unos* and *algunos* can scope under negation, so that the only difference between them and bare plurals is that bare plurals do so obligatorily. This description, however, does not seem to be correct.⁸

The behavior of these indefinites in anti-additive contexts, which have been identified in the literature as polarity contexts as well, further confirms the status of *unos* and *algunos* as positive polarity items.⁹

- (7) a. Todos los estudiantes que compraron (**unos/algunos*) *apuntes* suspendieron el examen
‘All the students who bought (*unos/algunos*) notes failed the exam’
- b. Noelia vino a la fiesta sin (**unas/algunas*) *botellas*
‘Noelia came to the party without (*unas/algunas*) bottles’
- c. Teresa se negó a besar a (**unos/algunos*) *estudiantes*
‘Teresa refused to kiss (*unos/algunos*) students’

That focus improves otherwise anomalous sentences with positive polarity items has been noted before (see, e.g., vanden Wyngaerd 1999) and is hence not surprising. To my knowledge, it hasn’t been noted before that relativization of the noun phrase in question might also play a role. It is true for English *some*:

- (ii) a. *I didn’t see some students
- b. I didn’t see some students that I know

We will have to take this into account in our theories of positive polarity items. I don’t think, however, that the fact that no theory of (positive) polarity can make sense of this fact is grounds for rejecting the status of *unos*, *algunos* or *some* as positive polarity items.

⁸ It may of course be that we have identified two different dialects, one with the judgements I report and the other with the judgements reported in the literature. We need to determine whether that is the case and then consider the consequences. For the moment, I will stick to the judgements I have been able to confirm.

⁹ For example, *refuse* is anti-additive (see footnote 5) because ‘John refused to eat or drink’ is equivalent to ‘John refused to eat and John refused to drink’. It is not, in addition, anti-morphic because ‘John refused to eat and drink’ is not equivalent to ‘John refused to eat or John refused to drink’. ‘John refused to eat and drink’ means that he refused to do both things, but ‘John refused to eat or John refused to drink’ can be true in a situation in which he refuses to do only one of the two and does the other.

The examples in (7) with *unos* are semantically anomalous. With the bare plural they are all fine (and they get only narrow scope readings of the indefinite, as expected). With *algunos*, only wide scope readings obtain. For example, (7b) with *algunos* is not true in a situation in which Noelia came without bottles, she needs to have brought some and left others. Compare the status of (7b) and (7c) with the ‘positive’ and non-anomalous (8a) and (8b), respectively:

- (8) a. Noelia vino a la fiesta con (*unas/algunas*) botellas
 ‘Noelia came to the party with (*unas/algunas*) bottles’
 b. Teresa insistió/quiso besar a (*unos/algunos*) estudiantes
 ‘Teresa insisted in kissing/wanted to kiss (*unos/algunos*) students’

Decir ni pío is licensed under *sin* ‘without’ and under *negarse* ‘to deny’, but not in the first argument of *todos* ‘all/every’:

- (9) a. *Todos los estudiantes que dijeron ni pío suspendieron el examen
 ‘All the students who said anything failed the exam’
 b. Noelia vino a la fiesta sin decir ni pío/*diciendo ni pío
 ‘Noelia came to the party without saying anything/saying anything’
 c. Teresa se negó a decir ni pío/*insistió en decir ni pío
 ‘Teresa refused to say anything/insisted on saying anything’

The fact that not all anti-additive contexts license the negative polarity item *decir ni pío* is important because *unos* and *algunos* are fine when in certain monotone-decreasing contexts but anomalous when in others: they are not licensed under *pocos* ‘few’, but they are licensed under *como mucho n N* ‘at most n N’ and in (yes/no) questions. The contexts in (10) are monotone-decreasing without being anti-additive or anti-morphic:¹⁰

- (10) a. Pocos estudiantes compraron (**unos/*algunos*) libros
 ‘Few students bought (*unos/algunos*) books’
 b. Como mucho tres estudiantes fumaron (*unos/algunos*) porros
 ‘At most three students smoked (*unos/algunos*) joints’
 c. ¿Has visto (a *unos/a algunos*) estudiantes paseando por la avenida?
 ‘Have you seen (*unos/algunos*) students taking a walk in the street?’

That is, the fact that *unos* and *algunos* do not behave uniformly with respect to monotone-decreasing contexts (that are neither anti-additive nor anti-morphic) is not grounds for rejecting the idea that they are positive polarity items, because there are negative polarity items such as *decir ni pío* that also do not behave uniformly with respect to a particular kind of polarity context. We want to understand, of course, why this is so, but the point that is of

¹⁰ A function is monotone-decreasing if it reverses entailments, that is, if whenever $a \rightarrow b$, $f(b) \rightarrow f(a)$. *Few* is monotone decreasing. ‘John bought apples’ entails ‘John bought fruit’, but with *few* the entailment goes the other way around: ‘John bought few pieces of fruit’ entails ‘John bought few apples’. Notice that the contexts we have identified so far are in a subset-superset relation:

- (i) Anti-morphic contexts \subseteq Anti-additive contexts \subseteq Monotone-decreasing

relevance here is that non-uniform behavior with respect to a particular kind of context is not grounds for rejecting the polarity status of the item in question.¹¹

Decir ni pío is licensed under *pocos* ‘few’, but not under *como mucho n N* ‘at most n N’ or in (yes/no) questions:

- (11) a. *Pocos estudiantes dijeron ni pío cuando se cambió la fecha del examen*
‘Few students said anything when the date of the exam was changed’
b. **Como mucho tres estudiantes dijeron ni pío cuando se cambió la fecha del examen*
‘At most three students said anything when the date of the exam was changed’
c. **¿Piensas que Lola dijo ni pío al cambiarse la fecha del examen?*
‘Do you think that Lola said anything when the date of the exam was changed?’

BPortuguese and EPortuguese behave similarly to ESpanish. The BPortuguese data are in (12)-(14):

- (12) *Àquela reunião, não vieram (*uns/alguns) professores*
‘To that meeting there didn’t come (*uns/alguns*) teachers’
- (13) a. *Todos os estudantes que perderam (*umas/algumas) classes foram mal no exame*
‘All the students that missed (*umas/algumas*) classes did badly in the exam’
b. *João veio para a festa sem trazer (*umas/algumas) bebidas*
‘John came to the party without bringing (*umas/algumas*) drinks’
c. *Joana recusou-se a beijar (*uns/alguns) estudantes*
‘Joanna refused to kiss (*uns/alguns*) students’
- (14) a. *Poucos alunos trouxeram (*uns/alguns) livros*
‘Few students bought (*uns/alguns*) books’
b. *No máximo três alunos fumaram (*uns/alguns) cigarros*
‘At most three students smoked (*uns/alguns*) cigarettes’
c. *Você viu (*uns/alguns) estudantes andando na rua?*
‘Have you seen (*uns/alguns*) students walking in the street?’

Notice that there are some differences between ESpanish and BPortuguese, such as between (10b) and (14b). I have no explanation for such contrasts and thus take the generalization displayed in Table 4 to be good enough for our purposes:

| | BARE PLURALS | UNOS/UNS | ALGUNOS/ALGUNS |
|--------------------|--------------|----------|----------------|
| <i>ESpanish</i> | ✗ | ✓ | ✓ |
| <i>BPortuguese</i> | ✗ | ✓ | ✓ |

Table 4 Positive polarity

¹¹ Notice that *algunos* seems to be anomalous with *pocos* ‘few’, as shown in (10a). I suspect that speakers might have had this reaction to (10a) because special intonation accompanies the wide scope of *algunos*, and they may have failed to realize this.

2.3 Event distribution

This is the property that is the most problematic from the perspective of the logic that underlies the analysis in this paper. *Algunos*, *alguns*, *uns* and ESpanish bare plurals event distribute, *unos* and BPortuguese bare plurals do not. EPortuguese behaves like ESpanish and not like BPortuguese in this respect. Given our logic, the following questions will arise for the analysis. First, if as items become bigger in their form they also become more loaded semantically, why can ESpanish bare plurals event distribute, but *unos* cannot? *Unos* certainly counts as bigger in its form than the bare plural. And second, if *unos* and *uns* are alike in form, why can the latter, but not the former, event distribute? We will come back to these questions in section 3.1.

Consider first the ESpanish sentences in (15):

- (15) *(Algunos/unos) estudiantes míos de historia* vinieron ayer al despacho
'(Algunos/unos) history students of mine came to the office yesterday'

And consider two kinds of scenario. In the event distribution scenario, the students who came to the office yesterday did so one by one. In the non-event-distribution scenario, the students who came to the office yesterday arrived together. The sentence with *algunos* is possible in both scenarios, the sentence with *unos* is impossible in the event distribution scenario, and the sentence with the bare plural is possible in both scenarios. Gutiérrez-Rexach (2001, 2004) uses the *entre todos* 'together'/*cada uno* 'each' test to confirm these intuitions, though, for reasons I don't understand, the test does not apply to bare plurals:

- (16) a. *Algunos estudiantes míos de historia* se comieron una tarta entre todos/cada uno
b. *Unos estudiantes míos de historia* se comieron una tarta entre todos/*cada uno
c. **Estudiantes míos de historia* se comieron una tarta entre todos/cada uno
'(Algunos/unos) students from my history class ate a pie together/each'
(based on Gutiérrez-Rexach 2001: 133; 2004: 430)

(16c) is ungrammatical with either *entre todos* or *cada uno*, so the test doesn't tell us anything about bare plurals. (16a) and (16b) do contrast in the expected direction: *entre todos* is possible with both *unos* and *algunos* because they both allow non-event-distribution readings, but *cada uno* is possible only with *algunos* because only *algunos* allows event distribution readings. The *todos juntos* 'all together'/*uno a uno* 'one by one' test does work with bare plurals:

- (17) a. *Algunos estudiantes míos de historia* vinieron todos juntos/uno a uno ayer al despacho
b. *Unos estudiantes míos de historia* vinieron todos juntos/*uno a uno ayer al despacho
c. *Estudiantes míos de historia* vinieron todos juntos/uno a uno ayer al despacho

Before going on to the BPortuguese data, I would like to briefly discuss distributivity in the context of Gutiérrez-Rexach's (2001, 2004) and Villalta's (1994) claim that *unos* can never combine with distributive predicates such as *ponerse los pantalones* 'put one's pants on'. This claim is based on examples such as (18):

- (18) **Unos* chicos se pusieron los pantalones
 ‘*Unos* boys put their pants on’

The right generalization concerning *unos* and distributivity, however, has to do with event distribution, as discussed above, and not with whether the predicate is distributive or collective. Consider (19):

- (19) **Unos* chicos se reunieron
 ‘*Unos* boys met’

Whether the predicate is distributive, such as *ponerse los pantalones* ‘to put one’s pants on’ or collective, such as *reunirse* ‘to meet, to get together’ seems to be irrelevant for *unos*; *unos* is ungrammatical in both cases. The syntactic position of the indefinite noun phrase seems to be relevant; compare (18) with (20), where the order subject-verb has been reversed and the sentence is grammatical (or, at the very least, better):

- (20) Se pusieron *unos* chicos los pantalones
 ‘*Unos* boys put their pants on’

Adding material to the sentence also results in improvement:

- (21) a. *Unos* chicos se pusieron los pantalones al llegar al gimnasio
 ‘*Unos* boys put their pants on as soon as they arrived to the gym’
 b. *Unos* chicos se reunieron en la oficina
 ‘*Unos* boys met in the office’

At the moment I don’t know why *unos* behaves in this way (and *algunos* doesn’t). Perhaps a version of Suñer’s (1982) Naked Noun Constraint is at work with *unos*. But the important point for us is that our semantics does not need to deal with the distributivity of predicates; the right property seems to be event distribution.

(22) and (23) exemplify with BPortuguese:

- (22) *Alguns/uns* meninos da minha aula de História vieram me ver no meu gabinete ontem
 ‘*Alguns/uns* boys from my history class came to see me to the office yesterday’
 (23) Durante todo o dia de ontem *alunos meus de História* vieram me ver no meu gabinete
 ‘All of yesterday history students of mine came to see me to the office’

For the bare plural, it was necessary to add *durante todo o dia de ontem* ‘all of yesterday, throughout yesterday’, as in (23). The sentence with *alguns* is possible in both the event distribution and the non-event-distribution scenarios, the sentence with *uns* is also possible in both scenarios, and the sentence with the bare plural is impossible in the event distribution scenario. We can use the same test we used above for ESpanish to confirm these intuitions:

- (24) *Alguns/uns* meninos da minha aula de História comeram uma torta juntos/cada um
 ‘*Alguns/uns* students from my history class ate a pie together/each’

The summary of these results is displayed in Table 5:

| | BARE PLURALS | UNOS/UNS | ALGUNOS/ALGUNS |
|--------------------|--------------|----------|----------------|
| <i>ESpanish</i> | ✓ | ✗ | ✓ |
| <i>BPortuguese</i> | ✗ | ✓ | ✓ |

Table 5 Event distribution

2.4 Partitivity

Algunos and *alguns* induce a partitivity effect, *unos*, *uns* and bare plurals in the two languages do not. The same generalization holds for EPortuguese. As in the previous section, I first discuss ESpanish and then go on to the data from BPortuguese.

Consider (25) (recall (15)):

- (25) a. *Algunos* alumnos míos de historia vinieron ayer a verme al despacho
b. *Unos* alumnos míos de historia vinieron ayer a verme al despacho
c. *Alumnos míos de historia* vinieron ayer a verme al despacho
‘(*Algunos/unos*) history students of mine came to the office to see me yesterday’

Consider a partitive scenario in which I have a big history class, with thirty-five students. Five of them came to my office yesterday. And consider a non-partitive scenario in which I have a very small history class, with only five students. It is those five students who came to my office yesterday. (25a), with *algunos*, is only appropriate in the partitive scenario: there must be history students who didn’t come, in addition to those who came. (25b), with *unos*, and (25c), with a bare plural, do not discriminate between the two scenarios. Given (25b) and (25c), either scenario could be the case.¹²

To confirm these intuitions, consider the continuation *Es una pena que no vinieran todos* ‘It’s a shame that not all came’:

- (26) a. *Algunos* alumnos míos de historia vinieron ayer a verme al despacho. ✓Es una pena que no vinieran todos
b. *Unos* alumnos míos de historia vinieron ayer a verme al despacho. #Es una pena que no vinieran todos
c. *Alumnos míos de historia* vinieron ayer a verme al despacho. #Es una pena que no vinieran todos
‘(*Algunos/unos*) history students of mine came to the office yesterday. It’s a shame that not all came’

This continuation is possible for the sentence with *algunos*, but not for the sentence with *unos* or for the sentence with the bare plural. This is expected if *algunos* induces a partitive effect, which the continuation in (26) makes explicit reference to. As for *unos* and the bare plural, one important speaker reaction was as follows: “it is strange not to say whether other students came or not and then all of a sudden to say that not all came”.

¹² Speakers often report this by saying that, in sentences (25b) and (25c), whether there are other history students of mine who didn’t come “is not important”.

Two notes before moving on to BPortuguese. First, I think that the partitive effect is an implicature, but the *de hecho* ‘in fact’ test, which is widely used in English to test for implicatures, does not distinguish *algunos* from *unos* and bare plurals:

- (27) a. *Algunos* alumnos míos de historia vinieron ayer a verme al despacho. ✓De hecho, vinieron todos.
 b. *Unos* alumnos míos de historia vinieron ayer a verme al despacho. ✓De hecho, vinieron todos.
 c. *Alumnos míos de historia* vinieron ayer a verme al despacho. ✓De hecho, vinieron todos.
 ‘(*Algunos/unos*) history students of mine came to the office yesterday. In fact, they all came’

With the *in fact* test, what we do is deny an implicature, which, according to the description above, should be possible with *algunos* but not with *unos* or the bare plural, since they lack the relevant implicature. However, I don’t think that the conclusion to be drawn from (27) is that the three indefinites have a partitive implicature. Recall that the way I have described *unos* and bare plurals is that they lack the partitive implicature: sentences with *unos* and bare plurals do not tell us whether there are additional students who didn’t come to my office. It is compatible with that state of affairs to add with *de hecho* that all came. In the particular case of *unos* and bare plurals, this is *added* to a previous information state; in the case of *algunos*, we use the *de hecho* continuation to deny an implicature. I take it that the contrast between (26) and (27) is due to the presence of *de hecho*, which allows the hearer to make sense of the strange state the speaker of sentences such as (26a) seems to be in: this speaker does not commit himself to any claims about other students not coming, and then he immediately says that not all came. With *de hecho* in (27b), the hearer is allowed to understand the shift from not caring/knowing, etc. whether there are other students who didn’t come to stating that they all came. That *de hecho* is crucial here can be seen from the fact that (26b) and (26c) improve if *de hecho* is used. (26a) becomes degraded because the continuation suggests that the information that not all the students came was not communicated before, but it was. That (28b) and (28c) are felicitous then indicates that the information that not all students came was not in fact communicated before:

- (28) a. *Algunos* alumnos míos de historia vinieron ayer a verme al despacho. #De hecho, no vinieron todos
 b. *Unos* alumnos míos de historia vinieron ayer a verme al despacho. ✓De hecho, no vinieron todos
 c. *Alumnos míos de historia* vinieron ayer a verme al despacho. ✓De hecho, no vinieron todos
 ‘(*Algunos/unos*) history students of mine came to the office yesterday. It’s a shame that not all came’

In short, *de hecho* is not always a mark of implicature denial, it can also be used to add information that was not implied (or presupposed, or entailed) before. This is why we obtain no contrast in (27), and we have to appeal to (26) and (28) as the contexts in which the difference between *algunos* on the one hand and *unos* and bare plurals on the other can be observed.

The second note is that Laca (1996: 248-251) claims that bare plurals in ESpanish induce a partitive effect. I think that the generalization provided here is the correct one, and that it is not subtly different from what Laca claims: it is not that bare plurals are partitive, it is that they are appropriate both in partitive and in non-partitive scenarios. Perhaps the subtlety of the difference is what caused Laca to claim that bare plurals are partitive.

Now consider BPortuguese, as in (29) and (30) (recall (22) and (23)):

- (29) a. *Alguns* alunos meus de História vieram me ver ontem no meu gabinete
 b. *Uns* alunos meus de História vieram me ver ontem no meu gabinete
 ‘*Alguns/uns* history students of mine came to see me yesterday to the office’
- (30) Durante todo o dia de ontem *alunos meus de História* vieram me ver no meu gabinete
 ‘All of yesterday history students of mine came to see me to the office’

We obtain the contrast in (31) and (32):

- (31) a. *Alguns* alunos meus de História vieram me ver ontem no meu gabinete. #Estou tão feliz por todos os meus alunos de história terem vindo me ver!
 b. *Uns* alunos meus de História vieram me ver ontem no meu gabinete. ✓Estou tão feliz por todos os meus alunos de história terem vindo me ver!
 ‘*Alguns/uns* history students of mine came to see me yesterday to the office. I am so happy that all of my history students came to see me!’
- (32) Durante todo o dia de ontem *alunos meus de História* vieram me ver no meu gabinete. ✓Estou tão feliz por todos os meus alunos de história terem vindo me ver!
 ‘All of yesterday history students of mine came to see me to the office. I am so happy that all of my history students came to see me!’

Alguns, just like *algunos*, induces a partitive effect and a sentence with *alguns* cannot be followed by *Estou tão feliz por todos os meus alunos de história terem vindo me ver* ‘I am so happy that all of my history students came to see me’. *Uns* and bare plurals do not, since such a continuation is possible in sentences that contain them.¹³

The results of this subsection are summarized in Table 6:

| | BARE PLURALS | <i>UNOS/UNS</i> | <i>ALGUNOS/ALGUNS</i> |
|--------------------|--------------|-----------------|-----------------------|
| <i>ESpanish</i> | ✗ | ✗ | ✓ |
| <i>BPortuguese</i> | ✗ | ✗ | ✓ |

Table 6 Partitivity

2.5 Context sensitivity

On top of inducing partitivity, *algunos* is context sensitive (cf. Martí 2006), though none of the other indefinites, in ESpanish or BPortuguese, are. Consider (33):

¹³ The *in fact* test also does not seem to work very well in BPortuguese.

- (33) {Teachers A and B are on an excursion with a group of children, of whom they are in charge. Teacher A comes to teacher B running:}
- a. Teacher A: ¿Te has enterado? *Algunos niños* se han perdido en el bosque
 - b. Teacher A: ¿Te has enterado? *Unos niños* se han perdido en el bosque
'Have you heard? *Algunos/unos* children have gotten lost in the forest'
 - c. Teacher A: ¿Te has enterado? Hay *niños* perdidos en el bosque
'Have you heard? There are lost children in the forest'

In (33a), teacher A says that some of the children him and teacher B are in charge of have gotten lost in the forest, and that there are other children in their care that have not gotten lost. Consider the continuations in (34) and (35):

- (34) {After a few hours, teachers A and B discover that none of the children from their group had actually gotten lost; it was children from a neighboring village:}
- Teacher A: Estamos de suerte: lo que dije antes estaba mal. ¡No tenemos que darle malas noticias a ningún padre!
'We are so fortunate that what I said turned out to be false – we don't have to give bad news to any parent!'
- (35) Teacher A: Pero por lo menos todos nuestros niños están de vuelta
'But at least all of our kids are back'

(34) is a felicitous continuation for (33a), but (35) is not. (33a) can be followed by (34) because it ends up being false that some of the children from their group had gotten lost and this is still compatible with some other children getting lost, such as those from the neighboring village; it cannot be followed by (35) because (35) contradicts it: if some of their children have gotten lost, it cannot be that all of them are back. However, matters are different when we consider the BPortuguese version of (33a), in (36a). The sentences with *uns* and the bare plural are also provided:

- (36) {Teachers A and B are on an excursion with a group of children, of whom they are in charge. Teacher A comes to teacher B running:}
- a. Teacher A: Você ouviu? *Algumas crianças* se perderam na floresta
 - b. Teacher A: Você ouviu? *Umas crianças* se perderam na floresta
'Have you heard? *Algumas/umas* children got lost in the forest'
- (37) {Teachers A and B are on a week-long excursion with a group of children, of whom they are in charge. Yesterday they sent their children on a two-day mini-excursion with one of the local guides. Teacher A comes to teacher B running:}
- Teacher A: Você ouviu? Durante todo o dia de ontem *crianças* se perderam na floresta
'Have you heard? All of yesterday children got lost in the forest'

(36a) cannot be followed by (the BPortuguese equivalent of) (34): the new developments in (34) do not make the statement in (36a) false: that statement says that some children (contextually salient or not) got lost in the forest and some other children didn't. On the other hand, (36a) can be followed by (The BPortuguese equivalent of) (35): the statement that all of

the teachers' children are back is compatible with some other group of children having gotten lost in the forest.¹⁴

Consider what happens if *uns* and *unos* or bare plurals are used instead. The equivalents of (33b), (33c), (36b) and (37) cannot be followed by (the BPortuguese equivalent of) (34): it is not false that there is a group of lost children. They can be followed by (the BPortuguese equivalent of) (35), because (35) simply adds information to the more general previous sentence: the lost children are not (from) the teachers' group. As was the case with partitivity, *unos/uns* and bare plurals in both languages just don't seem to care whether the Ns mentioned are contextually salient or not.

Gutiérrez-Rexach (2001) and Martí (2006) point out that *algunos* NPs can also give rise to meanings that don't look context dependent. Consider the following example, from Martí (2006):

- (38) {A conversation between two pirates. They have just now been talking about a treasure they have found with lots of coins in it. They are trying to buy a drink at a tavern. Pirate A is rummaging in his pockets for money to pay for the drink:}
- a. Pirate B: Tengo *algunas* monedas en el bolsillo. Déjame pagar
 - b. Pirate B: Tengo *unas* monedas en el bolsillo. Déjame pagar
 - c. Pirate B: Tengo *monedas* en el bolsillo. Déjame pagar
- 'I have (*unas/algunas*) coins in my pocket. Let me pay'

(38b) and (38c) behave as expected, and the coins that Pirate B offers are not coins from the treasure they have just found. In (38a), surprisingly, the coins offered by Pirate B may or may not come from the treasure that the two pirates have just discovered. That *algunos* has these interpretation possibilities in this example can be confirmed as follows. First, it is possible to follow (38a) with (39) (this is not possible, expectedly, for (38b) or for (38c)): Pirate A, upon hearing (38a), can legitimately raise the suspicion that the coins offered by Pirate B belong to the treasure:

- (39) {The pirates had struck a deal that they would leave the treasure untouched until they had come up with a good way of investing the money and they hadn't come up with that way yet}
- Pirate A: Are you telling me that you took coins with you when we discovered the treasure, despite our agreement?

But it is also possible to follow (38a) (and (38b) and (38c)) with (40):

- (40) Pirate B: I got this money from my brother the other day

Martí (2006) points out that it would not be correct to conclude that in this use of *algunos*, *algunos* behaves in the same way as *unos* or bare plurals, i.e., that *algunos* has a context

¹⁴ Some speakers might need stress on *nossas* 'our' in the BPortuguese version of (35):

- (i) Mas pelo menos todas as NOSSAS crianças estão de volta
'But at least all of our children are back'

Stress doesn't improve things for (35) when used as a continuation for (33).

insensitive use. The reason is that sentences with *algunos* NPs are not appropriate in contexts, such as those in (41) and (42), which lack a salient entity available for future reference; *unos* NPs are, as expected, felicitous in such contexts:¹⁵

- (41) {A and B are mathematicians at the university in Saarbrücken. A comes to B running. Children are something that hasn't been on their minds or conversations for a long time:}
- a. A: ¿Sabes qué? #*Algunos* niños han conseguido resolver la conjetura de Poincaré!
b. A: ¿Sabes qué? ✓*Unos* niños han conseguido resolver la conjetura de Poincaré!
'You know what? Some children have managed to solve Poincaré's conjecture!'
- (42) {A and B work at an agency for the prevention of car accidents. A is already at work, and B is just now arriving, and he is quite agitated. Children are something that hasn't been on their minds or conversations for a long time:}
- a. B: ¡Dios mío! #*Algunos* niños están jugando demasiado cerca de la carretera!
b. B: ¡Dios mío! ✓*Unos* niños están jugando demasiado cerca de la carretera!
'Oh my God! Some children are playing too close to the road!'

I conclude that the right empirical generalization about *algunos* is that it is context sensitive, even in cases such as (38a). We do not yet understand the differences between such cases and examples such as (36) that are responsible for the differing behavior, but in view of examples such as (41) and (42), I propose that *algunos* is always interpreted in connection with a contextually salient entity, sometimes directly, as in (33a), and sometimes only "indirectly", as in (41) and (42). See section 3.1 for more details.

Notice that BPortuguese behaves differently in these contexts, since *alguns* is possible (and induces a partitive effect that is lacking with *uns*, of course):

- (43) {A and B are mathematicians at the university in Saarbrücken. A comes to B running. Children are something that hasn't been on their minds or conversations for a long time:}
- a. A: ✓Você sabia que *alguns* meninos conseguiram resolver o desafio de Poincaré?
b. A: ✓Você sabia que *uns* meninos conseguiram resolver o desafio de Poincaré?
'Did you know that some children have managed to solve Poincaré's conjecture!'
- (44) {A and B work at an agency for the prevention of car accidents. A is already at work, and B is just now arriving, and he is quite agitated. Children are something that hasn't been on their minds or conversations for a long time:}
- a. B: Santo Deus! ✓*Alguns* meninos estão brincando perto demais da estrada!
b. B: Santo Deus! ✓*Uns* meninos estão brincando perto demais da estrada!
'Oh my God! Some children are playing too close to the road!'

The summary of the facts in this subsection is in Table 7:

¹⁵ With bare plurals the sentences in (41) and (42) are ungrammatical (not merely inappropriate). See Laca (1996), among others.

| | BARE PLURALS | UNOS/UNS | ALGUNOS/ALGUNS |
|--------------------|--------------|----------|----------------|
| <i>ESpanish</i> | ✗ | ✗ | ✓ |
| <i>BPortuguese</i> | ✗ | ✗ | ✗ |

Table 7 Context sensitivity

3 A decompositional analysis for plural indefinites

In this section I present a decompositional analysis of the six indefinites described in section 2.

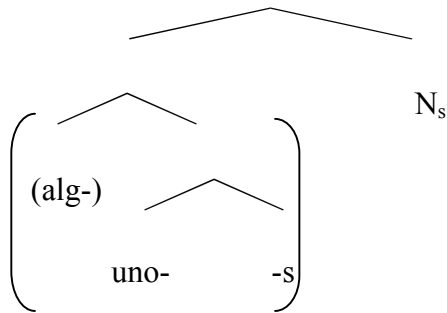
There is good reason to suppose that indefinites should be analyzed in a compositional fashion: in language after language, it is possible to see, more or less transparently, that indefinites are internally built up of pieces, sometimes of other, simpler indefinites, sometimes of interrogative words. The data in (45), from Haspelmath (1997), is a representative sample:

- (45) a. German:
- | | |
|--|--------------|
| <i>ein</i> ‘some’, <i>irgend-ein</i> , <i>kein</i> ‘no’ | (determiner) |
| <i>jemand</i> ‘somebody’, <i>irgend-jemand</i> , <i>niemand</i> ‘nobody’ | (person) |
| <i>etwas</i> ‘something’, <i>irgend-etwas</i> | (thing) |
- b. Hindi/Urdu:
- | | |
|---|----------|
| <i>koi</i> ‘somebody’, <i>koi bhii</i> | (person) |
| <i>kuch</i> ‘something’, <i>kuch bhii</i> | (thing) |
| <i>kabhii</i> ‘some time’, <i>kabhii bhii</i> | (time) |
- c. Turkish:
- | | |
|--|--------------|
| <i>bir</i> ‘some’, <i>hiçbir</i> ‘no’ | (determiner) |
| <i>biri</i> ‘somebody’, <i>hiçbiri</i> ‘nobody’ | (person) |
| <i>bir sey</i> ‘something’, <i>hiç bir sey</i> ‘nothing’ | (thing) |

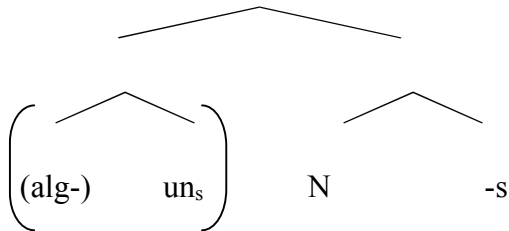
For example, in German ((45a)), there is an indefinite, *ein* (loosely translated as ‘some’) that is used as a building block for other indefinites, such as *irgend-ein* and *kein*. This pattern is similar for *jemand* ‘somebody’ and *etwas* ‘something’. In Hindi/Urdu ((45b)), *bhii* is added to simpler indefinites to form more complex indefinites. And in Turkish ((45c)), *hiç* can be added to simpler indefinites to add a negative meaning. I do not discuss here the other pervasive pattern, which builds indefinites with the help of interrogative building blocks, but the fact that it exists is further support for a decompositional analysis of indefinites. In other words, the argument is that a non-decompositional theory of indefinites would have it that the pervasive patterns we observe cross-linguistically, exemplified in (45), are merely accidental.

I assume the decompositions in (46), for ESpanish (and EPortuguese), and in (47), for BPortuguese:

(46) *ESpanish*



(47) *BPortuguese*



I use the subscript ‘S’ to indicate a plural morpheme that is just a plural agreement marker, without any semantic content.

To treat the plural marker on nouns differently in the two languages is motivated primarily by the fact that *ESpanish* bare nouns are semantically singular, whereas their *BPortuguese* counterparts are semantically plural, as we saw in section 2.1. (48) is the denotation I assume for plural nouns in *ESpanish* (and *EPortuguese*):

(48) $[[ni\tilde{n}o_s]] = [[ni\tilde{n}o]] = \lambda x. x \text{ is an atomic child individual}$

I assume the classification of individuals in Link (1983), where individuals can be atomic/singular or molecular/plural. The distinction between these two kinds of individuals is illustrated in (49):

- (49) a. atomic/singular individuals: John, Peter, Sue, Steven...
 b. molecular/plural individuals: John+Peter, Sue+John, Steven+Sue+John...

In other words, the individual John is an atomic or singular individual, and is not molecular or plural. On the other hand, the individual John+Peter is a molecular or plural individual, not an atomic or singular one. Molecular/plural individuals have atomic/singular subparts.

The denotation of *niños* is the same as the denotation of *niño* and is a set of atomic child individuals. The plural marker –s on the plural noun is a marker of plural agreement; it cannot add semantic plurality in this language because *ESpanish* bare nouns are semantically singular.

BPortuguese bare nouns, on the other hand, are semantically plural. Here I follow Müller (2002) in her treatment of bare singular and plural nouns in this language:

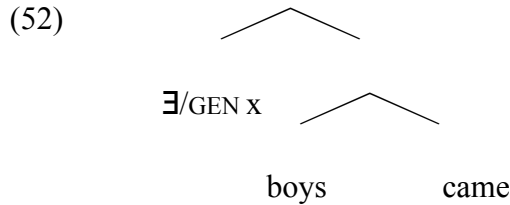
(50) $[[[\text{menino}]\text{-s}]] = \lambda x.x$ is a molecular child individual

The plural marker on BPortuguese nouns is meaningful and has the denotation in (51b). It takes as its argument a noun like *menino* in (51a), which simply denotes a set of child individuals, atomic or molecular. The plural morpheme returns a set of molecular child individuals as the denotation of *meninos*:

- (51) a. $[[\text{menino}]] = \lambda x.x$ is a child individual
 b. $[[\text{-s}]] = \lambda P_{\langle \text{et} \rangle}.\lambda x.[P(x) \ \& \ \text{Mol}(x)]$

This treatment builds semantic plurality and singularity into the lexical semantics of nouns. Because nothing is else is built into their lexical semantics, ESpanish and BPortuguese bare plurals do not induce a partitive effect, are not context sensitive and are not positive polarity items. The fact that the former, but not the latter, give rise to event distribution readings is dealt with in section 3.2, but it is important to say now that this difference will be ultimately linked to their different lexical semantics.

I assume, like many others, that there is a default process of existential binding that takes care of the unsaturated variable provided by bare plurals. In generic sentences, we get binding by a generic operator instead of existential binding.¹⁶ Additionally, I assume that there is a rule of semantic composition that allows verbal predicates to combine with bare plurals in argument position:



I follow Chung and Ladusaw (2004) in that that operation is a generalized version of Predicate Modification, Restriction.

For more on the advantages of treating these nouns as I do here, see Müller (2002) for BPortuguese and McNally (2004) for ESpanish.

Bare nouns are the first and most basic building block for our indefinites. We can now add *unos* and *uns* to obtain a new indefinite. Here the underlying logic of the analysis tells us that *uns* and *unos* should be very similar semantically, because they are very similar in form. The denotation of *unos* is built up of the denotation of *uno* and the denotation of the plural marker, which is meaningful on determiners in ESpanish:

(53) $[[[\text{uno}]\text{-s}]] = \lambda P_{\langle \text{et} \rangle}.\lambda Q_{\langle \text{et} \rangle}.\exists x[\text{Mol}(x) \ \& \ \forall z[z < x \rightarrow P(z)] \ \& \ Q(x)]$

- (54) a. $[[\text{uno}]] = [[\text{uns}]] = \lambda P_{\langle \text{et} \rangle}.\lambda Q_{\langle \text{et} \rangle}.\exists x[P(x) \ \& \ Q(x)]$
 b. $[[\text{-s}]] = \lambda R_{\langle \text{et}, \langle \text{et}, \text{t} \rangle \rangle}.\lambda P_{\langle \text{et} \rangle}.\lambda Q_{\langle \text{et} \rangle}.R(\lambda y.\text{Mol}(y) \ \& \ \forall z[z < y \rightarrow P(z)])(Q)$

The plural morpheme in (54b) takes *uno* in (54a) as its argument. *Uno* is an existential generalized quantifier and the result of combining with the plural marker, in (53), is also an

¹⁶ See section 3.2 for a slight addition to this picture.

existential generalized quantifier, but one that quantifies over molecules instead of atoms. This is achieved via the plural marker, because it provides a set of molecular individuals as the first argument of *R*, i.e., *uno*. When *unos* combines with the noun in (48), the plural marker on *unos* allows *unos* to take atomic individuals and put them together to form molecular individuals and existentially quantify over them. Thus, *unos* phrases in ESpanish are semantically plural. *Uns* in BPortuguese has the same denotation as *uno*, in (54a), thus capturing the fact that they look alike morphologically. The plural marker on *uns* is just an agreement marker and has no semantic content. *Uns* does not need the help of its *-s* to give rise to plural noun phrases, because BPortuguese bare nouns ((50)) already provide the molecules.

Thus, both *unos* phrases and *uns* phrases are semantically plural, have existential import, are not generic (because the variable provided by the noun already gets bound existentially by *unos/uns*), lack a partitive effect (because no partitive effect is built in) and are not context sensitive (nothing that is context sensitive has been built into their semantics). As for event distributivity and polarity sensitivity, I provide an analysis of these effects in section 3.2.

Notice how the lack of a partitive effect and the lack of contextual sensitivity with bare plurals, *unos* and *uns* is achieved in this analysis. I exemplify with *unos/uns*. The (simplified) truth-conditions that this analysis gives rise to for the (ESpanish and BPortuguese versions of the) sentence in (55) are as in (56):

(55) There arrived *unos/uns* children to the party

(56) $[[(55)]]$ = 1 iff there is a molecular child individual *x* and *x* arrived to the party

All that (56) requires is that there exist a molecular/plural individual who come to the party. It is left completely open whether there are other individuals who came to the party; (56) is true independently of whether that is the case. Hence, there is no partitive effect. There is also no reference to anything contextually salient in (56): the sentence is true in scenarios in which a contextually salient plural child individual came to the party and in scenarios in which the child individual is not contextually salient.

We have the option in both languages to continue building indefinites with the help of *alg-*, which I propose has the denotation in (57):

(57) $[[alg-]] = \lambda R_{\langle et, \langle et, t \rangle \rangle} . \lambda P_{\langle et \rangle} . \lambda Q_{\langle et \rangle} . R(P)(Q)$
 Implicature: $R(P)(\{x: Q(x)=0\})$

That is, *alg-* has, in fact, no truth-conditional content. It simply provides two arguments to *R*, i.e., to *unos/uns*, which it takes as its argument. However, *alg-* induces the implicature that $R(P)(\{x: Q(x)=0\})$. This is how we build in the partitive effect: there is an implicature that there are *P* individuals who are not in *Q*. In the case of a BPortuguese sentence like (58) (= (29a)), we obtain the (simplified) (59):

(58) *Alguns* alunos meus de História vieram me ver ontem no meu gabinete.
 ‘*Alguns* history students of mine came to see me yesterday to the office’

- (59) $[[(58)]]$ = 1 iff there is a molecular individual x such that x is a history student of mine and x came to see me yesterday to the office
 Implicature: there is a molecular individual x such that x is a history student of mine and x didn't come to see me yesterday to the office

The truth-conditions we obtain are like those we obtain for *uns*, but there is the added partitive implicature.

Recall that an additional property of ESpanish *algunos* that differentiates it from BPortuguese *alguns* is that *algunos* is context sensitive, but *alguns* is not. I assume that (57) is actually the denotation of BPortuguese *alg-*, and that the denotation of ESpanish *alg-* is slightly different: it incorporates a contextual, free variable C (see von Stechow 1994, Martí 2003, 2006, among many others), as in (60):

- (60) $[[alg-]] = \lambda R_{\langle et, \langle et, t \rangle \rangle} . \lambda P_{\langle et \rangle} . \lambda Q_{\langle et \rangle} . R(P \cap C)(Q)$
 Implicature: $R(P \cap C)(\{x: Q(x)=0\})$

We make sense of the fact that *algunos* and *alguns* look alike morphologically by giving them a very similar semantics. It is, nevertheless, different in that the first argument of the R relation is more restricted in ESpanish than in BPortuguese: in ESpanish, the first argument of the quantifier (P) is intersected with the free variable C , which gets a value from the context. This is a slight departure from the transparent form-meaning hypothesis, because *alg-* is *alg-* in both languages. At the moment, however, I know of no better way of accounting for context sensitivity. In any case, I am reasonably satisfied that (57) and (60) are very similar.

Thus, both *algunos* and *alguns* have existential import, they are both semantically plural (*alguns* because of N ; *algunos* because of *-unos*) and are positive polarity items (because *unos* and *uns* are; see section 3.2). They both induce a partitive effect, though only *algunos* is context sensitive. See section 3.2 for an analysis of the event distribution effect.

3.2 Positive polarity and event distribution

3.2.1 Positive polarity as presupposition failure

Recent treatments of polarity sensitivity have analyzed the phenomenon as presupposition failure (see Nilsen's (2004) analysis of positive polarity items like *possibly* and Chierchia's (2004) and Kadmon and Landman's (1993) analysis of negative polarity items like *any*). I exemplify here how the account works with *uns*. To the entry we had in (54a), we add the following presupposition:

- (61) $[[uns]] = \lambda P_{\langle et \rangle} . \lambda Q_{\langle et \rangle} . \exists x [P(x) \ \& \ Q(x)]$
 presupposition: $\forall G [G \subseteq P \rightarrow \exists x [G(x) \ \& \ Q(x)]] \rightarrow_{\text{asymm}} \exists x [P(x) \ \& \ Q(x)]$

What that presupposition tells us to do is to check certain entailments of the sentence. Suppose we had the (BPortuguese version of the) sentence in (62), which, notice, does not contain negation.

- (62) there came *uns* teachers to the meeting (recall (5), (12))
- a. all subsets of [[teachers]] contain individuals that came to the meeting
 → [[teachers]] contains individuals that came to the meeting
 - and
 - b. all subsets of [[teachers]] contain individuals that came to the meeting
 ↯ [[teachers]] contains individuals that came to the meeting

(61) says that we have to look at all subsets of teachers. In (62a) we check the entailment in one direction: if all subsets of teachers contain individuals that came to the meeting, then it should follow that the big set of teachers also contain individuals that came to the meeting. This entailment indeed follows. (61) says more: in order to fully comply with the presupposition, it must be the case that the reverse entailment does NOT hold. We check the reverse entailment in (62b). If the big set of teachers contains individuals that came to the meeting, it does NOT follow that all subsets of teachers also contain such individuals. You could choose a subset in which all of the members are non-comers. So the presuppositions of a sentence with *uns* and without negation are met.

If we put in negation, the presupposition that the entailment be asymmetric is no longer met. (63) contains *uns* and negation and is ungrammatical:

- (63) *there didn't come *uns* teachers to the meeting (recall (5), (12))
- a. all subsets of [[teachers]] lack individuals that came to the meeting
 → [[teachers]] lacks individuals that came to the meeting
 - b. all subsets of [[teachers]] lack individuals that came to the meeting
 ← [[teachers]] lacks individuals that came to the meeting

(63a) checks the entailment in one direction: if all the subsets of teachers lack individuals that came to the meeting, it follows that the big set of teachers lacks individuals that came to the meeting ("lack" being the negation of "contain"). (63b) checks the reverse entailment, which also holds in this case but shouldn't: if the big set of teachers lacks individuals who came to the meeting, all subsets of teachers will also lack such individuals. The presuppositions of *uns* are not met under negation, and this is how we derive the polarity effect. Similar remarks will hold for *unos*, and because *algunos* and *alguns* contain a positive polarity inside of them, they will also be positive polarity items.

This predicts that *algunos* and *alguns* should be ungrammatical when under the scope of negation. Recall, however, that, even though this was true, it was also true that sentences with negation and *algunos/alguns* were not ungrammatical, they merely forced the wide scope reading of the indefinites. We can make sense of this, and of the difference with *unos* and *uns*, by assuming that *algunos/alguns* can move above negation but *unos/uns* cannot. Since in the negation >> *algunos/alguns* option the presuppositions of the indefinites are not met, we don't obtain the narrow scope reading in (64b)¹⁷. Because *algunos* and *alguns* can move, (64a) is the only reading of the sentence:

¹⁷ This would be indeed the narrow scope reading of *algunos/alguns*; that is, the partitive implicature triggered by *algunos/alguns* (see (57), (60)) is not relevant here. See Chierchia (2004), Gazdar (1979) and Horn (1989) for discussion of implicature suspension under negation and other downward-entailing contexts.

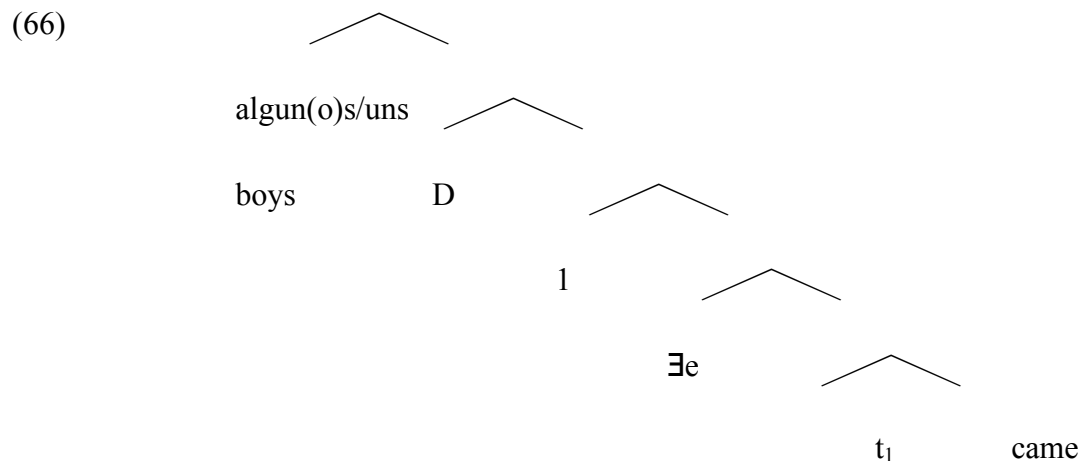
- (64) there didn't come *algunos/alguns* teachers to the meeting (recall (5), (12))
 a. *algunos/alguns* >> negation: "there are some teachers who didn't come to the meeting (and some who did)"
 b. *negation >> *algunos/alguns*: "it is not the case that there are teachers who came to the meeting" (i.e., no teachers came to the meeting)

3.2.2 Event distribution as scope above a D-operator

I suggest to treat event distribution as scope above a distributivity operator combined with the idea that verbal predicates such as *come* come with an event argument (cf. Landman 2000, Link 1983, Schwarzschild 1996, among others). A verb like *came* is not merely a set of individuals, because it also contains an event variable; its denotation is in (65a):

- (65) a. $[[\text{came}]] = \lambda x. \lambda e. \text{came}(x)(e)$
 b. $[[D]] = \lambda f_{\langle e, t \rangle}. \lambda x. \forall y [y \text{ is atomic} \ \& \ y < x \rightarrow f(y)]$

I assume that there is a default mechanism of existential binding, similar to the one I assumed above for bare plurals, that later on takes care of such variables. (65b) has the denotation of the D-operator that is assumed in much work on distributivity. It is an operator that attaches to a syntactic tree wherever it is compatible type-wise. What it does is collect into a set all of those individuals whose atomic parts are such that they apply to a predicate like *came*. Since *came* comes with an event variable, what it will do is collect into a set molecular individuals, and it will express that for each of their atomic parts, there is an event in which each atomic part came. This will give us event distribution. In the case of *algunos*, *alguns* and *uns*, which, remember, did event distribute, we need an LF like that in (66), where the indefinite phrases have moved above D:

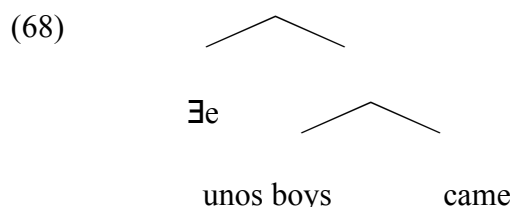


- (67) $[[\text{uns/algun(o)s boys came}]] = 1$ iff there is a molecular boy individual x and for all of its atomic subparts y , there is an event e such that y came in e

We get the (simplified) truth-conditions in (67). (67) says that the sentence is true iff there is a molecular boy individual x and for all of its atomic subparts there is an event e such that each of the atomic subparts came in e . Suppose we choose different events for each atomic subpart. We then get event distribution. Suppose we choose the same event: then we get non-event-

distribution. This is as it should be, since these three indefinites allowed also non-event-distribution readings.

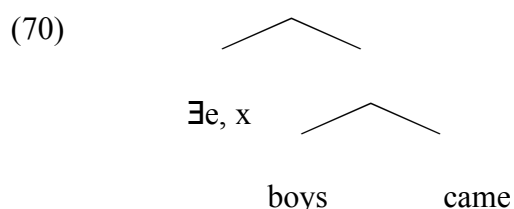
Why doesn't *unos* event distribute? I assume that *unos* cannot move. Before, it couldn't move above negation, now it can't move above D. It just can't move at all. Hence, the only possible LF for a *unos* sentence is (68), where *unos* hasn't moved. This LF results in the denotation in (69): the requirement is that there be one single event for a whole collection of boy individuals:¹⁸



- (69) $[[\text{unos boys came}]] = 1$ iff there is a molecular boy individual x and an event e and all atomic subparts of x came in e

We are now ready to come back to another one of the problems for the transparent form-meaning hypothesis: the behavior of bare plurals. Recall that ESpanish bare plurals event distributed, but BPortuguese bare plurals did not. Why do they differ in this respect? I propose to derive the behavior of bare plurals with respect to event distribution from their independently justified lexical semantics plus the assumption that they, like *unos*, take narrow scope obligatorily. That is, that bare plurals in ESpanish event distribute and bare plurals in BPortuguese do not is a by-product of their lexical semantics, it doesn't have to be stipulated separately.

Combining the denotation of bare plurals in ESpanish ((48)) with the LF in (70) (cf. (52)), we get the truth-conditions in (71a):



- (71) a. *ESpanish*
 $[[\text{boys came}]] = 1$ iff there is an event e and an atomic boy individual x and x came in e
 b. *BPortuguese*
 $[[\text{boys came}]] = 1$ iff there is an event e and a molecular boy individual x and x came in e

¹⁸ I suspect that this property of *unos* correlates with its general scope properties: *unos* usually takes obligatory narrow scope with respect to other operators. This is a (controversial) claim that I think deserves more work, though I do not undertake that work here. Notice that for a principled account of the difference between *unos* and *uns* it would have to be the case that *uns* can scope certain operators.

The ESpanish sentence is true iff there is an event *e* and an atomic boy individual *x* and *x* came in *e*. This is so weak that it happens to be true in the two kinds of scenarios, the event distribution scenario and the non-event-distribution scenario. The truth-conditions we obtain for BPortuguese, in (71b), are slightly stronger, because bare plurals in this language denote sets of molecular, not atomic individuals. The BPortuguese sentence is true iff there is an event *e* and a molecular boy individual *x* and *x* came in *e*. This is false in the event distribution scenario, as desired.

So, to derive the behavior of bare plurals with respect to event distribution, we don't make use of the D-operator. We get event distribution for free in the case of ESpanish bare plurals because of their very weak lexical semantics. And we get that BPortuguese bare plurals don't event distribute because of their slightly stronger lexical semantics.

Notice that it is necessary to assume that bare plurals in either language cannot move. In particular, if bare plurals in BPortuguese could move above the D-operator, they would be predicted to event distribute. This assumption, both for ESpanish and for BPortuguese, can probably be correlated with the general scope (im)possibilities of bare plurals.

One welcome consequence of deriving the behavior of bare plurals with respect to event distribution in this fashion is that we predict very easily that sentences with any of the indefinites we have studied here can be true in what I call the group event distribution scenario. The sentence in (72) (recall (23)) is true in the non-event-distribution scenario but it is also true in a group event distribution scenario in which several groups of history students of mine came to see me to the office; each group did so at a separate time. Hence, there is distribution over events, but it is not that there is an event per atomic individual (as in the regular event distribution reading), there is an event per molecular individual:

- (72) Durante todo o dia de ontem *alunos meus de História* vieram me ver no meu gabinete
 'All of yesterday history students of mine came to see me to the office'

This we easily get from (71b), since the truth-conditions there require there to be *at least* a molecular boy individual that came. This is compatible with more molecular boy individuals coming each at their own time. (71a) makes the ESpanish sentence true in the group event distribution scenario as well: if there are groups of students who, each at their own time, came to see me, then there is an atomic student who came to see me at a particular time. We obtain the same result with *unos/uns* and *algunos/alguns*, for the same reason BPortuguese bare plurals do so. The situation is most dramatic with BPortuguese bare plurals and with ESpanish *unos* because they allow less readings (i.e., the plain event distribution reading) than *uns*, *algunos* and *alguns*.¹⁹

¹⁹ In Martí (2006), a different analysis than the one proposed here is entertained for *algunos* and *unos*. The present paper should be considered an improvement on the analysis presented there, since more properties, more indefinites and more languages are taken into account here.

4 Conclusion

In this paper I have pursued the hypothesis that there is a transparent match between form and meaning in the realm of BPortuguese and ESpanish plural indefinites. I have provided a description of some of their crucial properties and have then proposed an analysis in which these properties are accounted for on the basis of their morphological composition. The transparent form-meaning match that I propose to follow here is, I think, the null hypothesis, so the paper can be considered a study on the advantages (and perhaps disadvantages) of pursuing the null hypothesis. The hypothesis is interesting because it constrains the explanation space and forces us to look for alternative and, in the best possible world, independently justified analyses of those properties that cannot have come from the building blocks of the indefinites. It also tells us what sort of explanation (semantic –e.g., having to do with the lexical semantics of the building blocks—or syntactic –e.g., having to do with movement possibilities) certain properties must have.

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