

CONTEXTUAL RESTRICTIONS ON INDEFINITES: SPANISH *ALGUNOS* VS. *UNOS*¹

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1 Introduction

In this paper I argue that the Spanish plural indefinite *algunos*, an existential quantifier (see Martí to appear and cf. Gutiérrez-Rexach 1999a, b, 2001 and others), introduces a contextual variable, the way quantifiers like English *every* do (von Stechow 1994, Martí 2003, among others). I blame *alg-* for the context dependence of *algunos*, absent with *unos*. The paper builds on the analysis of *unos* and *algunos* that I propose in Martí (to appear) and adds an additional layer to the “indefinite hierarchy” defended there. In order to determine exactly where in the indefinite hierarchy context dependence should be located, I use data from Brazilian Portuguese that contrasts in certain crucial respects with the Spanish data.²

The proposal made in this paper has consequences for our (cross-linguistic) views on quantification and domain restriction. It interacts in interesting ways with the proposal in Etxeberria (2005, this volume), Giannakidou (2004) and Matthewson (2001) that the definite article is what introduces contextual domain restriction. Also, there is a debate in the current literature (in addition to the references above, see Stanley 2002) about where in the quantificational phrase context dependence is located: with the quantifier itself, or with the noun that accompanies the quantifier. The results of this study have two major consequences for this debate: first, if *alg-* is responsible for context dependence, then the option of locating context dependence on the quantifier must be allowed; second, if we are to properly draw the distinction between *unos* and *algunos*, context dependence cannot ever come from the noun in Spanish.

The organization of the paper is as follows. In section 2, I introduce the basic context dependence facts. This section also contains an argument that the difference between *algunos* and *unos* is not presuppositional. In section 3, I introduce the basics of the decompositional

¹ Thanks to Klaus Abels, Ana Paula Quadros, Isabel Pérez Jiménez, two anonymous reviewers and the organizers and participants of the workshop “QP structure, nominalizations and the role of DP” (Universität des Saarlandes in Saarbrücken, Germany, in December 2005), most of all Urtzi Etxeberria, Anastasia Giannakidou (who gave very detailed written comments on this material), Monika Rathert and Arnim von Stechow. All errors are of course my own.

² The variety of Spanish represented here is the one spoken in Madrid, Spain and its surroundings. For speakers of other varieties, as pointed out in Martí (to appear), there might be fewer differences between *unos* and *algunos*.

analysis in Martí (to appear) and show that a simple extension of that analysis allows us to capture the facts from section 2. I also discuss Brazilian Portuguese in this section. In section 4, I discuss consequences of this proposal for our views on domain restriction and quantification and for the proposal made in Giannakidou (2004) and Etxeberria (2005, this volume). This section also contains a brief discussion on *algunos de los* ('some of the'). Given the well-known subtlety of the judgements involved here, special care has been put in the collection of the data; section 5 discusses the procedure that was followed. Section 6 is the conclusion.

2 The context dependence of *algunos* and the context independence of *unos*

The semantics of the Spanish plural indefinites *algunos* and *unos* has received some attention in the recent literature (see Alonso-Ovalle and Menéndez-Benito 2002, Gutiérrez-Rexach 1999a, b, 2001, Laca and Tasmowski 1996, Martí to appear and Villalta 1994).³ Consider (1):

- (1) a. Llegaron *algunos/unos* chicos a la oficina
 arrived boys to the office
 'Some boys arrived to the office'
 b. Hay *algunos/unos* libros sobre la mesa
 are books on the table
 'There are some books on the table'

As the translations in these examples show, it is often difficult to tease apart the semantic contribution of *unos* from that of *algunos*. As we will see in this paper, however, and as has been shown before, there are a number of interesting differences between the two. This section of the paper concentrates on context dependence: the absence of it in the case of *unos*, and its presence with *algunos*. Section 2.1 presents the crucial facts. Section 2.2 argues that presuppositionality is not what differentiates *unos* from *algunos*.

2.1 The data

Let us start by considering the examples in (2) (cf. (1a)):^{4, 5}

³ Alonso-Ovalle and Menéndez-Benito (2003) study the properties of the singular version of *algunos*, *algún*. The analysis below makes certain predictions about *algún* (and *un*, the singular version of *unos*) which I don't investigate here.

⁴ Thanks to Michal Starke for discussion of a similar example.

⁵ 'Cl' stands for 'clitic'. *Me* is the 1st person singular clitic; *te* is the 2nd person singular clitic, and *le*, the 3rd person singular one. *Les* is the plural version of *le*, and *se* is another clitic that has several functions in the language.

- (2) {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
 cl have found.out children cl have
 perdido en el bosque
 gotten.lost in the forest
- b. Teacher A: ¿Te has enterado? *Unos* niños se han perdido en el bosque
 ‘Have you heard? Some children got lost in the forest’

In (2a), teacher A says that some of the children him and teacher B are in charge of have gotten lost in the forest. (2b) says something different: teacher A says that some children have gotten lost in the forest, but he doesn’t mean the children him and teacher B are in charge of. This is a subtle difference between (2a) and (2b) that can be sharpened by considering the continuations in (3) and (4):

- (3) {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: We are so fortunate that what I said turned out to be false – we don’t have to give bad news to any parent!
- (4) Teacher A: But at least all of our kids are back

(The Spanish version of) (3) is a felicitous continuation for (2a), though not for (2b). (The Spanish version of) (4) is a felicitous continuation for (2b), though not for (2a). This confirms our initial intuitions about (2). (2a) can be followed by (3) because it ends up being false that some of the children from their group had gotten lost and this is compatible with some other children getting lost, such as those from the neighboring village; it cannot be followed by (4) because (4) contradicts it: if some of their children have gotten lost, it cannot be that all of them are back. The behavior displayed by *algunos* here is context-sensitive behavior: the group of children that the teachers are in charge of is salient in the context of (2a)⁶ and *algunos* is sensitive to that. *Unos*, on the other hand, seems to be context-insensitive. Even though the same group of children is salient in the context of (2b), it is not possible to follow (2b) with (3) but it is possible to follow it with (4) – suggesting that in (2b) *unos niños* does not establish a relationship with a previously established discourse entity.

The examples in (5) and (6) make the same point; (5) is constructed on the basis of an attested example:

⁶ By, for example, being explicitly mentioned, or by being inferred.

- (5) Question asked by reader in on-line interview:
In which areas of the world is the AIDS problem the worst?
- a. Answer by doctor: In Subsaharan Africa, undoubtedly...
Hay *algunos* países que podrían desaparecer si no
there are countries that could disappear if not
se les presta ayuda para combatir la enfermedad.
cl cl offer help for fight the disease
- b. Answer by doctor: In Subsaharan Africa, undoubtedly...
#Hay *unos* países que podrían desaparecer si no se les presta
ayuda para combatir la enfermedad.
'There are some countries that could disappear if they don't receive help to fight the
disease'

(5) is based on an on-line interview in *El País*. In this interview, a doctor who specializes on AIDS is asked questions by readers. (5a) is adapted from an answer provided by this doctor; by *algunos países*, the doctor means 'some countries in Subsaharan Africa'. In (5b), we try to replace *algunos* with *unos*, but that produces infelicity. The doctor seems to be talking about countries other than Subsaharan African countries. But that doesn't address the question asked by the reader: where are these countries? Again, whereas *algunos* seems to have no problem establishing a relationship with a previously introduced entity, such as Subsaharan African countries, *unos* seems incapable of doing so and, when doing so would be relevant and called for, *unos* gives rise to infelicity.

- (6) Upon arriving at the school and seeing several groups of boys fighting, the principal, sick and tired of seeing the same scene every day, mumbled to himself: "What a way to begin the day!". In a panic, he realized that...
- a. ... *algunos* chavales estaban demasiado cerca de la carretera
boys were too close of the road
- b. ... *unos* chavales estaban demasiado cerca de la carretera
'...some boys were too close to the road'

We observe in (6a) that the boys who are too close to the road are some of those who are fighting, which constitute an entity previously introduced in the discourse. In (6b), the boys who are too close to the road are not some of those who are fighting.

We can further appreciate the difference between *unos* and *algunos* by considering contexts which make no entity available for future reference. In such contexts, it is impossible to use *algunos*, though sentences with *unos* are felicitous:⁷

⁷ A modification of (6) changes things for *algunos*; using the existential construction allows *algunos* not to establish a link with a previously introduced entity (see Gutiérrez-Rexach's (2001: 140) example (58) for more examples of this kind):

- (ii) {same as in (6)}
- a. ...había *algunos* chavales demasiado cerca de la carretera
there were boys too close of the road
- b. ...había *unos* chavales demasiado cerca de la carretera
'there were some boys too close to the road'

- (7) {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!'
- (8) {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!'

2.2 Presuppositionality

In this section I argue that presuppositionality is not a difference between *unos* and *algunos*, that is, that *alg-* is not presuppositional (in addition to being context dependent or as an alternative to context dependence). What we have seen so far is that, in an example such as (2a), *algunos niños* is interpreted as "some of the children salient in the context". I now show that the extra information not represented explicitly on the surface string does not come about via a presupposition. I also show here that another potential presupposition, that the set denoted by the head noun be non-empty (cf. Gutiérrez-Rexach 2001), is not a presupposition but an entailment, of both *unos* and *algunos*.

In order to understand the tests that I will use, consider first the behavior of the presupposition of *both*. *Both* triggers the inference that the cardinality of the set denoted by the head noun is two. For example, (9) triggers the inference that there are exactly two girls:⁸

- (9) Both girls have three A's

This inference we call a presupposition. There are at least two other inferences that can be drawn from (9): first, if Mira is one of the girls, then she has three A's; second, both girls have exactly three A's. The first of these two inferences we call an entailment, and the

In (ia), the boys who are too close to the road can be some of those who are fighting, but they don't have to be.

How can (ia) be reconciled with the generalization in the text? Notice that it will not do to say that *algunos* is sometimes context-sensitive and sometimes not, since this would predict, contrary to fact, that (4) should be a good continuation for (2a) (the context-independent version of *algunos* would make it good). Other hypotheses that are worth exploring are that domain restriction with indefinites works differently from domain restriction with strong quantifiers, or that, given the syntactic difference between (6a) and (ia), the syntactic context can affect the context dependence of indefinites (with the additional possibility that these two hypotheses are actually the same: the way that domain restriction is different with indefinites is that the syntactic context can manipulate it). Thanks to Anastasia Giannakidou for discussion of this issue.

⁸ The discussion here is based on class notes by Yael Sharvit.

second an implicature. How can we tease presuppositions apart from entailments and implicatures? Presuppositions are special in that they cannot be cancelled (implicatures can) and in that they do not pass the *wonder*-test (entailments do). (10b) shows that presuppositions cannot be cancelled:

- (10) Of course both girls have three A's!
a. #In fact, Mira has two
b. #In fact, there is only one girl
c. In fact, Mira has four

Implicatures can be cancelled ((10c)), though entailments, like presuppositions, cannot be cancelled ((10a)). To distinguish entailments from presuppositions, we can use the *wonder*-test:

- (11) Bill wonders whether both girls have three A's
a. He is not sure that Mary does
b. #He is not sure there are two girls

That is, when Bill wonders about something, he wonders about its entailments, not its presuppositions. Entailments pass this test, not presuppositions.

Let us start by testing *unos*. According to the results of the tests in (12) and (13), *unos* does not induce the presupposition that the set denoted by the head noun, *gorilas asiáticos* 'Asian gorillas' is non-empty:

- (12) Trajeron *unos* gorilas asiáticos al zoo. #De hecho, no queda ninguno
'They brought some Asian gorillas to the zoo. In fact, there are none left'
(13) Juan se pregunta si habrán traído *unos* gorilas asiáticos al zoo. No está seguro de que quede ninguno
'Juan wonders whether they brought ('futuro perfecto') some Asian gorillas to the zoo. He is not sure there are any left'

This piece of information is rather an entailment, since it behaves like one: it cannot be cancelled ((12)), but it can be wondered about ((13)). *Algunos* patterns like *unos* here:

- (14) Trajeron *algunos* gorilas asiáticos al zoo. #De hecho, no queda ninguno
'They brought some Asian gorillas to the zoo. In fact, there are none left'
(15) Juan se pregunta si habrán traído *algunos* gorilas asiáticos al zoo. No está seguro de que quede ninguno
'Juan wonders whether they brought ('futuro perfecto') some Asian gorillas to the zoo. He is not sure there are any left'

Thus, both *unos* and *algunos* induce the entailment that the set denoted by the head noun is non-empty. The inappropriateness of the continuations in (12) and (14) is likely due to the existential import of the two indefinites.

Now we test whether *algunos N* induces the presupposition that there are salient Ns in the context. That is, for a sentence like (2a), the presupposition induced by *algunos* would be that there are children in Teacher A and B's group; for (5a), that there are countries in Subsaharan Africa; for (6a) that there are boys fighting. Note that it is unclear how exactly these presuppositions would be derived without at some point assuming that there is something (e.g., a variable) that is sensitive to contextual information (because the presuppositions will change with the context). But since it is possible to show that these bits of information do not behave like presuppositions, we do not have to worry about this problem.

Consider (5a), repeated as (16), and its two modifications in (17) and (18):

- (16) Question asked by reader in on-line interview: In which areas of the world is the AIDS problem the worst?

Answer by doctor: In Subsaharan Africa, undoubtedly...

Hay *algunos* países que podrían desaparecer si no se les presta ayuda para combatir la enfermedad.

'There are some countries that could disappear if they don't receive help to fight the disease'

We test whether the following modified versions of (16) are felicitous. The modifications have to do with the fact that, given real-world knowledge, it would be rather strange to deny or wonder about the existence of certain countries, but not about the existence of governments with the necessary resources to fight AIDS:

- (17) Question asked by reader in on-line interview: In which areas of the world is the AIDS problem the worst?

Answer by doctor: In Subsaharan Africa, undoubtedly...

Hay *algunos* gobiernos con los recursos necesarios que se están preparando para prestar ayuda. #De hecho, no existen gobiernos con tales recursos en el África Subsahariana

'There are some governments with the necessary resources that are getting ready to help. In fact, there exist no governments with such resources in Subsaharan Africa'

(18) Question asked by reader in on-line interview: In which areas of the world is the AIDS problem the worst?

Answer by doctor: In Subsaharan Africa, undoubtedly. Our attempts at containment in this area have so far failed, and...
los políticos de los países ricos se están preguntando si *algunos* gobiernos con los recursos necesarios estarían preparados para prestar ayuda. No están seguros de que existan gobiernos con tales recursos en el África Subsahariana⁹

‘Politicians in rich countries are wondering whether some governments with the necessary resources would be prepared to help. They are not sure there exist governments with such resources in Subsaharan Africa’

We understand the doctor’s answer to mean that politicians wonder whether some governments with the necessary resources in African Subsaharan countries would be prepared to help, and that they are wondering about this because they are not sure whether such governments exist. Hence, it is possible to wonder about this piece of information, and this, together with (17), tells us that the information that there exist governments with the necessary resources in Subsaharan Africa is an entailment, not a presupposition, of the sentence with *algunos*.

3 Context dependence and the indefiniteness hierarchy

In this section I propose an analysis in which *alg-* is responsible for the context dependence of *algunos*. Since *unos* does not contain *alg-*, it straightforwardly follows that *unos* is not context dependent (unless context dependence came from somewhere else; see section 4 for more on this). The analysis builds on the proposal in Martí (to appear), which already captures some other differences between the two indefinites.

The data from Spanish is informative in that it tells us that context dependence must be built somewhere high in the indefinite hierarchy, but consideration of Spanish alone does not help in determining the exact location of this dependence. Data from Brazilian Portuguese will allow us to do just that.

The organization of this section is as follows. In section 3.1, I summarize the relevant aspects of the proposal in Martí (to appear). In section 3.2 I show how to extend that analysis so as to capture the context dependence facts. In section 3.3 I consider the Brazilian Portuguese data. Section 3.4 summarizes the main points of this section.

3.1 The indefiniteness hierarchy

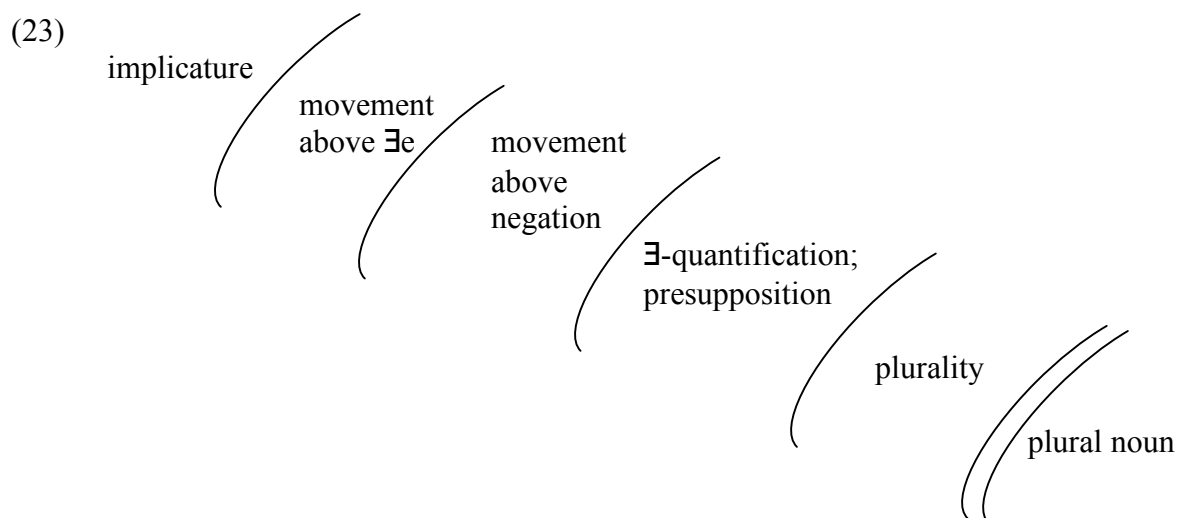
In Martí (to appear), I investigate a number of additional properties of *unos* and *algunos* and propose the indefinite hierarchy to account for them. In addition, I compare Spanish with Brazilian Portuguese *uns* and *alguns*, which differ from their Spanish

⁹ The continuation “In fact, there exist no governments with the necessary resources” is impossible in (17), and in (18) it is possible to follow up with “They are not sure there exist governments with such resources”, suggesting, again, that *algunos* does not presuppose that the set denoted by the head noun is not empty. It just entails this bit of information.

counterparts in certain interesting respects. And I also compare the behavior of *un(o)s* and *algun(o)s* with bare plurals. The empirical generalizations defended in the paper are as follows:

- (19) Spanish bare plurals are semantically singular. *Un(o)s*, *algun(o)s* and Brazilian Portuguese bare plurals are, on the other hand, semantically plural
- (20) *Un(o)s* and *algun(o)s* are positive polarity items. Bare plurals in either language are not
- (21) *Algun(o)s* induce a partitive implicature. *Un(o)s* and bare plurals in either language do not
- (22) *Algun(o)s*, *uns* and bare plurals in Spanish event distribute. *Unos* and bare plurals in Brazilian Portuguese do not¹⁰

The hierarchy in (23) is proposed in order to account for these facts. This hierarchy is a structured template that contains the basic building blocks for indefinites, and, ideally, it is cross-linguistically valid. The analysis hinges on the idea that lexical items can spell out different parts of the structure in (23):



The relevant presupposition introduced at the presupposition and existential quantification layer is a presupposition that, in the spirit of Nilsen (2004), is at the heart of positive polarity; if an item has this presupposition, it is a positive polarity item and it cannot scope under negation. Items may move above negation or above the point in the structure where event variables are existentially closed. The implicature introduced at the implicature layer is what I call a partitive implicature. To appreciate what this implicature is, consider the contrast between *unos* and *algunos* in (24) (from Martí, to appear):

¹⁰ An example of an event distribution reading is as follows. Consider (2a) again. In the event distribution reading of this sentence, the children get lost in the forest one by one, not as a group. There are different events of getting lost, one per child.

- (24) a. *Algunos* alumnos míos de Historia llegaron tarde a clase
 b. *Unos* alumnos míos de Historia llegaron tarde a clase
 ‘*Algunos/Unos* history students of mine arrived late for class’

(24b) makes no claim as to whether there were other history students of mine who arrived late for class. Either way could be the case, according to (24b). Hence, I claim, *unos* does not induce a partitive implicature. (24a), on the other hand, implicates there were other history students of mine who were on time. Martí (to appear) shows that this meaning component of *algunos*, absent with *unos* (and with bare plurals), behaves like an implicature.

Bare plurals in either language spell out just the plural noun part at the bottom of the hierarchy. This means that bare plurals cannot make use of the any of the tools that are introduced higher in the hierarchy. For example, bare plurals cannot contain a presupposition layer in their structure; thus, bare plurals in either language are not positive polarity items. *Uns* and *unos* include this presuppositional level, which also introduces existential quantification. Thus, reaching this level automatically makes the item a positive polarity item and an existential quantifier.¹¹ One of the consequences of adopting the hierarchy is that, if an item spells out up to a particular level, that item must also spell out lower levels of the hierarchy. In the case of *uns* and *unos*, this means that they must also be semantically plural, since the plurality layer is below the existential quantification and presupposition layer. And they are.¹²

Whether an indefinite also spells out the movement above negation layer¹³ is correlated with whether it is capable of escaping the harmful effects on negation (recall that spelling out the presupposition layer entails that the item in question is a positive polarity item). Because *algunos* and *algun* spell out the entire hierarchy, they also spell out this layer and this entails, correctly, that they obligatorily scope above negation (the narrow scope reading is ruled out because they are positive polarity items). Because they also spell out the movement above $\exists e$ layer, they can give rise to event distribution readings, which, I assume, can come about by scoping above the point in the structure where existential binding of event variables occurs.¹⁴ Of course, *algunos* and *algun* are semantically plural. And so on.¹⁵

For the sake of completeness, here are the lexical entries I propose for these items (abstracting away from positive polarity, which is added as a presupposition in (25) and hence (27)) (‘Mol’ stands for “molecular/plural individual”):

- (25) $[[[\text{unos}]]] = \lambda P_{\langle \text{et} \rangle} . \lambda Q_{\langle \text{et} \rangle} . \exists x [\text{Mol}(x) \ \& \ P(x) \ \& \ Q(x)]$

¹¹ This is not to say that bare plurals in either language do not have existential import. They do, but this comes about via existential closure, not by becoming an existential quantifier.

¹² Whether bare plurals in either language are semantically plural or not is proposed to be an idiosyncratic property of the nouns themselves, not to be derived from the hierarchy.

¹³ We can think of the movement layers as introducing a feature [+movement above {negation, $\exists e$ }].

¹⁴ Though this is not the only way these readings can come about; the fact that Spanish bare plurals are semantically singular is blamed for the fact that they seem to give rise to event distribution readings; for details, see Martí (to appear).

¹⁵ See Martí (to appear) for the full-fledged discussion of how the facts in (19)-(22) are accounted for. My purpose in the text is to give an idea of how the hierarchy works, more than to indicate exactly how all of these properties follow from it.

$$(26) \quad [[\mathbf{alg-}]] = \lambda R_{\langle et, \langle et, t \rangle \rangle}. \lambda P_{\langle et \rangle}. \lambda Q_{\langle et \rangle}. R(P)(Q) \\ \text{Implicature: } R(P)(\{x: Q(x) = 0\})$$

$$(27) \quad [[\mathbf{algunos}]] = \lambda P_{\langle et \rangle}. \lambda Q_{\langle et \rangle}. [[\mathbf{unos}]](P)(Q) \\ \text{Implicature: } [[\mathbf{unos}]](P)(\{x: Q(x) = 0\}) \\ = \lambda P_{\langle et \rangle}. \lambda Q_{\langle et \rangle}. \exists x[Mol(x) \ \& \ P(x) \ \& \ Q(x)] \\ \text{Implicature: } \exists x[Mol(x) \ \& \ P(x) \ \& \ Q(x) = 0]$$

Unos spells out up to the movement above negation layer. *Alg-* spells out the implicature and movement above $\exists e$ layers. Thus, *algunos* spells out the entire structure down to plurality. In both cases, the plural noun spells out the noun layer. And bare plurals also spell out just this noun layer.

An important feature of this kind of approach, one that makes it particularly attractive, is that it makes sense of the fact that *un(o)s* is on the surface one of the building blocks of *algun(o)s*: in this analysis that is not only a morphological (or morpho-syntactic) fact but a semantic fact. Bare plurals are interesting from this perspective because they are the next step down: if you remove *unos*, you have the bare plural left, and the properties of the bigger NP are a superset of the properties of the smaller NP.

3.2 Building context dependence into the indefiniteness hierarchy

It is easy to build the context dependence of *algunos* into this system. We add an additional layer to the hierarchy in (23), call it the context dependence layer, and we say that *alg-* also spells out this layer. One way of doing just this is to modify the entry for *alg-* as in (28):

$$(28) \quad [[\mathbf{alg-}]] = \lambda R_{\langle et, \langle et, t \rangle \rangle}. \lambda P_{\langle et \rangle}. \lambda Q_{\langle et \rangle}. R(P \cap C)(Q) \\ \text{Implicature: } R(P \cap C)(\{x: Q(x) = 0\})$$

‘C’ is a contextual variable of the kind commonly assumed to occur with quantifiers such as English *every* (see von Stechow 1994, Martí 2003, among many others). It is a pronoun-like element that needs to fix its reference. It picks a contextually salient set of individuals as its referent. In the case of, for example, (2a), that would be the set of individuals who are children and are in Teachers A and B’s care.¹⁶ Since *unos* does not spell out the context dependence layer, its lexical entry does not manipulate a contextual variable and hence it is not context dependent.

3.3 Where is context dependence located in the hierarchy?

There are two main options for the location of context dependence: either at the very top of the hierarchy, or somewhere below that and above the movement above negation layer. Consideration of the Spanish facts doesn’t allow us to go further than this. But if we look at whether Brazilian Portuguese *alguns* is context dependent, we can do more: since it turns out

¹⁶ I make the implicature sensitive to this contextual variable as well because in an example like (2a), the idea is that there are some children of those that are in Teachers A and B’s care who didn’t get lost in the forest.

Let us look at the Brazilian Portuguese data. The examples here are parallel to those from section 2:

- (29a) cannot be followed by (the Brazilian Portuguese equivalent of) (3), repeated here. The new developments in (3) do not make the statement in (29a) 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, (29a) can be followed by (the Brazilian Portuguese equivalent of) (4), also repeated here: the statement that all of the teachers' children are back is compatible with some other group of children having gotten lost in the forest.¹⁸

¹⁷ European Portuguese *alguns* behaves just like Spanish *algunos*.

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

- (30) {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
 you know that children managed solve
 o desafio de Poincaré?
 the conjecture of
- 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!'
- (31) {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
 holy God children are jumping close
 demais da estrada!
 too of-the road
- b. B: Santo Deus! ✓*Uns* meninos estão brincando perto demais da estrada!
 'Oh my God! Some children are jumping too close to the road!'

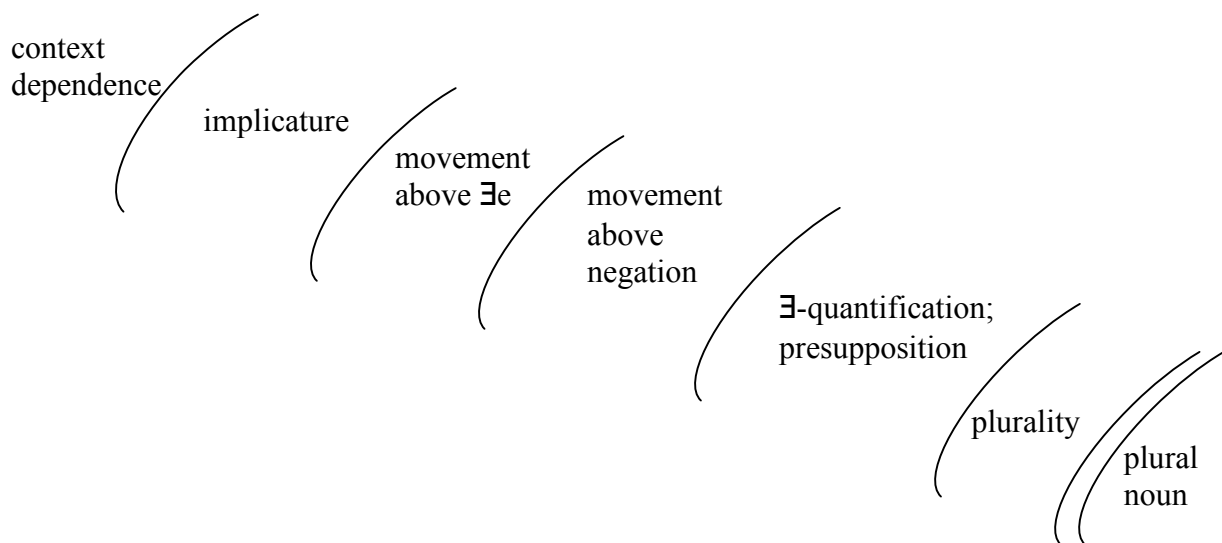
Recall that these contexts provide no set of children that can serve as referent for an ensuing pronominal item. In contrast with Spanish *algunos*, *alguns* (and *uns*, of course) is felicitous in such contexts.

Brazilian Portuguese *alguns* behaves in every other respect just like Spanish *algunos* (see Martí, to appear). Thus, *alguns* is ideal in that it allows us to see where in the indefinite hierarchy context dependence should be located. If context dependence is located at the top of the hierarchy, then we can understand this minimal difference between *alguns* and *algunos*: whereas *algunos* spells out the entire hierarchy, *alguns* spells out everything up to the context dependence layer. Locating context dependence anywhere lower than that would not allow us to explain the behavior of *alguns*: since it induces a partitive implicature, it would have to spell up to at least the implicature layer, but that would include the context dependence layer too.¹⁹

The proposal, then, is to modify (23) as in (32):

¹⁹ Matthewson (this volume) could provide us with another reason for building context sensitivity at the top of the hierarchy: St'át'imcets *nukw* induces a partitive implicature (it means something like 'some of') and it is context sensitive. This would indicate that *nukw* spells out the top two layers of the hierarchy and is quite similar to Spanish *alg-*.

(32)



The lexical entry for Brazilian Portuguese *alg-* is in (33); the one for Spanish *alg-* is repeated here for convenience:

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

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

3.4 Summary

In this section I have shown that a straightforward extension of the indefinite hierarchy in Martí (to appear) allows us to account for the behavior of *algunos* and to explain why *unos* is different: *algunos* is context dependent because it spells out the context dependence layer in the hierarchy; *unos* is not because it doesn't spell out that layer of the hierarchy. We know what it would take for *unos* to be context dependent: it would also have to be able to move above $\exists e$, the point at which event variables are existentially closed; that is, it would have to give rise to event distribution readings.

Consideration of the Brazilian Portuguese data allowed us to know about the indefinite hierarchy, since we were able to conclude that the context dependence layer occurs at the very top of the structure.

Interesting questions remain to be answered about the indefiniteness hierarchy. How cross-linguistically valid is it? Can it explain the properties of all indefinites, including those that are formed in many languages on the basis of interrogative words? If not, what has to be added or modified? Answering these questions is of course outside the scope of this paper. But data like the one presented in this paper can help us elucidate further aspects of the hierarchy and ultimately determine how valid it is in the explanation of the behavior of indefinites in different languages.

4 Consequences for domain restriction

There is a debate in the current literature (see Etxeberria 2005, this volume, Giannakidou 2004, Martí 2003, Stanley 2002; see also Matthewson 2001) as to whether the context dependence of quantification should be modelled on the quantifier itself or on the noun that usually accompanies this quantifier. If I am right in treating Spanish *alg-* as introducing context dependence, then we have an argument that the grammar must make it possible for context dependence to reside on the quantifier. Furthermore, in a language like Spanish, it cannot be the case that context dependence ever resides covertly in the noun, for otherwise *unos* NPs would be predicted to behave in exactly the same way as *algunos* NPs: this behavior would be the responsibility of *alg-* in the case of *algunos* NPs, and the responsibility of the noun in the case of *unos* phrases. A similar consequence ensues for Brazilian Portuguese: context dependence cannot reside in nouns in this language, for otherwise both *alguns* and *uns* would be predicted to be context dependent, contrary to fact.

This, of course, does not close the door to the possibility that in other languages, the context dependence of quantificational phrases comes from nouns, or from both quantifiers and nouns. Let us examine some of the recent claims that have been made about the location of context dependence inside quantificational phrases. Matthewson (2001) suggests, on the basis of data from St'át'imcets (Lillooet Salish) that, universally, domain restriction is introduced by a determiner that combines with nouns, i.e., that, in all languages, domain restriction is located on nouns. (34) shows some of the crucial data from St'át'imcets; the discontinuous determiner *i...a* (*ti...a* in the singular) is obligatory throughout ('det' stands for 'determiner'; 'pl' for 'plural'):

- (34) *St'át'imcets*
- | | | |
|------------------------|----------|---------------------------|
| a. <i>tákem</i> | i | <i>smelhmúlhats-a</i> |
| all | det.pl | woman(pl.)-det |
| 'all the women' | | |
| b. <i>zí7zeg'</i> | i | <i>sk'wemk'úk'wm'it-a</i> |
| each | det.pl | child(pl.)-det |
| 'each of the children' | | |

The claim is that the determiner *i...a* introduces domain restriction in addition to producing an argument of type <e> for the quantifiers *tákem* 'all' and *zí7zeg'* 'each'. Matthewson (2001: 159) claims that "St'át'imcets provides us with overt evidence about the nature and the position of the domain restriction of quantifiers", i.e., domain restriction is effected on the noun, a position that Stanley (2002) has also adhered to (see Cheng, this volume, for an argument that Chinese *dou* introduces domain restriction and is also a definite determiner). The data considered in the present paper show three things. First, domain restriction and the definite determiner are not necessarily related, since Spanish *alg-* is not a definite determiner and yet it introduces context dependence. Second, and perhaps more importantly, we must allow domain restriction to be located with the quantifier in order to explain the properties of *algunos*. And, third, and also quite importantly, in languages like Spanish and Brazilian Portuguese, (covert or overt) nominal restriction (exemplified overtly by St'át'imcets in (34)) must be disallowed, since otherwise we make the wrong predictions for *un(o)s* and *alguns*. The issue here is not only the question of how to reconcile Spanish/Brazilian Portuguese and St'át'imcets but, more generally, what the right approach is to the variation we find in the

Giannakidou (2004) has also recently challenged the conclusions in Matthewson (2001). She takes the definite determiner to introduce domain restriction, like Matthewson, but argues, on the basis of Greek data, that both the St'át'imcets option in (34) and the Greek option in (35) must be allowed:

- As Giannakidou reminds us, it seems necessary to say that even in St'át'imcets, domain restriction can be located on quantifiers, as the following data suggests:

- Etxeberria (2005, this volume) shows that the quantifier option must be allowed for Basque as well:

- Basque seems to make a distinction between ‘strong’ and ‘weak’ quantifiers, since with the latter, it is the nominal option that seems to be chosen.²⁰

²⁰ Ettxeberria claims that weak quantifiers in their ‘cardinal’ (non proportional) reading are incompatible with the definite article and hence with domain restriction. That is, in (i), only cardinal interpretations are possible; in (38), only proportional interpretations are possible:

- (38) *Basque*
- a. Ikasle-**etatik** zenbait
 student-det.pl some
 ‘some student’
 - b. *ikasle zenbait-**ak/-etatik**
 - c. Ikasle-**etatik** asko
 student-det.pl many
 ‘many students’
 - d. *ikasle asko-**ak/-etatik**

To sum up. In the formulation of a parameter that would tell us why the different languages make the choices that they make, then, it must be the case that (i) domain restriction is allowed on quantifiers (perhaps across the board) (Greek, Basque ‘strong’ determiners, *algunos*, St’át’imcets), (ii) domain restriction on the noun is allowed in some languages but not in others (yes in Basque and St’át’imcets, not in Spanish or Brazilian Portuguese). Notice that these consequences are independent of the particular way we choose to model context dependence (with or without a variable, with the variable in the syntax or not, etc.).

The idea that domain restriction is tied to the definite article raises the question of what the right analysis of *algunos de los* ‘some of the’ is. *Algunos* can be combined with *of the*, and in the works cited above this would be taken as an indication that (a) *algunos* by itself is not domain restricted, and (b) *los* effects (nominal) domain restriction. We have seen evidence above that (a) is not correct. Now I want to briefly look at the behavior of *algunos de los* and ask whether (b) is the case. Note that, if (b) is true, then there would be two contextually sensitive items in *algunos de los*. This is relevant because both Giannakidou (2004) and Etxeberria (2005, this volume) ban ‘double’ domain restriction.

Algunos de los is interpreted as relating to an existing discourse referent. We can see this by observing the effect that using *algunos de los* has in an example like (39):

-
- (i) *Basque*
- c. Zenbait politikari
 some politician
 ‘Some politician(s)’
 - d. *Zenbait-**a-k** politikari
 - e. Politikari asko
 politician many
 ‘Many politicians’
 - f. *Politikari asko-**a-k**

Etxeberria takes the fact that the Basque definite article, *-a-*, is absent with weak quantifiers in their cardinal reading to be an indication that the hallmark of these readings is lack of domain restriction. The behavior of *algunos* described in this paper would seem to suggest that this cannot be true: no matter what the reading, *algunos* is always accompanied by domain restriction (i.e., *algunos* is always accompanied by *alg-*). Cardinal readings, it would seem, can be readings derived from LFs that contain contextual variables. Further research is needed to clarify this issue.

- (39) {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:}
Teacher A: ¿Te has enterado? *Algunos de los* niños se han perdido en el bosque
'Have you heard? Some of the children have gotten lost in the forest'

(39) can be followed by (the Spanish version of) (3), repeated here, and it cannot be followed by (the Spanish version of) (4), also repeated here:

- (3) {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: We are so fortunate that what I said turned out to be false – we don't have to give bad news to any parent!
- (4) Teacher A: But at least all of our kids are back

This indicates that *algunos de los* must refer back to a previously introduced entity.

Algunos de los, as opposed to *algunos*, cannot appear in the existential construction:

- (40) a. *Hay *algunos de los* libros sobre la mesa
'There are some of the books on the table'
b. *Había *algunos de los* chavales demasiado cerca de la carretera
'There were some of the boys too close to the road'
c. *Hay *algunos de los* países que podrían desaparecer si no se les presta ayuda para combatir la enfermedad
'There are some of the countries that could disappear if they don't receive help to fight the disease'

An obvious candidate to blame for the behavior of *algunos de los* in (40) is *los*, the definite article. There is evidence that *los* in *algunos de los* introduces the presupposition that the set denoted by the head noun is non-empty. Consider (41) and (42) and compare them with (17) and (18), respectively:

- (41) Question asked by reader in on-line interview: In which areas of the world is the AIDS problem the worst?
Answer by doctor: In Subsaharan Africa, undoubtedly...
Algunos de los gobiernos con los recursos necesarios se están preparando para prestar ayuda. #De hecho, no existen gobiernos con los recursos necesarios (en el África Subsahariana)
'Some of the governments with the necessary resources are getting ready to help. In fact, there exist no governments with enough resources (in Subsaharan Africa)'

- (42) Question asked by reader in on-line interview: In which areas of the world is the AIDS problem the worst?

Answer by doctor: In Subsaharan Africa, undoubtedly. Our attempts at containment in this area have so far failed, and...

los políticos de los países ricos se están preguntando si *algunos de los* gobiernos con los recursos necesarios estarían preparados para prestar ayuda. #No están seguros de que existan gobiernos con tales recursos (en el África Subsahariana)

‘Policitians in rich countries are wondering whether some of the governments with the necessary resources would be prepared to help. They are not sure there exist governments with such resources (in Subsaharan Africa)’

Algunos de los presupposes that the set denoted by the head noun is non-empty (the presupposition comes in two flavors, depending on whether context dependence is taken into account or not). This, as we saw in section 2.2, is different with *algunos*. Following Zucchi (1995) and others, we can say that there is an incompatibility between this presupposition and the existential construction, whichever way we may want to actually formulate the incompatibility. Note that (43) is out:

- (43) *Hay los libros sobre la mesa
‘There are the books on the table’

According to this analysis, then, *algunos de los* introduces a presupposition that is lacking in *algunos* and that is blamed on *los* on the basis of independent evidence.

That *los* has this role to play does not, of course, mean that it doesn’t also effect context dependence. There is independent evidence that it indeed introduces context dependence as well, just like e.g., English *the*:

- (44) *Los* alumnos suspendieron el examen
the students failed the exam
‘The students failed the exam’

The sentence in (44), just like its English counterpart, is not interpreted as a statement about the biggest set of students there is (that is, the whole set of such individuals), but as a statement about a particular subset thereof, the subset of students that is relevant or salient in the context in which (44) occurs.

We have evidence, then, that *algunos de los* induces presuppositions that are lacking in *algunos* and also that *los* itself introduces context dependence. Since both *alg-* and *los* introduce context dependence, there is double context dependence in *algunos de los* and such an option must be allowed by the grammar, contra Giannakidou and Etxeberria²¹. Another conclusion we can draw from these considerations is that, in order to distinguish *unos* from

²¹ As Anastasia Giannakidou correctly points out, if it turns out that domain restriction on *algunos* is of a different kind from domain restriction on definites and strong quantifiers (recall footnote 7), then it might be that the ban on double domain restriction is a ban on two (or more) occurrences of the *same kind* of domain restriction.

algunos, we need to ban covert, not overt, nominal restriction. Overt nominal restriction, as in *algunos de los*, seems to be fine.

5 Data collection

This paper is based on a pilot study run with two native speakers of Iberian Spanish (both of them from the Madrid area; one of them is the author) and two native speakers of Portuguese (one of Brazilian Portuguese, the other of European Portuguese). There is a more comprehensive and better experiment in preparation that will test the judgements presented here with more native speakers and with more developed questionnaires.

The questionnaire used in the pilot study elicited judgements about truth-conditions or about contextual appropriateness, the most commonly used ways to probe semantic intuitions. In the items in the questionnaire, a context is first described to the speaker, after which the test sentence (known independently to be grammatical) is provided, and the subject is asked to judge whether the sentence is true in the given context or an appropriate description of the events in this context. Other times, certain questions about the contribution of the sentences are asked. For example, in (6), repeated here, speakers were asked whether the boys that were too close to the road were also fighting or not:

- (6) Upon arriving at the school and seeing several groups of boys fighting, the principal, sick and tired of seeing the same scene every day, mumbled to himself: “What a way to begin the day!”. In a panic, he realized that...
- a. ...había *unos chavales* demasiado cerca de la carretera
 - b. ...había *algunos chavales* demasiado cerca de la carretera
- ‘...there were some boys that were too close to the road’

For more remarks on methodology see e.g., Beck (2005), Matthewson (1999, 2001, 2004) and Martí (2003).

6 Conclusion

It has long been recognized that quantificational expressions in natural language are context sensitive, but the attention has generally focused on so-called ‘strong’ quantifiers like English *every*. In this paper I have looked instead at the context sensitivity of indefinite quantifiers. Spanish is a good language to look at because, if I am right, it has two kinds of morphologically related indefinites: a context-dependent one, *algunos*; and a context-independent one, *unos*.

Having argued for a treatment of *algunos* in which *alg-* introduces context dependence, I turned to consider the consequences of this proposal for our views on domain restriction and quantification. The analysis of the Spanish (and Brazilian Portuguese) data seems to suggest that Matthewson’s (2001) approach to cross-linguistic quantification, based on the structure of quantificational phrases in St’át’imcets, cannot be right. *Algunos* shows that the grammar must allow domain restriction to be a property of quantifiers, and *un(o)s* and *alguns* show that the grammar must make it possible for a language to ban nominal domain restriction. I suggested above that we need to revisit the debate about the cross-linguistic nature of quantification and domain restriction in the light of these data. What exactly the principles or universal properties are in this respect, as well as exactly what the

parameters are, remain as open questions. This is an issue that can only be solved by deepening our understanding of quantification in the languages discussed here as well as in other languages, an enterprise that this paper, like many of the others discussed in it, aimed at contributing to.

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