

A unified analysis of Spanish *algún/algunos*: anti-specificity, plurality, and NP-anaphora

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Abstract

In this paper, we address the difference between the Spanish singular indefinite *algún* and its plural variant *algunos*. The indefinite exhibits conflicting behaviour that has remained an open puzzle so far: in the singular, it behaves as an anti-specific indefinite (Giannakidou and Quer (2013), Alonso-Ovalle and Menéndez-Benito (2010a)), but the plural has been claimed to be D-linked and partitive-like Martí (2009). We offer a unified analysis by proposing that we are dealing with an anti-specific indefinite in both cases. The apparent differences follow from NP-ellipsis, and the way referential vagueness interacts with plurality. We reveal data showing that there is variation in the plural variants regarding D-linking—which none of the existing analyses can account for. Our account offers a compositional analysis of the various readings with a fairly limited set of empirically motivated assumptions, while strengthening the position that *anti-specificity*, as the dual of *specificity*, has a concrete place in grammar.

1 Introduction: anti-specificity and Spanish *algún/algunos*

Language after language, we find a class of indefinite determiners that can only be used to signal lack of knowledge of the speaker of what their referent is. Various labels have been used to refer to this class such as *ignorance* indefinites, *epistemic* indefinites (Jayez and Tovenia (2006); Alonso-Ovalle and Menéndez-Benito (2015) *a.o.*), *extremely non specific* indefinites (Haspelmath (1997); Farkas (2002)), *anti-specific* indefinites (Giannakidou and Quer (2013), Giannakidou and Yoon (2016)). Giannakidou and Quer (2013), in particular, explicitly propose that the phenomenon is the opposite of specificity, and use the term *anti-specificity* to capture the speaker uncertainty, ignorance, or indifference associated with this kind of indefinite.

The key property of anti-specificity—underlying the common characterizations of ignorance, epistemicity, or indifference—is that the speaker doesn’t have a specific value in mind; she is therefore in a state of referential indeterminacy. This is exactly the opposite from specificity which relies, in von Heusinger (2011) words, on “the communicative notion of *referential intention*. A speaker uses an indefinite noun phrase and intends to refer to a particular referent, the referent “the speaker has in mind”.” (von Heusinger (2011):10). Referential intention is a foundational drive for specificity narrowing down the domain of the indefinite to a single, fixed value; anti-specificity, Giannakidou and Quer (2013) and Giannakidou and Yoon (2016) argue, is the absence of referential intent, and this means that the value of the indefinite is not fixed in the speaker’s mind. If the value is not fixed, then there is *variation*, and variation is by default *referential vagueness*, *i.e.* an epistemic state where two or more possible values are available for the indefinite. Referential vagueness can be strengthened into exhaustive variation producing *free choice*, where it is required both that there be multiple values and that we exhaust them all (see original ideas in Giannakidou (1998), Giannakidou (2001)).¹

¹Kratzer and Shimoyama (2002) refer to *referential vagueness* as ‘free choice implicature’, a label intended to show that variation is weaker in this case. Weaker means not exhaustive.

One of the most well-known members of the anti-specific paradigm, responsible to a great part for initiating these discussions, is the Spanish singular indefinite *algún*. As we see below, *algún* cannot be used if the speaker intends to refer to a specific referent:

- (1) Tengo que quedar con *algún* profesor. #Es aquel señor de allí.
 have comp meet with some professor is that guy of there
 I have to meet with some professor (or other). #It's that guy over there.
- (2) Tengo que quedar con *algún* profesor. #Se llama Bob Smith.
 have comp meet with some professor se call Bob Smith
 I have to meet with some professor (or other). #His name is Bob Smith.
- (3) Tengo que quedar con *algún* profesor. #Es el director del Departamento de
 have comp meet with some professor is the director of-the Department of
 Filosofía.
 Philosophy
 I have to meet with some professor (or other). #He is the head of the Philosophy
 Department.
- (4) Ha llamado *algún* estudiante. #¡Adivina quién!
 have called some student guess who!
 Some student (or other) called. #Guess who!

The second sentence in the four examples above introduces a specific value (by ostension, by naming it, by describing it, or by asking the hearer to guess who the referent is). When the speaker knows (or believes she knows) what the target value of the indefinite is, the previous use of the anti-specific determiner becomes pragmatically inappropriate.²

If instead of *algún* we use the ‘unmarked’ run-of-the-mill Spanish indefinite *un*, we see that the latter has no trouble appearing in contexts where the value of the referent is known to the speaker:

- (5) Tengo que quedar con *un* profesor. Es aquel señor de allí.
 have comp meet with a professor is that guy of there
 I have to meet with a professor. It's that guy over there.
- (6) Tengo que quedar con *un* profesor. Se llama Bob Smith.
 have comp meet with a professor se call Bob Smith
 I have to meet with a professor. His name is Bob Smith.
- (7) Tengo que quedar con *un* profesor. Es el director del Departamento de
 have comp meet with a professor is the director of-the Department of
 Filosofía.
 Philosophy
 I have to meet with a professor. He is the head of the Philosophy Department.
- (8) Ha llamado *un* estudiante. ¡Adivina quién!
 have called a student guess who!
 A student called. Guess who!

²We will not be discussing in this paper the cross-linguistic variation shown by anti-specific indefinites concerning these four methods of identification. The reader is referred to [Aloni and Port \(2013\)](#).

Observing all the examples above, it becomes clear that *algún* has constrained distribution, unlike *un* which seems to be unmarked and freer in distribution. Greek *kapjos* has similar behaviour to *algún* and contrasts with the Greek indefinite article *éna*—an observation supported also by experimental data (Giannakidou et al. (2011)). The distribution of *algún* appears to be constrained by anti-specificity: if the speaker knows who the referent is, *un* is going to be fine, while *algún* will be ruled out. Note, importantly, that the only morphosyntactic difference between the two indefinites is *alg-*; one must therefore address the role of this morpheme.

The plural variant *algunos*, in contrast to the singular, has been characterized as discourse dependent, partitive-like (cf. Martí (2009)), a contrast resulting in a schizophrenic indefinite: anti-specific in the singular but specific-like, discourse dependent, and ‘partitive’ in the plural. The particular claim is that the plural *algunos* must be linked to a previously introduced antecedent (cf. Gutiérrez-Rexach (2001), Gutiérrez-Rexach (2010), Martí (2008), Martí (2009)). Consider the following scenario, from Martí (2009):

- (9) Teachers A and B are on an excursion with [a group of children, of whom they are in charge]_K. Teacher A comes to teacher B running and says:
- a. ¿Te has enterado? [*Algunos niños*]_{K,#J} se han perdido en el bosque.
 - b. ¿Te has enterado? [*Unos niños*]_{K,J} se han perdido en el bosque.
Have you heard? *Algunos/Unos* children got lost in the forest.

In this context, *algunos* can only be used to make reference to the set of children of whom teacher A and teacher B are in charge (expressed by the subindex letter *K*), and says that some of the children of that group got lost in the forest. As a result, the *algunos* example is not compatible with the continuation in (10) because with this continuation it ends up being false that some of the children of the group of teachers A and B got lost. On the other hand, the run-of-the-mill plural indefinite determiner *unos* can be used to make reference both to the group of children of whom teachers A and B are in charge (expressed by the subindex letter *K*, or to a different group of children (expressed by the subindex letter *J*). As a consequence, the *unos* example is felicitous with the continuation in (10).

- (10) 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 and teacher A says: “We are so fortunate that what I said turned out to be false; we don’t have to give bad news to any parent!”

Thus, by using the indefinite *algunos*, the speaker intends to refer to a set of children salient in the previous discourse, *i.e.* *algunos* appears to require a familiar index, a requirement at first glance inconsistent with the anti-specificity of the singular variant. *Unos* appears to be neutral with respect to indexing.

Take another example, this time from Leonetti (1999):

- (11) Se han salvado doce pasajeros. [#*Unos/Algunos*] estaban durmiendo en el momento del accidente.
cl have saved twelve passengers unos/algunos were sleeping in the moment of.the accident
Twelve passengers were saved. *Unos/Algunos* were sleeping at the time of the accident.

In this example, *algunos* makes reference to a subset of the set of those twelve passengers that were saved, *i.e.* it establishes a link with the previously introduced set of twelve passengers. Note that in this case the indefinite *algunos* occurs by itself, and this is going to be important for the analysis we will offer. *Unos*, on the other hand, is unable to create a link with the previously introduced set of twelve passengers.

Finally, the fact that *algunos* needs a familiar index can also be seen in the following example, from Martí (2009).

- (12) A and B are mathematicians at the University of Saarbrücken. A comes to B running. Children are something that has not been on their minds or conversations for a long time:
- a. ¿Sabes qué? #¡*Algunos niños* han conseguido resolver la conjetura de Poincaré!
 - b. ¿Sabes qué? ¡*Unos niños* han conseguido resolver la conjetura de Poincaré!
You know what? Some children have managed to solve Poincaré’s conjecture!

In a context such as the one here where there is no entity available for future reference, *i.e.* the set of children has not been previously introduced, it is not possible to use *algunos*, as expressed by the hash.

In sum, *algunos* in the examples above behaves like a discourse linked indefinite. The reading correlates with *algunos* appearing in preverbal subject position. The D-linked reading of *algunos* appears to be, at first glance, in contrast with the anti-specificity reading we just established for the singular; authors have thus claimed that with the plural “no epistemic effect arises” (*cf.* [Alonso-Ovalle and Menéndez-Benito \(2010a\)](#)). We will show that this claim doesn’t actually capture the nature of the reading of plural *algunos*. The contrast is only epiphenomenal: the anti-specificity of the singular still holds in the plural, but the effect can be masked by topicality of the NP domain and the presence of an elliptical NP anaphor. The conflicting behavior has remained an open puzzle so far.

The paper is organized as follows. We start in section 2 with discussing the concepts of specificity and anti-specificity, in particular the incarnation of *referential vagueness* that is the key factor with *algún* and *algunos*. We then discuss the plural *algunos* in section 3 focusing on the cases discussed in the literature as partitive-like. In section 4 we offer data with *algunos* challenging the generalization that *algunos* is context specific. In section 5 we present our unifying analysis. We close in section 6 by offering final remarks on the comparison between the *alg*-indefinite and the indefinite article *unos*.

2 Anti-specificity and singular *algún*

2.1 Specificity, anti-specificity, and variation

Indefinite NPs have been the object of intense study since Russell’s seminal treatment of them as existential quantifiers in the early 20th century. In the past 30 years, a recurring observation in the linguistic semantic literature is that indefinites, unlike other quantifiers, can be interpreted as akin to referential expressions (*cf.* [Fodor and Sag \(1982\)](#), [Farkas \(1981\)](#), [Abusch \(1994\)](#), [Reinhart \(1997\)](#), [Ruys \(1992\)](#), [Winter \(1997\)](#), [Kratzer \(1998\)](#), [Schwarzschild \(2002\)](#), [von Heusinger \(2011\)](#), [Ebert and Hinterwimmer \(2013\)](#), [Endriss \(2009\)](#) to mention just some works, as we cannot possibly do justice to the whole literature here).

Indefinites can take narrow, wide, or intermediate scope with respect to other quantifiers in the sentence, and they can even scope from syntactic islands, contrary to, say, universal quantifiers. This free scoping has challenged the status of indefinites as existential quantifiers proper, and, in order to handle it, in the course of the 90’s we witness analyses of indefinites as Skolemized functions, *i.e.* indefinites appear in formulas with existential quantifiers removed, and replaced by functional variables. [Reinhart \(1997\)](#) and [Winter \(1997\)](#) propose that indefinites denote choice functions, these are Skolem functions that choose a fixed element from a (non-empty set) *A*. The choice function captures semantically the flexible scope property of indefinites and their referential interpretation without necessitating syntactic movement.

The referential reading of the indefinite is discussed as specificity, and is typically thought to relate to wide scope— though it arises, of course, also without scope interaction, revealing, as we said earlier, the speaker’s referential intent ([von Heusinger \(2002\)](#), [von Heusinger \(2007\)](#), [von Heusinger \(2011\)](#); [Farkas \(1994\)](#), [Farkas \(2002\)](#), [Ionin \(2006\)](#)). That specificity correlates with scope can be seen in the following example:

- (13) Every tourist visited a museum.
- a. Every tourist visited *the same museum, namely Le Louvre*.
 - b. Every tourist visited *possibly different museums*.

A sentence like (13) with the indefinite NP *a museum* can obtain the two interpretations paraphrased in (13a) and (13b). In the specific reading, exemplified in (13a), the referent of the indefinite is *determined* (Farkas (2002)), that is, we make reference to the single museum that we have in mind, *Le Louvre*. In the non-specific reading on the other hand, exemplified by the paraphrase in (13b), the referent is not determined and we can be making reference to different museums depending on each tourist.

Specificity, of course, arises also in absence of scope interaction:

- (14) Ariadne met a friend last night. Her name is Evangeline.

Here, *a friend* is used specifically by the speaker, with the intention to refer to a particular person she knows named Evangeline. Specificity, von Heusinger (2011) states, is “a semantic-pragmatic notion that distinguishes between different uses or interpretations of indefinite noun phrases”, and is related to “the communicative notion of *referential intention*. A speaker uses an indefinite noun phrase and intends to refer to a particular referent, the referent “the speaker has in mind”.” (von Heusinger (2011):10).

von Heusinger (2011) continues saying that:

In its prototypical use, the concept of specificity is associated with the communicative notion of referential intention. Grammatical contrasts, such as specific articles, indefinite pronouns or differential object marking associated with this function are also used to express relations between discourse entities which do not express “referential intentions” in the literal sense. Rather, it seems that specificity is a grammaticalized means to structure the relations among discourse items: A specific indefinite is *referentially anchored* to a salient discourse participant or another discourse referent, *i.e.* the referent of the specific expression is linked by a contextually salient function to the referent of another expression (von Heusinger (2002):45).

Under this account the context has to provide two parameters: the anchoring function and the anchor itself. The speaker has to be able to specify the anchoring function, while it must be unfamiliar for the hearer, the same way as the intended referent must be unfamiliar. (von Heusinger (2011):17).

Referential intention and referential anchoring as concepts of specificity constitute refinements of Fodor and Sag (1982) original account. Specific indefinite NPs can, but don’t have to, be marked by specificity markers such as, *e.g.* English *a certain*, referential *this*.

- (15) a. Every tourist visited *this great museum*, namely Le Louvre.
 b. Every tourist visited *this great museum*, #possibly different museums.

Specificity markers can be quite systematic cross-linguistically, and can involve also case marking (as in Turkish, Finish), determiners and adjectives (German, see *e.g.* recent discussions in the articles in Ebert and Hinterwimmer (2013)). The presence of the specificity marker forces the specific interpretation and is conventionally associated with the specific determiners, typically as a definedness condition (a presupposition or a felicity condition). The typical analysis of specific indefinites contains the regular existential denotation of the indefinite augmented by a specificity condition (see *e.g.* von Heusinger’s work, Hinterwimmer and Umbach (2013), Ebert et al. (2013), Ionin (2006), and the papers in Ebert and Hinterwimmer (2013)). Ebert et al. (2013), for instance, argue for an analysis of specific *gewiss*-indefinites according to which “the existential quantification is supplemented by the requirement that the speaker knows the answer

to the question who or what the referent of the indefinite is (*cf.* Abusch and Rooth (1997)).” Ionin similarly adds a felicity condition of specificity to specific *this*.

Given the concept of specificity and its particular implementations via specificity conditions, Giannakidou and Quer (2013) and Giannakidou and Yoon (2016) suggest that the phenomenon of referential vagueness is the absence of specificity—and implement a formalism (that we adopt here) by using conditions in the spirit of the works cited about for specificity. In their system, determiners like *algún*, *kapjos*, *irgendein* and the like (including NPI indefinites in Greek and Korean) are the duals of specificity markers, *i.e.*, anti-specificity markers. Given von Stechow’s distinctions, anti-specificity is the absence of referential anchoring and the absence of referential intent. A speaker uses anti-specific indefinites only if she does not have the intent to refer to a particular individual, she does not have a particular individual in mind. Anti-specific determiners produce anti-specificity, just like specificity determiners produce specificity.

Anti-specific indefinites are common cross-linguistically, and have been acknowledged and studied in many languages. In all cases, the denotations of the indefinites are augmented by anti-specificity conditions: Latin (Giannolo (2013)), Spanish (Alonso-Ovalle and Menéndez-Benito (2010a), Alonso-Ovalle and Menéndez-Benito (2013a), Alonso-Ovalle and Menéndez-Benito (2015); Giannakidou and Quer (2013); Etxeberria and Giannakidou (2014), *a.o.*), Italian (Zamparelli (2007); Aloni and Port (2010), Aloni and Port (2014); *a.o.*), French (Jayez and Tovena (2002), Jayez and Tovena (2006), Jayez and Tovena (2011)), Romanian (Farkas (2002), Farkas (2007); Fălăuş (2009), Fălăuş (2011), Fălăuş (2014), *a.o.*), Catalan and Greek (Giannakidou and Quer (2013)), Korean (Giannakidou and Yoon (2016)), German (Kratzer and Shimoyama (2002); Eckardt (2007); Aloni (2011); Aloni and Port (2014); *a.o.*), Basque (Etxeberria (in preparation)). Anti-specificity has two incarnations: *referential vagueness* and *free choice*. As we said earlier, referential vagueness is the default, and it is the notion that is relevant for both the Spanish indefinites *algún* and *algunos*.

2.2 Referential Vagueness versus free choice

An anti-specific indefinite is by default a referentially vague indefinite (RVI). As such, it conveys indeterminacy of reference—which, as we said, is absence of referential intent and absence of referential anchoring. Absence of these means *variation*: the speaker does not have a fixed value in mind but is considering *multiple* values for the indefinite. Variation seems to be the most intuitive way to capture the absence of referential intent, it must therefore be understood as the hallmark of anti-specific indefinites, just as singleton reference is the hallmark of specific indefinites. Variation signals that the speaker is considering *alternative* values in the domain, but makes no claims about the totality of the domain.

Giannakidou and Quer (2013) formulate the basic variation as referential vagueness. It is simply a condition that there be some variation in the values of the indefinite: $\llbracket \text{algunos} \rrbracket$

- (16) Referential Vagueness (Giannakidou and Quer (2013)):
 A sentence containing a referentially vague indefinite α will have a truth value iff:
 $\exists w_1, w_2 \in W: \llbracket \alpha \rrbracket^{w_1} \neq \llbracket \alpha \rrbracket^{w_2}$; where α is the referentially vague indefinite.

The worlds w_1, w_2 are epistemic alternatives of the speaker. A referentially vague indefinite is ‘epistemic’, just like the specific indefinite, but the epistemic component is vagueness, which means that there must be a choice of two or more values. Given that an unembedded sentence is interpreted with respect to the speaker, we assume that the relevant worlds for assessment come from the speaker’s belief state, the set of worlds compatible with what she believes/knows. By using an RVI, the speaker is in a state of referential indeterminacy, *i.e.*, she believes that there is more than one value for the RVI in the context of use. Here is how an example works:

- (17) $\llbracket [\text{María salió con algún lingüista}] \rrbracket$ will be defined in c , only if:
 $\exists w_1, w_2 \in W: \llbracket \alpha \rrbracket^{w_1} \neq \llbracket \alpha \rrbracket^{w_2}$; where α is the referentially vague indefinite;

if defined, $\llbracket \text{María salió con algún lingüista} \rrbracket$ is true if there is at least one assignment g that verifies the condition $\text{linguist}(x) \wedge \text{date}(m, x)$.

- (18) Particular individual in mind = fixed value in the speakers belief state $M_B(s)$:
 $w_1 \rightarrow \text{Bill}, w_2 \rightarrow \text{Bill}, w_3 \rightarrow \text{Bill}, w_4 \rightarrow \text{Bill}$
- (19) No particular individual in mind = no fixed value in $M_B(s)$:
 $w_1 \rightarrow \text{Bill}, w_2 \rightarrow \text{Nicolas}, w_3 \rightarrow \text{John}, w_4 \rightarrow ?$

Algún, in this theory has the following denotation: the definedness condition of referential vagueness, plus the ordinary denotation of the indefinite:

- (20) $\llbracket \text{algún } N \rrbracket$ is defined only if there is no unique individual that the speaker of the sentence has in mind, and this individual is N , *i.e.* $\exists w_1, w_2 \in W : \llbracket \text{algún } N \rrbracket^{w_1} \neq \llbracket \text{algún } N \rrbracket^{w_2}$; if defined: $\llbracket \text{algún } N \rrbracket = \lambda f_{\langle et, et \rangle} \lambda P_{\langle et \rangle} \lambda Q_{\langle et \rangle} . \exists x [f(P)(x) \ \& \ Q(x)]$

The variation of referential vagueness has also been captured as an anti-singleton constraint in [Alonso-Ovalle and Menéndez-Benito \(2010a\)](#).³

- (21) $\llbracket \text{algún} \rrbracket = \lambda f_{\langle et, et \rangle} \lambda P_{\langle et \rangle} \lambda Q_{\langle et \rangle} : \text{anti-singleton}(f) . \exists x [f(P)(x) \ \& \ Q(x)]$

Referential vagueness requires anti-singleton domains, but the domains need not exhaustified. Exhaustification of the domain happens with free choice, *e.g.* Spanish *cualquiera*. Here are two ways to capture formally the domain exhaustification of free choice; in both cases as a presupposition:

- (22) Presupposition of exhaustive variation of free choice items ([Giannakidou \(2001\)](#)):
 A sentence containing a free choice indefinite α will have a truth value iff:
 $\forall w_1, w_2 \in W : \llbracket \alpha \rrbracket^{w_1} \neq \llbracket \alpha \rrbracket^{w_2}$; where α is the free choice indefinite.
- (23) Free choice: exhaustive variation ([Giannakidou and Quer \(2013\)](#)):(32b)).
 Presupposition of exhaustive variation: $\forall d \text{ in } D_{FCI} : \exists w \text{ in } W . Q(d)(w)$, and no other member of the domain d' is such that $Q(d')(w)$; where D is the domain of the FCI, and Q the VP predicate.

Giannakidou’s presupposition of exhaustive variation was the first formulation of domain exhaustification for free choice using varying worlds (sometimes called i(dentity) alternatives)—and directly contrasts with the referential vagueness condition, as can be seen, which only existentially quantifies of these. Thus, both the free choice and the referential vagueness condition create anti-specificity by imposing variation, but free choice requires that all values be considered, producing a strong, universal-like effect. RVIs come out as weaker indefinites, simply indicating absence of referential intention (therefore lacking the universal dimension).

The contrast between the two is discussed by [Giannakidou and Quer \(2013\)](#) and [Giannakidou and Yoon \(2016\)](#) where very detailed examination of the contrastive behaviour is given. Consider, as a brief illustration, the following context:

³[Giannakidou and Quer \(2013\)](#) point out that, if there is a choice of *only* two, speakers prefer to use the Spanish run-of-the-mill indefinite *un*, as shown in the following example, taken from [Giannakidou and Quer \(2013\)](#).

- (1) Context: I am pointing to two rooms, and say:
 Juan se ha escondido en #alguna/una habitación, pero no estoy segura de cuál.
 Juan hid in #some/a room, but I’m not sure which one.

This seems to suggest that referential vagueness may be stronger than at least two, perhaps akin to *more than two*. There may also be worlds for which we do not know whether there will be a value or not. There are additional nuances that we abstract away from because they don’t seem to be relevant to our main puzzle which is the singular vs. plural contrast.

(24) Context: A variety of delicious desserts are presented at the buffet in front of me. A says:

A: ¡Prueba algún dulce/alguno de estos dulces!
 ?Eat some (or other) of these sweets!

These imperatives are gentle invitations to eat some sweet or other. An ideal context is one where the addressee is not showing much of an appetite, and the speaker invites her to try. In uttering the sentence, the speaker is not inviting the addressee to consider all sweets—this is not a relevant goal in the context; she is merely inviting the addressee to consider some (maybe only a few that she likes) and try. This is in stark contrast with the free choice invitation:

(25) ¡Prueba cualquier dulce!
 try any sweet
 Eat any sweet!

With the FCI, the addressee is invited to consider every option. The addressee now came to the dessert table with a great appetite, and the speaker happily invites her to try lots of options. The exhaustive variation presupposition of free choice is indeed clear in this context (and similar examples have been offered for Greek, Catalan and Korean RVIs and FCIs in [Giannakidou and Quer \(2013\)](#), [Giannakidou and Yoon \(2016\)](#)).

Crucially, there is another reading emerging with the singular *algún* which we believe is a by-product of the *minimal* variation of referential vagueness. This is the so-called *paucal* reading identified recently in [Martí \(2015\)](#). This reading appeared already in the imperative example above where the addressee is invited to eat some cookie or other, possibly more than one but still a small number. Here are some examples from [Martí \(2015\)](#):

- (26) a. Hay alguna mosca en la sopa.
 there.is algún.fem fly in the soup
 There is one or a very small number of flies in the soup.
 b. Juanito todavía tiene algún diente de leche.
 Juanito still has algún tooth of milk
 Juanito still has one or a very small number of baby teeth.

In this reading, the morphologically singular *algún NP* may refer to more than one fly or tooth, just as in the imperative examples. This reading seems to indicate *quantity* vagueness, similar to the one observed with *some or other* in English—also a RVI:

(27) Bernat spent the morning reading some book or other.

This sentence, just like the earlier ones with *algún*, is ambiguous between reading one book and reading a small number of books. The *paucal* reading is impossible with the unmarked indefinite article:

(28) Bernat spent the morning reading a/one book.

[Martí \(2015\)](#) claims that paucity is a syntactic feature provided by *alg-*:

(29) $\llbracket \text{alg-} \rrbracket = \llbracket \text{-additive} \rrbracket \lambda P \lambda x. Q(x) \ \& \ Q \subset P \ \& \ \neg \forall y (Q(y) \rightarrow Q(x \sqcup y))$

However, if paucity is indeed a syntactic feature of *alg-*, we expect it to arise whenever we have *algún*, contrary to fact. Observe that in our initial examples there is no paucal reading:

(30) a. Ha llamado algún estudiante. #¡Adivina quién!
 have called some student guess who!
 Some student called. #Guess who!

- b. María está saliendo con algún profesor del Departamento de Lingüística.
 María is going.out with some professor of.the Department of Linguistics
 María is going out with some Professor of the Linguistics Department.

These sentences cannot mean that more than one student called, or that María is dating more than one person, showing that paucity is not always present with *algún*. This is a problem if paucity is a syntactic feature of *algún*. Additionally, paucity does not arise with the plural, hence an account that takes the paucal reading to be inherent to *alg-* cannot help to better understand the singular vs. plural distinction.

If we assume referential vagueness, on the other hand, we can treat the apparent paucal cases as *quantity* vagueness. We propose to capture quantity vagueness as an implicature of *algún*:

- (31) Quantity Vagueness implicature:

A sentence containing *algún* triggers quantity vagueness if:

$\exists w_1, w_2 \in W: \llbracket n \rrbracket^{w_1} \neq \llbracket n \rrbracket^{w_2}$; where n is the number indicated by *algún*.

The alternatives to n will start with the number designated by *algún*, hence *one*. Since numbers are ordered, the alternatives of n will be two, three, and given that we need minimal variation this can go up to only small numbers. Quantity vagueness is an implicature since it is not always present, which suggests that it can be cancelled. We will not deal with the paucal reading further in the paper, but we wanted to show that it follows from the assumption that referential vagueness is minimal variation. The unmarked indefinite does not trigger quantity vagueness because it doesn't require variation.

We put together now the analysis of singular *algún* below:

- (32) $\llbracket \text{algún } N \rrbracket$ is defined only if there is no unique individual that the speaker of the sentence has in mind, and this individual is N , *i.e.* $\exists w_1, w_2 \in W: \llbracket \text{algún } N \rrbracket^{w_1} \neq \llbracket \text{algún } N \rrbracket^{w_2}$; if defined: $\llbracket \text{algún } N \rrbracket = \lambda P_{\langle et \rangle} \lambda Q_{\langle et \rangle}. \exists x[P(x) \ \& \ Q(x)]$

- (33) Quantity Vagueness implicature of $\llbracket \text{algún } N \rrbracket$:

A sentence containing $\llbracket \text{algún } N \rrbracket$ triggers quantity vagueness if:

$\exists w_1, w_2 \in W: \llbracket n \rrbracket^{w_1} \neq \llbracket n \rrbracket^{w_2}$; where n is the number indicated by *algún*, namely one.

We will use these as the foundation for the *alg*-indefinite, and argue that the trigger of referential and quantity vagueness is the morpheme *alg-*. Let us proceed now to examine how this analysis captures the properties and behaviour of the plural *algunos*.

3 Plural *algunos*: apparent discourse linking

As we said at the beginning, in contrast to the singular, the plural *algunos* has been claimed to be linked to a previously introduced antecedent (*cf.* Gutiérrez-Rexach (2001), Gutiérrez-Rexach (2010), Martí (2008), Martí (2009)). Recall our initial examples in (9), copied here for convenience, from Martí (2009):

- (34) Teachers A and B are on an excursion with [a group of children, of whom they are in charge]_K. Teacher A comes to teacher B running and says:
- a. ¿Te has enterado? [*Algunos niños*]_{K,#J} se han perdido en el bosque.
 - b. ¿Te has enterado? [*Unos niños*]_{K,J} se han perdido en el bosque.
 Have you heard? *Algunos/Unos* children got lost in the forest.

As we argued above, by using the indefinite *algunos*, the speaker appears to have referential intention to a *set*: she wants to refer to a set of children that is salient in the previous discourse, *i.e.* *algunos* appears to require a familiar index. *Unos*, on the other hand, appears to be neutral with respect to indices. As a consequence, the *unos* example in (34b) is felicitous with the continuation in (35) while the *algunos* example in (34a) is not.

- (35) 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 and teacher A says: “We are so fortunate that what I said turned out to be false; we don’t have to give bad news to any parent!”

The following example, from [Leonetti \(1999\)](#), is used to make the same point:

- (36) Se han salvado doce pasajeros. [#*Unos/Algunos*] estaban durmiendo en el momento del accidente.
 cl have saved twelve passengers unos/algunos were sleeping in the moment of.the accident
 Twelve passengers were saved. Unos/Algunos were sleeping at the time of the accident.

In (36), *algunos* makes reference to a subset of the set of those twelve passengers that were saved (note again that *algunos* occurs by itself, a fact that is going to be important for the analysis we will offer). *Unos* on the other hand is unable to create a link with the previously introduced set of twelve passengers.

Finally, in a context such as the one in (37), where there is no entity available for future reference, it is not possible to use *algunos*, as expressed by the hash in (37a). Example from [Martí \(2009\)](#).

- (37) A and B are mathematicians at the University of Saarbrücken. A comes to B running. Children are something that has not been on their minds or conversations for a long time:
 a. ¿Sabes qué? #¡*Algunos niños* han conseguido resolver la conjetura de Poincaré!
 b. ¿Sabes qué? ¡*Unos niños* han conseguido resolver la conjetura de Poincaré!
 You know what? Some children have managed to solve Poincaré’s conjecture!

Thus, in these examples *algunos* behaves like a discourse linked indefinite. Note importantly that the reading correlates with *algunos* appearing in preverbal subject position. This behaviour of *algunos* appears to be, at first glance, in contrast with the anti-specificity reading of *algún*; authors have thus claimed that with the plural “no epistemic effect arises” ([Alonso-Ovalle and Menéndez-Benito \(2010a\)](#)). In what follows, we show that the contrast is epiphenomenal and that referential vagueness also holds with the plural, and is in fact responsible for the partitive reading. D-linking is distinct from partitivity. To substantiate these claims, let us consider first cases where the plural *algunos* does *not* receive a D-linked reading.

4 Non-partitive, non-D-linked interpretation of *algunos*

In this section, we show that there is actually variation in the plural, *i.e.*, there are contexts where *algunos* does not need to make reference to a previously introduced set. In these cases, it is undistinguishable from *unos* in terms of D-linking. One such context are **existential sentences**; take the following example, from [Martí \(2009\)](#).⁴

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

⁴The reader is referred to [Gutiérrez-Rexach \(2001\)](#) for more examples of this kind.

In the example in (38a), the boys who are too close to the road can be some of those boys who are fighting, but they do not have to be. Thus, *algunos* is not necessarily linked to a previously introduced set. As a consequence, the behaviour of *algunos* and *unos* can be said to be equivalent in existential contexts as both can be used to make reference to a previously introduced set or to a different one. At the same time, referential vagueness seems to hold for *algunos*: the speaker does not know who the students are, she does not have specific student identities in mind when uttering this sentence.⁵

Algunos can also be used in generic contexts (example from Martí (2009)):

- (39) *Algunos unicornios* tienen cuernos de apariencia metálica.
 some unicorns have horns of appearance metallic
 Some unicorns have horns of metallic appearance.

Generic statements are typically unrestrictive and are not spatio-temporally bound. Thus, *algunos* in (39) does not make reference to a previously introduced set of unicorns. Again, the speaker doesn't seem to have any specific unicorns in mind.⁶

In the end of the previous section, we mentioned that *algunos* forces partitive-like and D-linked interpretations when in preverbal position. What is really interesting, but has escaped attention so far, is that when *algunos* appears in postverbal position no D-linked interpretation is obtained.

- (40) Llegaron *algunos/unos chavales* a la oficina.
 arrived *algunos/unos* boys to the office
 Some boys arrived to the office.

In (40), as was the case in the previous examples, both *algunos* and *unos* are undistinguishable with respect to D-linking, *i.e.* they do not need to make reference to a previously introduced set. In all these cases (*i.e.* existential sentences, generic sentences, postverbal subjects) *algunos* exhibits the expected referentially vague interpretation: the speaker does not intend to refer to a specific individual or set, does not have a specific individual or set in mind. Plural (subset) values can be drawn freely from the NP domain of *algunos*. Hence, this non-D-linked plural use is consistent with the singular *alg*-indefinite. We formulate the general condition below:

- (41) $\llbracket \text{alg- N} \rrbracket$ is defined only if there is no unique individual or plurality that the speaker of the sentence has in mind, *i.e.* $\exists w_1, w_2 \in W : \llbracket \text{alg N} \rrbracket^{w_1} \neq \llbracket \text{alg N} \rrbracket^{w_2}$;
 if defined: $\llbracket \text{algunos N} \rrbracket = \lambda P_{\langle et \rangle} \lambda Q_{\langle et \rangle} . \exists X [P(X) \ \& \ Q(X)]$

Given the anti-specific uses of plural *algunos* in existential and generic sentences and with postverbal subjects revealed here, we cannot but conclude that the discourse specific interpretation of *algunos* does not exemplify the general case but emerges as a special case in a particular syntactic position (preverbal). A unified analysis between the singular and the plural, therefore, becomes plausible in terms of referential vagueness—and this should be, of course, the null hypothesis. In the rest of the paper, we will build further this analysis.

⁵Cf. Section 6, where we present our thoughts about *unos*.

⁶It must be acknowledged that a taxonomic reading can indeed arise in a sentence like (39); see below:

- (1) *Algunos unicornios* tienen cuernos de apariencia metálica. En concreto, el dinosaurio X, el
 some unicorns have horns of appearance metallic in specific the dinosaur X the
 dinosaurio Y, y el dinosaurio Z
 dinosaur y and the dinosaur Z
 Some unicorns have horns of metallic appearance. Namely, dinosaur X, dinosaur Y, and dinosaur Z.

The taxonomic reading presumes a (non-exhaustive) list, and it is conceivable that items in the list can be named. This does not mean that the speaker knows the exact values of the elements in the named subpluralities of *algunos*; it merely suggests that the speaker is familiar with the subpluralities, something that is not excluded by referential vagueness.

5 A unifying analysis: referential vagueness, plurality, NP anaphora

5.1 A previous analysis of the plural

Martí (2009) claims that *algunos* contributes a ‘partitivity implicature’. The idea is cast within an indefiniteness hierarchy where context dependency occupies the highest level of that hierarchy. The analysis works as shown:

$$(42) \quad \llbracket \mathbf{unos} \rrbracket = \lambda P_{\langle et \rangle} \lambda Q_{\langle et \rangle} . \exists x [\text{Mol}(x) \ \& \ P(x) \ \& \ Q(x)]$$

(‘Mol’ stands for ‘molecular/plural individual’)

$$(43) \quad \llbracket \mathbf{alg-} \rrbracket = \lambda R_{\langle et \langle ett \rangle \rangle} . \lambda P_{\langle et \rangle} . \lambda Q_{\langle et \rangle} : R(P \cap C)(Q)$$

Implicature: $R(P \cap C)(Q)(x: Q(x) = \emptyset)$

$$(44) \quad \llbracket \mathbf{algunos} \rrbracket = \lambda P_{\langle et \rangle} . \lambda Q_{\langle et \rangle} : \llbracket \mathbf{unos} \rrbracket(P)(Q)$$

Implicature: $\llbracket \mathbf{unos} \rrbracket(P)(x: Q(x) = \emptyset)$
 $= \lambda P_{\langle et \rangle} . \lambda Q_{\langle et \rangle} : \exists x [\text{Mol}(x) \ \& \ P(x) \ \& \ Q(x)]$
Implicature: $\exists x [\text{Mol}(x) \ \& \ P(x) \ \& \ Q(x)] = \emptyset$

According to Martí “both *unos* and *algunos* induce the entailment that the set denoted by the head noun is non-empty” (Martí (2009):115). Furthermore, the element responsible is *alg-*, *i.e.* *alg-* is the element that introduces the context variable C.⁷ *Unos* is not context dependent because *unos* does not contain *alg-*.

The variation in the data presented in the previous section suggests that this analysis cannot be correct. We observed contexts (some of them, in fact, drawn from Martí (2009)) where *algunos* is referentially vague (existential sentences, generic statements, and postverbal subject position in general). These data challenge the position that addition of *alg-* brings C and forces reference to a discourse salient set. This is clearly not the case in existential sentences, generic statements, and postverbal subjects. The asymmetry is in need of explanation, but Martí’s system, unfortunately, does not allow to even state the contrasts since application of *alg-* to a plural indefinite will always contribute C. Martí could at best invoke implicature cancellation in these contexts but, unless we know why in these particular contexts the implicature is cancelled, such an explanation is not much more than handwaving. Notice, on the other hand, that once we put the variable C in the logical form (as Martí does) D-linking is built into the semantics and a cancellation account would be very hard to defend.

A more basic problem is: if the *alg-* element creates the contextual dependency via C with *algunos*, why does this not happen in the singular? Why isn’t the singular C sensitive and D-linked? Adopting Martí’s analysis for the plural entails that the same element, *alg-*, contributes D-linking and familiarity when combined with a plural and non-familiarity when combined with the singular— an obviously paradoxical position. To get out of the dilemma, Martí would have to argue that there are two *alg-*, one that contributes C and combines only with the plural, and one that contributes referential vagueness and combines only with the singular—and that would be a rehash of a cancellation account. But without having an explanation of why the C effect is lost in the singular, and why it is lost with some (but not all) plurals, such an explanation cannot be convincing. Our approach relies on the null hypothesis that the contribution of *alg-* in the plural is merely the extension of *alg-* in the singular: it contributes referential vagueness as we suggested. The D-linking, which as we showed appears to be just a special case, will be explained by ellipsis and topicality of the overt partitive when present.

⁷Assuming C for *alg-* conflicts with the observation, established in a variety of language types, that introducing the C variable is a property of definites (Giannakidou (2004), Etxeberria (2005), Etxeberria and Giannakidou (2009), Etxeberria and Giannakidou (2013)). From this perspective, a C-introducing indefinite has to be very carefully motivated, something that is not done in Martí (2009).

5.2 Proposal, Part I: *algunos* is referentially vague but it can take ellipsis

Recall our unifying analysis for the singular *algún* and the plural *algunos*:

- (45) $\llbracket \text{algún/algunos } N \rrbracket$ is defined only if there is no unique individual or plurality N that the speaker of the sentence has in mind, *i.e.* $\exists w_1, w_2 \in W : \llbracket \text{alg } N \rrbracket^{w_1} \neq \llbracket \text{alg } N \rrbracket^{w_2}$;
if defined: $\llbracket \text{algunos } N \rrbracket = \lambda P_{\langle et \rangle} \lambda Q_{\langle et \rangle} . \exists X [P(X) \ \& \ Q(X)]$

As we argued, the presence of *alg-* signals referential vagueness. *Alg-* is the element introducing referential vagueness both in the singular and in the plural, hence the default interpretation of the *alg-* indefinite is referential vagueness, regardless of number.⁸ To account for the preverbal subject position where *algunos* receives the D-linked reading (*cf.* section 3) we argue that it matters whether the nominal expression *algunos* combines with is an elliptical plural or not. The elliptical plural is anaphoric, therefore responsible for the familiar indexing. NP ellipsis licenses the same familiar discourse anaphoric reading also in the singular, as we show. Martí’s discourse dependence effect, thus, is not due to *alg-* but to the presence of an elliptical anaphor with both the singular and the plural.

To see the point about ellipsis, consider example (11), repeated here as (46):

- (46) Se han salvado doce pasajeros_K. *Algunos*_K estaban durmiendo en el momento
cl have saved twelve passengers *algunos* were sleeping in the moment
del accidente.
of.the accident

Twelve passengers were saved. *Algunos* were sleeping at the time of the accident.

In this example, the NP [*pasajeros* ‘passengers’] is not overt, but *algunos* makes reference to a subset of the set of those twelve passengers that were saved, *i.e.* it establishes a link with the previously introduced set of twelve passengers. We argue that here we have ellipsis, *i.e.* an anaphoric pronominal expressed in (47).

- (47) $\llbracket \text{algunos} \rrbracket = \text{algunos} + \text{pro} \llbracket +\text{anaphoric index} \rrbracket$

The elliptical *pro* is an NP anaphor with a familiar index on a par with English *one-anaphora* in sentences like (48) (*cf.* Kester (1996a), Kester (1996b), Saab (to appear); *cf.* also Alexiadou and Gengel (2011), Corver and van Koppen (2011)). The presence of this familiarity indexed *pro* forces *algunos* to pick up the index that comes with it.

- (48) Mary brought the yellow T-shirts, and Ariadne *the blue ones*.

Ones is an overt NP anaphor that takes reference from the previously introduced nominal *T-shirts*. In Spanish and Greek, nominal ellipsis is licensed without *one*, but with a null *pro*—and it is possible with both adjectives and indefinite determiners (see Giannakidou and Stavrou (1999) for the initial observation):

- (49) a. I Maria agorase kitrina T-shirts, ke i Ariadni kokkina [*pro*].
the Maria bought yellow T-shirts and the Ariadne red
Mary brought yellow T-shirts, and Ariadne red ones.
b. I Maria agorase polla T-shirts, alla i Ariadni liga [*pro*].
the Maria bought many T-shirts but the Ariadne few
Mary brought many T-shirts, but Ariadne few.

⁸Our analysis, naturally, holds for the whole paradigm that makes use of *alg-*, *i.e.* singular masculine *algún* and *alguno*, singular feminine *alguna*, plural masculine *algunos*, plural feminine *algunas*, neuter human *alguien*, neuter non-human *algo*; but to keep things simple, we will only be considering *algún* and *algunos* (and by extension the feminine *alguna* and *algunas*).

Spanish patterns with Greek, as we see.

- (50) a. María compró las camisetas amarillas, y Ariadne las [pro] rojas.
Maria bought D.pl T-shirts yellow.pl and Ariadne D.pl red.pl
Mary brought the yellow T-shirts, and Ariadne the red ones.
- b. María compró muchas camisetas, pero Ariadne pocas [pro].
Maria bought many T-shirts but Ariadne few
Mary brought many T-shirts, but Ariadne few.

Since null *pro* ellipsis is allowed with indefinite determiners generally, it seems only reasonable to assume it in the case of *algunos* in (46). If this is so, then one must concede that it is *NP-anaphora* that brings about the familiar indexing and D-linked reading. Hence the context dependency of *algunos* has nothing to do with *alg-*, *pace* what Martí (2009) argues, but it has everything to do with the presence of an elliptical NP anaphor.

Singular *algún*, on the other hand, needs to always combine with a nominal expression, that is, it cannot appear by itself as shown by the ungrammaticality of (51b). Furthermore, and this is interesting for what we will be arguing below, *algún* does not accept appearing with a partitive construction as shown in (51c).

- (51) a. Ha llamado algún estudiante.
has called some student
Some student called.
- b. *Ha llamado algún.
has called some
- c. *Ha llamado algún de los estudiantes.
has called some of the students

In order to create a construction that involves ellipsis, Spanish makes use of the indefinite *algun-o*, which is the singular masculine indefinite that is used in cases of ellipsis.⁹

- (52) a. Alguno ha llegado tarde.
some.masc has arrived late
Some has arrived late.
- b. *Alguno chico ha llegado tarde.
some boy has arrived late

Now, with singular *alguno* it is possible to make reference to a previously introduced set. Take the following context:

- (53) Context: Today we have a very famous writer visiting our school, when she comes to my classroom I introduce my students to her saying “these are my students”, and then, just wanting to impress her, I continue:

⁹With the singular feminine indefinite *algun-a* both cases, with and without ellipsis, are fully grammatical:

- (1) a. Alguna ha llegado tarde.
some.fem has arrived late
Some has arrived late.
- b. Alguna chica ha llegado tarde.
some.fem girl has arrived late
Some girl arrived late.

What we propose in this paper for *algún* and *alguno* applies to the feminine cases.

- a. Alguno ha leído Hamlet.
 some.masc read Hamlet
 Some (of them) read Hamlet.
- b. Alguno de ellos ha leído Hamlet.
 some.masc of them read Hamlet
 Some of them read Hamlet.

Our proposal for *alguno* builds on what we just said for plural *algunos*. Thus we propose that with *alguno* we have an elliptical anaphor as in (54):

$$(54) \quad \llbracket \text{alguno} \rrbracket = \text{alguno} + \textit{pro} \llbracket +\text{anaphoric index} \rrbracket$$

Hence in both the singular and the plural case, ellipsis triggers an anaphoric *pro*, and its presence entails dependence on a previously introduced set, *i.e.* familiarity and D-linking. As we showed, this holds both for the plural and the singular in the presence of ellipsis. Incidentally, one might argue that the *-o* in *alguno* in actually the overt spell out of the NP anaphor.

Having clarified the role of ellipsis, we move on now to the behaviour of plural indefinite *algunos* in contexts with no ellipsis.

5.3 Proposal, part II: *algunos NP*, domain topicality, and plural vagueness

Algunos NP contains an overt domain (NP), therefore the idea of anaphoric *pro* is in not applicable. For these cases, we will argue, discourse dependency relies on whether the NP is topical or not. The familiarity/D-linking effect emerges with a topical NP; partitivity, on the other hand, is due to plural vagueness. Our analysis can be summarized as follows:

- If *algunos NP* appears in the preverbal position, the NP gets associated with a given domain and gets a familiar (D-linked) interpretation. This is so because the preverbal position in Spanish is a topic position.
- If *algunos NP* appears in *non-topic position*, *i.e.* postverbal subject, the NP is not topical, it therefore does not require a familiar index.

One very important assumption that we adopt from the literature is that the preverbal subject position in Spanish is a topic position (see *a.o.* Uribe-Etxebarria (1992), Barbosa (1995), Alexiadou and Anagnostopoulou (1998), Ordóñez and Trevino (1999)). The unifying point in our analysis rests on the fact that both singular *algún* and plural *algunos* are referentially vague, and as such they cannot be topics. But the plural NP can be topical and this is what happens in the preverbal subject position. The NP's 'topicality' means that it provides a specific (*i.e.* known to the speaker) domain for *algún*. *Algún NP* as a constituent, crucially, cannot be a topic because it forces singleton reference, as we see next. Topicality of the plural NP is responsible (in the absence of ellipsis) for the discourse dependent reading. With both a topical NP and an elliptical *pro* we have an anaphoric NP in a broader sense (*i.e.* discourse anaphoric/dependent).

The singular *algún* will work as follows. Consider:

- (55) Context: Today we have a very famous writer visiting our school, when she comes to my classroom I introduce my students to her saying "these are my students", and then, just wanting to impress her, I continue:
 - a. #Algún estudiante ha leído Hamlet.
 algún student read Hamlet
 Some student read Hamlet.

The reason why *algún estudiante* is not allowed in the context of (55) should already be obvious. If we assume that Spanish preverbal subjects are topics (*cf.* Uribe-Etxebarria (1992), Barbosa (1995), Alexiadou and Anagnostopoulou (1998), Ordóñez and Trevino (1999)), this would entail that the singular *algún estudiante* gets interpreted specifically, with referential intent, *i.e.*, as referring to a single individual that the speaker has in mind. Specificity is the prerequisite for topicality with indefinites, but is clearly at odds with referential vagueness. The specificity of the speaker knowing the actual value of *algún estudiante* is not compatible with referential vagueness which indicates lack of referential intent. The topic interpretation of the singular, therefore, violates referential vagueness:

- (56) Fixed value in $M_B(s)$:
 $w_1 \rightarrow \text{Bill}, w_2 \rightarrow \text{Bill}, w_3 \rightarrow \text{Bill}, w_4 \rightarrow \text{Bill}$

As soon as we make the set of students plural, as in (57), the sentence becomes grammatical:

- (57) *Algún estudiante de estos* ha leído Hamlet.
 algún student of these has read Hamlet
 Lit.: Some student of these read Hamlet.

In this construction, *algún estudiante de estos* ‘some student of these’ also appears in topic position, but the difference with the example in (55) is that here *algún estudiante* ‘some student’ is not forced into a specific interpretation because we have an overt partitive (*de estos*) which introduces a plural domain. This allows the referential vagueness of *algún estudiante* to be satisfied because despite the fact that the set to which we make reference is specific, the speaker remains uncertain about the individual to which *algún estudiante* makes reference. When we have an overt partitive *algún estudiante* receives value from a discourse given context. In a similar vein, it is possible to have *algún estudiante* (feminine *alguna estudiante* in this case) with a definite partitive:

- (58) *Alguna estudiante de las* de primer año ha suspendido el examen.
 some student of the.pl of first year failed the exam
 Some student of the first year (students) failed the exam.

We see therefore that even the singular *algún* allows discourse dependence with an overt partitive. The effect is clearly not due to *alg-* but to the partitive (or ellipsis, as shown in section 5.1), *i.e.* to the presence of an anaphoric domain.

Let us consider now plural *algunos*. We repeat below referential vagueness of the plural:

- (59) Referential Vagueness condition for plural *algunos*:
 A sentence containing plural *algunos* designated here as α_{PL} will have a truth value iff:
 $\exists w_1, w_2 \in W: [[\alpha_{PL}]]^{w_1} \neq [[\alpha_{PL}]]^{w_2}$

Since now the alternatives to α will be pluralities (or sets), a consequence of referential vagueness is that the speaker needs to consider at least two pluralities. This creates the partitive effect: the nominal NP gives the domain D of possible values, and if α is a singular, the values assigned to α will be individuals in D . If we have a plural α_{PL} , the values assigned to α_{PL} will be pluralities in D —which means that with *algunos* we are looking at subdomains D' in the domain D of possible values ($D' \subset D$). D' has to be a proper subset of the set D because in situations where D' is equal to D , there is no variation and referential vagueness would be violated.

- (60) Plural vagueness: Let D be {María, Pedro, Mónica, Ariadne, Bernat, Bill}
 a. $w_1 \rightarrow D_1 = \{\text{Bill}, \text{Ariadne}\}$
 b. $w_2 \rightarrow D_2 = \{\text{Mónica}, \text{Pedro}, \text{Bernat}\}$

- c. $w3 \rightarrow D3 = \{\text{Mónica, María, Ariadne}\}$
- d. $w4 \rightarrow D4 = \{\text{Pedro, Bernat}\}$
- e. ...

Here we have various subdomains of D being picked up in the epistemic alternatives of the speaker who is in a state of vagueness about who the actual students were. Notice what happens when the speaker knows exactly who the students were:

- (61) Context: A class of students is leaving on a summer camp. Instructor A knows all of them because they are former students. Instructor B doesn't know them at all because it is the first day of her new job. Instructor B says to instructor A:
- a. *Algunos alumnos* han llegado tarde. #Eran María, Pedro y Mónica.
Some students arrived late. Namely/They were María, Pedro, and Mónica.

Here, the reference in all words would be the specific plurality consisting of *María, Pedro, and Mónica*:

- (62) Plural vagueness: Let D be {María, Pedro, Mónica, Ariadne, Bernat, Bill}
- a. $w1 \rightarrow D1 = \{\text{María, Pedro, Mónica}\}$
 - b. $w2 \rightarrow D2 = \{\text{María, Pedro, Mónica}\}$
 - c. $w3 \rightarrow D3 = \{\text{María, Pedro, Mónica}\}$
 - d. $w4 \rightarrow D4 = \{\text{María, Pedro, Mónica}\}$

The subset {María, Pedro, Mónica} to which *algunos alumnos* makes reference to is specific and known to the speaker, and this means invariable reference as above. This is a reading violating vagueness. Crucially, our conclusion and judgement here differs from [Alonso-Ovalle and Menéndez-Benito \(2010a\)](#), who claim that with the plural *algunos* there is lack of “epistemic” (*i.e.* referential vagueness) effect. As we note above, referential vagueness is real with the plural.

To see this point further, take the following example with the same context as before:

- (63) Context: A class of students is leaving on a summer camp. Instructor A knows all of them because they are former students. Instructor B doesn't know them at all because it is the first day of her new job. Instructor B says to instructor A:
- a. *Algunos alumnos* han llegado tarde. Eran María, Pedro, Monica, y *no sé quién más*.
Some students arrived late. They were María, Pedro, Monica, and I don't know who else.

The reason why the sentence above improves when compared to (61) is due clearly to the addition of *no sé quién más* ‘I don't know who else’ which allows the names of the students to be a proper subset of the total set of students that arrives late. Vagueness is satisfied because we can have alternative sets again:

- (64) Plural vagueness: Let D be {María, Pedro, Mónica, Ariadne, Bernat, Bill}
- a. $w1 \rightarrow D1 = \{\text{María, Pedro, Mónica, Ariadne}\}$
 - b. $w2 \rightarrow D2 = \{\text{María, Pedro, Mónica, Bernat}\}$
 - c. $w3 \rightarrow D3 = \{\text{María, Pedro, Mónica, Bill}\}$
 - d. ...

Further evidence comes from predicative uses. *Algunos NP*, being referentially vague, cannot be used to predicate of a plural set because it would have to do that totally, and this would violate plural vagueness. Observe the ungrammaticality of *algunos NP* in predicative position

in the following examples. Note that the neutral, unmarked indefinite *unos* is grammatical in these cases.¹⁰

- (65) a. *Estos son algunos estudiantes.
 these are some students
 b. Estos son unos estudiantes.
 these are some students
 These are some students.

Algunos estudiantes makes reference to the totality of the set D of students and, as we argued, *algunos* being a referentially vague indefinite needs to be making reference to a subdomain D' in the domain D of possible values ($D' \subset D$). In a situation where the domain D consists of the individuals *María, Pedro, Mónica, Ariadne, Bernat, Bill*, referential vagueness will be satisfied if there are at least differing values but also if there is unexplored space in the domain, at least one possibility for which we do not know whether there will be a value or not. If we take the entire D, plural vagueness is violated because there can be no variation. The speaker needs to consider different sub-pluralities as options in the domain D, and this is what gives both vagueness and the partitive reading if the NP is given.

As extra evidence for referential vagueness with *algunos*, it is helpful to consider how it interacts with FCIs. In line with *e.g.* [Giannakidou \(1997\)](#), [Giannakidou \(2001\)](#), FCIs are indefinites that have the presupposition of exhaustive variation. Exhaustive variation means that we look at *all* possible values for the FCI in the domain of quantification, *i.e.*, we exhaust all available values. FCIs, as we said at the beginning, are anti-specific indefinites, but in contrast to RVIs their presupposition requires exhaustification of the alternatives. Recall the variant from Giannakidou:

- (66) Presupposition of exhaustive variation of free choice items ([Giannakidou \(2001\)](#)):
 A sentence containing a free choice indefinite α will have a truth value iff:
 $\forall w_1, w_2 \in W: [[\alpha]]^{w_1} \neq [[\alpha]]^{w_2}$; where α is the free choice indefinite.

Hence, referential vagueness presents the base presupposition of variation (existential), and the free choice condition is a universal condition to exhaust the domain. The Spanish FCI *cualquier* is a typical case, as we mentioned at the beginning:

- (67) Juan ha hablado con cualquier estudiante.
 Juan have talked with any student
 Juan talked to any student.

Given exhaustive variation, in order to interpret *cualquier estudiante* above we need to consider all the possible alternatives, *i.e.* *students*, in this case. Every theory of FCIs assumes some variant of this idea, some with covert universal quantifiers (as, *e.g.*, in [Alonso-Ovalle and Menéndez-Benito \(2010a\)](#), [Kratzer and Shimoyama \(2002\)](#)). Now, interestingly, the FCI can attach to the regular, unmarked Spanish indefinite *un*:

¹⁰This also applies to singular *algún* and *un* as shown by the following examples. It appears then that the *alg-*indefinite, because it has additional content (the presupposition of referential vagueness) cannot undergo type shift to a predicative type, which would require a neutral, unmarked indefinite, as it typically the case:

- (1) a. *Este es algún estudiante.
 this is some student
 b. Este es un estudiante.
 this is a student
 This is a student.

- (68) Juan ha hablado con un estudiante cualquiera.
 Juan have talked with one student any
 Juan talked to (just) any student.

The produced reading is akin to the one obtained with *just any* in English (but this is not so important for our point here). Crucially, if we replace *un* with the referentially vague *algún* the FCI *cualquier* is odd:

- (69) #Juan ha hablado con algún estudiante cualquiera.
 Juan have talked with some student any

This oddness, we argue, illustrates a presupposition conflict. The two anti-specific indefinites, *i.e.* *algún* and *cualquier* require that we consider opposite things: the former requires non-exhaustive variation while the latter (the free choice indefinite) requires exhaustive variation. Plural *algunos* is equally odd with the FCI.¹¹

- (70) #Juan ha hablado con algunos estudiantes cualquiera.
 Juan have talked with some.pl student.pl any

Hence, we can safely assume that both *algún* and *algunos* are referentially vague, regardless of number.

5.4 Alonso-Ovalle & Menéndez-Benito on the plural

In this section, we want to contrast our account of the plural with the claim by [Alonso-Ovalle and Menéndez-Benito \(2010a\)](#) that with the plural *algunos* there is no epistemic effect. For them, the alleged lack of epistemic effect follows from their account of the singular. For the singular, the epistemic effect of *algún* comes about because this item triggers a competition with a number of alternative assertions, which correspond to different ways of narrowing the domain down to a singleton. In the case of *algunos*, none of those alternative assertions constitute viable competitors. As a result, ‘no epistemic effect arises’.

More generally, any domain of the form $\{a_1 \dots a_n, d_1 \dots d_n\}$, where $\{a_1 \dots a_n\}$ are atomic individuals and $\{d_1 \dots d_n\}$ plural individuals, will yield the same proposition as the domain $\{d_1 \dots d_n\}$, with only the plural individuals. This means that, in order to determine what propositions the ‘mixed’ subdomains generate, we need to only consider the plural individuals that they contain.

- (71) a. $\Box_w (\exists x [|x| > 1 \ \& \ x \in \{\text{Juan, Pedro, Sara, Pedro} \oplus \text{Juan, Pedro} \oplus \text{Sara}\} \ \& \ \text{lives-with}_w(x)(m)])$
 ‘In all accessible worlds, there is a plural individual x in $\{\text{Juan, Pedro, Sara, Pedro} \oplus \text{Juan, Pedro} \oplus \text{Sara}\}$ such that María lives with x .’
 b. $\Box_w (\exists x [|x| > 1 \ \& \ x \in \{\text{Pedro} \oplus \text{Juan, Pedro} \oplus \text{Sara}\} \ \& \ \text{lives-with}_w(x)(m)])$
 ‘In all accessible worlds, there is a plural individual x in $\{\text{Pedro} \oplus \text{Juan, Pedro} \oplus \text{Sara}\}$ such that María lives with x .’

¹¹Interestingly, the unmarked plural indefinite *unos* can be combined with the FCI *cualquiera* despite the fact that *unos* is marked plural and *cualquiera* is marked singular. This shows that the fact that *algunos* cannot combine with *cualquiera* has nothing to do with number specifications, but with the fact that *algunos*, in opposition to what happens with *unos*, is a referentially vague indefinite:

- (1) a. Estos no son unos informes cualquiera.
 these neg are some.pl report.pl any
 These are not just any reports.
 b. Pero no quieren unos clones cualquiera, sólo quieren clones con talento.
 but neg want some.pl clone.pl any only want clone with talent
 But they do not want just any clones, they only want the talented ones.

The following are equivalent: (73b) entails (72b)

- (72) a. {Juan \oplus Pedro, Juan \oplus Sara, Pedro \oplus Sara, Juan \oplus Pedro \oplus Sara}
 b. \Box_w (María lives with Juan and Pedro in $w \vee$ María lives with Juan and Sara in $w \vee$ María lives with Pedro and Sara in $w \vee$ María lives with Juan and Pedro and Sara in w)
- (73) a. {Juan \oplus Pedro, Juan \oplus Sara, Pedro \oplus Sara}
 b. \Box_w (María lives with Juan and Pedro in $w \vee$ María lives with Juan and Sara in $w \vee$ María lives with Pedro and Sara in w)

This predicts no ‘epistemic effect’ because in the plural the singular options do not count, and do not create competition with the plural alternatives.

It seems difficult to see how this type of account can be extended to capture the generalizations and novel data that we revealed in this paper, more specifically:

- the role of ellipsis in creating context dependency
- the referential vagueness effect with existential sentences and generics
- the D-linking effect as it manifests itself in the preverbal vs. postverbal distinction
- proper partitivity of the plural
- the non-cooccurrence of *alg-* with the FCI

The facts and contrasts we have discussed show that referential vagueness is also present in the plural, we can therefore not accept that “no epistemic effect arises”. We showed a number of examples where the epistemic effect does arise with the plural. In all these respects, the Alonso-Ovalle & Menéndez-Benito account, by deriving “no epistemic effect” in the plural, fail to capture the nuances we observed, and predict invariable behaviour of *algunos* akin to the regular indefinite equivalent to *unos*—contrary to fact.

Let us finally note that the characterization of “(no) epistemic effect”, as it stands in this theory, is itself vague and not accurate enough to capture what exactly the plural readings are—and how they differ from, and are similar to, the singular. The role of the domain NP seems to be missed, and so is the paucal reading—which we explained as an implicature arising from the variation requirement of vagueness. Unlike the proposal we put forth, the claim that “no epistemic effect arises” collapses the issue of anti-specificity and contextual dependency in the *alg*-indefinite, thereby obscuring a concrete discussion of what the plural reading actually is.

5.5 Summary

Summarising, we offered a comprehensive proposal for singular and plural *alg*-indefinites, the main ingredients of which are as follows:

- *Alg-* contributes the presupposition of referential vagueness. The *alg*-indefinite, therefore, regardless of number, is referentially vague.
- The partitive effect arises with the plural in satisfaction of referential vagueness. In the general case, it arises because we are considering alternative pluralities.
- When we have nominal ellipsis, ellipsis is responsible for context dependence on a previously introduced set.
- If *algunos NP* appears in topic position, *e.g.* preverbal subject position, then NP is a discourse given set and this entails a familiar index.

- If *algunos NP* does not appear in topic position (*e.g.* postverbal subject position, generic statements, existential sentences) the domain denoted by the NP is not given, and as a result, we do not have a familiar index. The partitive interpretation, crucially, remains as an implication of referential vagueness.

Our account is able to cover a wide range of varied data that none of the existing analyses can deal with— by maintaining a uniform account of the *alg-* indefinites and capitalizing on properties of the structure (ellipsis or not, syntactic position), and plurality.

6 Plural *unos*

For the sake of completeness, we want to go back to the unmarked plural article *unos* (*cf.* Gutiérrez-Rexach (2001)). It behaves as expected for an indefinite that is subject to novelty. It always carries a novel index in the sense of Heim (1982):

(74) Heim’s Novelty/familiarity condition (Heim 1982: 298):

- Indefinite descriptions introduce *new entities* into the discourse while definite descriptions must denote entities which have previously been introduced in the discourse, *i.e.* refer to existing entities.
- Let p be an atomic formula containing noun phrase NP_i . Then, for all $\langle g, w \rangle \in C$: if NP_i is definite, i must be in $dom(g)$, and if NP_i is indefinite, i must not be in $dom(g)$.

Unos introduces a novel plural discourse referent. A typical effect of Heim’s condition in (74) is that *unos* lacks a D-linked or partitive interpretation. The discourse referent it introduces cannot be linked to a referent present in the discourse already. Accordingly, *unos* is incompatible with the partitive construction: $\#unos$ de los *NP* in Modern Spanish. Notice also that the respective $\#a$ (*boy*) of the *boys* is bad in English.

Thus, *unos* is the unmarked indefinite in that it carries a novel index, and just like English *a* or Spanish singular indefinite *un* it can get a specific or a non-specific interpretation. Recall that specificity is not in conflict with novelty, since the value the specific indefinite has is not familiar, *i.e.* it is not part of the common ground. Being unmarked means that *un/unos* will be used when the speaker is more neutral with respect to expectations in the context. *Algunos* is marked, as we showed because, in addition to novelty, it has the presupposition of referential vagueness which is brought about by *alg-*. If the speaker has no expectations, the unmarked indefinite *unos* will be used.

This idea appears to be on the right track, but it leaves at least one thing unexplained: if *unos* introduces a novel plural discourse referent, how do we get the two possible interpretations in a sentence like (75), repeated here from (9)?

- (75) Teachers A and B are on an excursion with [a group of children, of whom they are in charge] $_K$. Teacher A comes to teacher B running and says:
 ¿Te has enterado? [*Unos niños*] $_{K,J}$ se han perdido en el bosque.
 Have you heard? Some children got lost in the forest.

Recall that in (75), the plural indefinite determiner *unos* is neutral with respect to indices: it can introduce a novel index (expressed by the subindex letter J), but it can also be used to make reference to the group of children of whom teachers A and B are in charge (expressed by the subindex letter K). Obviously, in this second reading, *unos niños* makes reference to a set that is already present in the discourse. How can this be so? Our take on this will be that the behaviour of *unos* is not different from other indefinites which can pick a referent from a previously introduced set. Take the following example, with the numeral *tres* ‘three’.

- (76) Teachers A and B are on an excursion with [a group of children, of whom they are in charge]_K. Teacher A comes to teacher B running and says:
¿Te has enterado? [Tres niños]_{K,J} se han perdido en el bosque.
 Have you heard? Three children got lost in the forest.

In (76), the behaviour of the numeral *tres* in terms of interpretation is basically parallel to *unos* in the example (75), *i.e.* *tres niños* “three children” can be making reference to the group of children of whom teachers A and B are in charge (expressed by the subindex letter *K*), or to a different group of children (expressed by the subindex letter *J*). Thus, if a discourse set is available as is the case in this example, new quantifiers (indefinites) could associate with this domain.

So, concerning the behaviour of *unos*, we conclude that (i) *unos* is an unmarked plural indefinite with no preference in its use, (ii) in Spanish, the choice between a marked and an unmarked indefinite is responsible for the discourse effects, (iii) we think that the same applies in both the singular and the plural (*i.e.* *un* vs. *algún* and *unos* vs. *algunos*).

7 Conclusions

We summarize our main conclusions below:

- Referential vagueness is the property shared by anti-specific indefinites and signals the lack of referential intent which characterizes specificity (von Heusinger (2002), von Heusinger (2007), von Heusinger (2011)). Referential vagueness consists in the following:
 - minimal variation in possible values, and
 - uncertainty about which one the actual value is.
 - (optionally) number vagueness. Recall that we dealt with the so-called paucal reading (Martí (2015)) as an implicature of *quantity* vagueness that arises with referentially vague determiners generally (including *some or other*).
- *Algún/algunos* are referentially vague. This means that they have variation in possible values. With the plural, we have variation of plural values.
- The apparent D-linking and discourse dependence of *algunos* is not at odds with referential vagueness because the domain set can be specific, but we are still uncertain about the (subdomain of) individuals to whom we make reference from that set.
- ‘Partitivity’ is triggered by:
 - NP anaphora in cases of ellipsis (both in the singular and in the plural),
 - the topic status of *algunos NP* that creates the given-ness of the NP and the D-linking/familiarity interpretation in cases where there is no ellipsis, and
 - the plural vagueness which excludes the whole domain D of possible values as a referent for *algunos NP*.

Our analysis, by assuming that *alg-* indefinites are referentially vague in all uses, appears to be the only one that can handle and systematize the comprehensive and varied data presented in this paper.

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