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Cross-linguistic variation in the expression of ignorance: the case of Spanish and French

Éric Mathieu
University of Ottawa
emathieu@uottawa.ca

Simone Diana Zamarlik
University of Ottawa
szama093@uottawa.ca

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Abstract

This article examines the properties of epistemic indefinites (EIs) when pluralized, focusing on the following puzzle: while ignorance is expressed by both singular and plural EIs in a number of languages, e.g. German, only the singular conveys ignorance in languages such as Spanish and French. What is the nature of this parameter? We propose that, despite appearances and, in contrast with the German situation, Spanish *algunos* and French *quelques* are not lexically related to singular epistemic *algún* and *quelque*, respectively.

We show that, in these languages, singular EIs give rise to a conventional implicature – in the sense of Potts (2005) –, rather than a conversational implicature based on Gricean reasoning, as in Alonso-Ovalle & Menéndez-Benito (2011) for Spanish: the ignorance expressed in Spanish and French is inherent to singular EIs. Using evidence from the inclusive/exclusive distinction (Krifka 1989; Sauerland 2003; Farkas & de Swart 2010; Martí 2020), we provide support for the idea that, despite plural morphology, the role of *algunos* EIs and *quelques* EIs is to express paucity (adding evidence for Martí 2015 proposal for Spanish).

Keywords: ignorance, epistemic indefinites, plurality, conventional implicatures, paucity, inclusivity, exclusivity.

1. Introduction

The aim of this paper is to examine the properties of epistemic indefinites (henceforth, EIs) when pluralized.[1] EIs are indefinite existential determiners that convey information about a speaker's epistemic state (i.e., they signal lack of knowledge or ignorance about the referents they are associated with). They differ from plain indefinites in that this ignorance that they express cannot be cancelled. Compare plain indefinite *somebody* with EI *some* in (1).

(1) a. Somebody called. Guess who?
b. Some client called. #Guess who?

Unlike a plain indefinite, as in (1a), an EI does not allow for a *guess who* continuation, as this would result in a contradiction, as in (1b). The ignorance express by EIs can be referred to as the epistemic effect.

While constituting a special class of indefinites, EIs differ crosslinguistically in terms of certain properties and functions, represented by a set of parameters of variation established in the literature (see Alonso-Ovalle & Menéndez-Benito 2015): for example, their meanings can change when combined with different types of modals, negation, etc. and the ignorance that they convey can be partial or total (for a comprehensive summary of the parameters involved, see Chierchia 2013). Of particular interest within this semantic microvariation is the interaction between EIs and the phenomenon of plurality: all EIs are generally incompatible with *guess who* or *namely* continuations in their singular forms;

[1] In the literature, EIs are sometimes referred to as 'extremely non-specific indefinites' (Haspelmath 1997; Farkas 2002) or 'anti-specific indefinites' (Giannakidou & Quer 2013; Giannakidou & Yoon 2016). EIs exist in many languages: see, among others, Farkas (2003), Weir (2012), and Solt & Stevens (2018) for English; Jayez & Tovena (2002, 2005, 2006, 2011) for French; Aloni & Port (2010) and Kratzer & Shimoyama (2002, 2017) for German; Giannakidou & Quer (2013) for Greek; Zamparelli (2007) and Aloni & Port (2010) for Italian; Giannakidou & Yoon (2016) for Korean; Gianollo (2013, 2020) for Latin; Farkas (2002, 2006) and Fălăuş (2009, 2011a,b, 2012, 2014) for Romanian; and Alonso-Ovalle & Menéndez-Benito (2011, 2013b, 2015) for Spanish. In general, the literature on EIs builds upon Haspelmath's (1997) comprehensive overview of indefinite pronouns.

however, while there are EIs that retain ignorance in their plural forms, e.g. German *irgendein*, a number of EIs lose it, e.g. Spanish *algún* and French *quelque*.[2] Compare (2) with both (3) and (4).[3]

(2) German (adapted from Alonso-Ovalle & Menéndez-Benito 2011: 235)

a. Maria hat irgendeinen Arzt geheiratet, #und zwar Dr. S.
Maria has IRGENDEIN.M.ACC.SG doctor married namely Dr. S
'Maria married IRGENDEIN doctor, #namely Dr. S.'

b. Maria wohnt mit irgendwelchen Studenten zusammen, #und zwar
Maria lives with IRGENDEIN.DAT.PL students together namely
mit Peter und Hans.
with Peter and Hans
'Maria lives with IRGENDEIN students, #namely with Peter and Hans.'

(3) Spanish (adapted from Alonso-Ovalle & Menéndez-Benito 2011: 212, 213)

a. María se casó con algún medico, #en concreto con el Dr. S.
María SE married with ALGÚN.M.SG doctor namely with the Dr. S
'María married ALGÚN doctor, #namely Dr. S.'

b. María vive con algunos estudiantes, en concreto con Pedro y
María lives with ALGÚN.M.PL students namely with Pedro and
Juan.
Juan
'María lives with ALGÚN students, namely with Pedro and Juan.'

(4) French

a. Marie fréquentait quelque docteur, #à savoir Dr S.
Marie hung.out.with.IMPF.3SG QUELQUE.SG doctor namely Dr. S
'Marie hung out with QUELQUE doctor, #namely Dr. S.'

b. Marie fréquentait quelques étudiants, à savoir Jean et
Marie hung.out.with.IMPF.3SG QUELQUE.PL students namely Jean and
Paul.
Paul
'Marie hung out with QUELQUE students, namely Jean and Paul.'

Based on these observations, it seems that there are two categories of EIs with

[2] French *quelque* also has an adverbial use, as in *Jean a lu quelque trois cent livres* 'John has read some three hundred books,' but this is not the focus of this paper. On *quelque* as an epistemic indefinite, see Culioli (2000); Van de Velde (2000); Jayez & Tovena (2011, 2006); Corblin (2004); Paillard (2006).

[3] A *namely* continuation is incompatible with an EI because it contradicts the ignorance that the EI expresses about the potential referent of the nominal in which it is used; here, this potential referent is the specific doctor in (2a) and (3a), and the particular students in (2b) and (3b). It is important to note, however, that it is not a speaker simply knowing the name of a potential referent that is at issue here; it is that this continuation implies that the speaker does in fact know the specific identity of the doctor and students. Crosslinguistically, EIs are compatible with different methods of identification (see Aloni & Port 2015). Thus, it is possible for an EI that is compatible with naming to be used by a speaker if they are ignorant about the specific identity of a potential referent despite knowing their name; this, however, would not be expressed via a *namely* continuation but rather by a continuation roughly equivalent to '*some* x' (e.g., *She married some doctor, some Dr. S* or *She lives with some students, some Peter and John*) where ignorance is retained and not contradicted.

regard to how they interact with plurality (i.e., those that retain the epistemic effect in plural form and those that lose it). Thus, the research question that arises is: what is the nature of this parameter?

Our proposal is that, despite appearances, the singular and non-singular forms of EIs in languages like Spanish and French (henceforth, Spanish-type languages) do not belong to the same lexical item: *algunos* is not a pluralized version of *algún* and *quelques* is not a pluralized version of *quelque*. Our hypothesis is that these seemingly plural forms express paucity rather than plurality (see also Martí 2015): this is why the epistemic effect is absent with *algunos* and *quelques*. On the other hand, the plural forms of EIs in languages like German retain ignorance because they belong to the same lexical item as the singular forms.

Evidence comes from the inclusive/exclusive contrast shown by plurals. We show that, while bare plurals are interpreted inclusively in the appropriate contexts (questions, conditionals, etc.), plural EIs in Spanish and French are interpreted exclusively. Paucals are typically interpreted exclusively, which indicates EIs in Spanish and French share properties with the former. In recent years, inclusivity and exclusivity in the context of plurals has been a topic of growing interest in the literature (see Hoeksema 1983; Krifka 1989; Schwarzschild 1996; Sauerland et al. 2005; Farkas & de Swart 2010; Bale et al. 2011a; Grimm 2012a; Dali & Mathieu 2020; Martí 2020) and our paper contributes to this discussion.

We also introduce a number of arguments in favour of the view that singular EIs in Spanish-type languages give rise to a conventional implicature (rather than a conversational implicature based on Gricean reasoning as in Alonso-Ovalle & Menéndez-Benito 2011 for Spanish), supporting the idea that the ignorance expressed is inherent to the singular forms (e.g. as an inherent feature). Our definition of 'conventional implicature' follows that of Potts, but by adding ignorance to the set of conventional implicatures, we add to the growing number of cases of conventional implicatures that do not involve obvious expressive or emotive content (parentheticals, adverbs, diminutives, exclamatives, honorifics, etc.): epistemic *would* (Ward et al. 2003), epistemic *must* (Salmon 2011), *only* (Roberts 2006), and datives in English (Horn 2008).

This article is organized as follows: in section 2, we introduce the inclusive / exclusive distinction in relation to the interpretation of plurals. Section 3 examines the behaviour of *algunos* and *quelques* in upward- and downward-entailing environments in relation to the inclusive/exclusive distinction for plurals. Section 4 provides evidence in favour of the view that EIs in Spanish and French are paucals. Section 5 proposes that singular EIs in the former are interpreted via a conventional implicature. Section 6 concludes.

2. The inclusive/exclusive distinction

Before we introduce the evidence in favour of the idea that *algunos* and *quelques* are paucals, and thus not the plural form of singular *algunos* and singular *quelques*, we need to introduce some background information on the inclusive/exclusive distinction as it pertains to plurals; this is the aim of this section.

In certain contexts (e.g., in questions, in conditionals, under negation), bare plurals are interpreted inclusively (i.e., not only as referring to 'more than one' but also to 'one;'

see Hoeksema 1983; Krifka 1989; Schwarzschild 1996; Sauerland et al. 2005; Farkas & de Swart 2010; Bale et al. 2011a; Grimm 2012a; Martí 2020). Consider the sentences in (5).

(5) a. How many gifts did you send? ≥ 1
b. If you sent gifts, I thank you. ≥ 1
c. I didn't send gifts. ≥ 1

The question (5a) can not only be answered by 'three' but also by 'one;' the conditional in (5b) is not only true if the hearer sent two or more gifts and the speaker thanks them but also if the hearer sent only one; and the sentence in (5c) is not only false if the speaker sent two or more gifts but also if the speaker sent only one. In declarative contexts, however, bare plurals are interpreted exclusively, as in (6).

(6) I sent gifts. ≥ 2

Because the bare plural is exclusive, the sentence in (6) can only be interpreted as meaning that the speaker sent more than one gift; the sentence would be false if the speaker had sent only one. Sentences such as these are the basis of the folk view as well as of the traditional linguistic approach, according to which singulars refer to 'one,' while plurals refer to 'more than one' (Link 1983). However, since bare plurals become inclusive in conditional contexts and under negation, it has been popular in the semantic literature to propose that the inclusive/exclusive contrast is largely determined by the monotonicity of the environment in which the plural occurs. According to many accounts, exclusive readings arise via Gricean inference: the plural is semantically number-neutral and its plurality is an inference that arises via a competition with the singular; depending on the account, this plurality inference is considered to be a scalar implicature (see Spector 2007; Zweig 2009) or an anti-presupposition (see Sauerland 2003; Sauerland et al. 2005).

In contrast, Farkas & de Swart (2010) propose that the plural morpheme is polysemous between inclusive and exclusive interpretations (see also Martí 2020); this explains why in certain languages (e.g., Hungarian), morphologically singular nouns can be number-neutral. Their theory contains three ingredients: (i) an inclusive, number-neutral semantics for common count plural forms; (ii) an additional exclusive, strictly plural semantics for the same forms; and (iii) a post-compositional mechanism that chooses between (i) and (ii), namely the Strongest Meaning Hypothesis, as stated in (7) (Dalrymple et al. 1998; Winter 2001; Zwarts 2004).

(7) *The Strongest Meaning Hypothesis*
When an expression is assigned a set of interpretations ordered by entailment, choose the strongest element of this set that is compatible with the context.

Because (7) is a pragmatic principle, it can be overridden by contextual pressure, as in (8).

(8) a. Scenario: The speaker walks into their basement and notices mouse droppings on the floor.
"Arghh, we have mice!"
b. Scenario: The speaker walks into an unknown house and notices toys littering the floor.
"There are children in this house."

The utterances in (8) allow for inclusive readings: they are possible in contexts where only one mouse is in the vicinity and only one child lives in the house. An inclusive interpretation is possible, according to Farkas & de Swart, because the context involves a speaker with positive indirect evidence for the presence of, for example, mice, as in (8a), or children, as in (8b), with no way of telling how many there are. However, as pointed out by Dali & Mathieu (2021), there are cases in which an inclusive reading is possible in such contexts, even though the evidence is direct, as in (9).

(9) Scenario: The speaker has just met a professor who recently received a Nobel prize (there is a framed certificate on the wall) and is now talking to her friend.
"Biochemistry at the University of Southern North Dakota must be great, the department has Nobel prize winners."

Here, although the speaker has direct evidence of (at least) one Nobel prize winner, the use of an inclusive plural is nevertheless possible. It turns out that such inclusive readings in upward-entailing environments are not uncommon crosslinguistically.[4] Corbett (2000) introduces many examples of this kind, including the Russian equivalent of *Robbers attack collectors without even checking if they have any money* found in a newspaper headline used despite the fact that it is clear from the story that only one robber tried to rob one guard; this is called the 'sensational plural.' Consider the following example from Chapter 4 of *Alice in Wonderland* also mentioned by Corbett, who calls this the 'exaggerative plural.'

(10) 'It was much pleasanter at home,' thought Alice, 'when one wasn't always growing larger and smaller, and being ordered about by mice and rabbits.'

At this point in the story, however, Alice has come across only one mouse ('The Mouse') and only one rabbit ('The White Rabbit'), which indicates that the plurals in (10) is meant to be interpreted inclusively. Finally, in Alamblak, a Sepik Hill language of Papua New Guinea, it is possible to use the plural when the speaker is unable or unwilling to indicate the gender of an object, which yields a sentence equivalent to *She will bear children in another month* instead of the expected *She will bear a child in another month* (Corbett 2000: 240).

Finally, it is also important to note that world knowledge is another factor that can influence the appropriate use of inclusive plurals; consider the questions in (11).

(11) a. Do you have children?
b. %Do you have a child?

Because speakers know that it is as likely that an individual with children has one child as it is for them to have more than one, the use of an (inclusive) plural, as in (11a), is felicitous when asking someone whether they have any children, while the use of a singular, as in (11b), is not. On the other hand, when asking someone whether or not they have a car, the opposite is true, as in (12).

[4] It is important to note that Anand et al. (2011) show experimentally that monotonicity, though involved, is not a decisive factor in the interpretation of plural noun phrases.

(12) a. %Do you have cars?
b. Do you have a car?

In this case the use of an inclusive plural is odd, as in (12a), while the use of a singular, as in (12b), is felicitous; this is because individuals usually have one car.

In sum, we see that plurals are ambiguous between an inclusive and an exclusive interpretation and that not only monotonicity but also context and world knowledge are deciding factors in choosing between the two interpretations.

3. A puzzle

Turning now to German, Spanish, and French, we see that, as in English, plural bare nouns are necessarily referring to pluralities (i.e., atoms are excluded) in upward-entailing contexts, as in (13).

(13) a. German
Hans hat Geschenke geschickt. ≥ 2
Hans has gifts sent
'Hans has sent gifts.'
b. Spanish
Juan ha enviado regalos. ≥ 2
Juan has sent presents
'Juan has sent presents.'
c. French
Jean a envoyé des cadeaux. ≥ 2
Jean has sent DET presents
'Jean has sent presents.'

None of the sentences in (13) can be used if only one gift has been sent; in each case, John has necessarily sent two or more gifts. In questions and conditionals, on the other hand, plural bare nouns in German, Spanish, and French refer to both singularities and pluralities (i.e., are inclusive), as in (14) through (16), which indicates that these languages behave like English in this regard as well.

(14) German
a. Hat Hans Geschenke geschickt? ≥ 1
has Hans gifts.ACC sent
'Has Hans sent gifts?'
b. Wenn Hans Geschenke geschickt hat, weiß ich das zu schätzen. ≥ 1
if Hans gifts.ACC sent has know I it.ACC to appreciate
'If Hans has sent gifts, I appreciate it.'

(15) Spanish
a. ¿Ha enviado Juan regalos? ≥ 1
has sent Juan presents
'Has Juan sent presents?'
b. Si Juan ha enviado regalos, se lo agradezco. ≥ 1
if Juan has sent presents SE him thank.1SG
'If Juan has sent presents, I thank him.'

(16) French

a. Jean a-t-il envoyé des cadeaux? ≥ 1
Jean has-he sent DET presents
'Has Jean sent presents?'

b. Si Jean a envoyé des cadeaux, je le remercie. ≥ 1
if Jean has sent DET presents, I him thank
'If Jean has sent presents, I thank him.'

In each case, the questions, as in (14a), (15a), and (16a), can be answered by, for instance, 'yes, ten' or by 'yes, one' and in response to the conditionals, (14b), (15b), and (16b), it would be appropriate not only to thank John if he sent many gifts, but also if he sent only a single gift.

We also observe that plural bare nouns in German, Spanish, and French are interpreted inclusively in upward-entailing environments, such as in the scenarios previously described in (8), as in (17) through (19), just like English plural bare nouns are.

(17) German

a. Ah, wir haben Mäuse! ≥ 1
ah we have.1PL mice
'Ah, we have mice!'

b. Es gibt Kinder in diesem Haus. ≥ 1
these is children in this.DAT house
'There are children in this house.'

(18) Spanish

a. ¡Ay, tenemos ratones! ≥ 1
ah have.1PL mice
'Ah, we have mice!'

b. Hay niños en esta casa. ≥ 1
has children in this house
'There are children in this house.'

(19) French

a. Ah, nous avons des souris! ≥ 1
ah we have DET mice
'Ah, we have mice!'

b. Il y des enfants dans cette maison. ≥ 1
it there DET children in this house
'There are children in this house.'

In summary, German, Spanish, and French plural bare nouns all share the properties of referring to pluralities as well as atoms in the appropriate contexts. They can be interpreted inclusively.

However, we observe that in Spanish and French, nominals with *algunos* and *quelques*, respectively, behave differently from plural bare nouns with regard to the inclusive/exclusive contrast. Consider (20) and (21).

(20) Spanish

a. ¿Ha enviado Juan algunos regalos? ≥ 2
has sent Juan ALGÚN.M.PL presents
'Has Juan sent ALGÚN presents?'

b. Si Juan ha enviado algunos regalos, se lo agradezco. ≥ 2
if Juan has sent ALGÚN.M.PL presents SE him thank.1SG
'If Juan has sent ALGÚN presents, I thank him.'

(21) French

a. Jean a-t-il envoyé quelques cadeaux? ≥ 2
Jean has-he sent QUELQUE.PL presents
'Has Jean sent QUELQUE presents?'

b. Si Jean a envoyé quelques cadeaux, je le remercie. ≥ 2
if Jean has sent QUELQUE.PL presents I him thank
'If Jean has sent QUELQUE presents, I thank him.'

The question containing *algunos* in (20a) can only be interpreted as referring to two or more entities, so an answer such as 'one' is not possible; the same applies to the question containing *quelques* in (21a). Similarly, in response to the conditionals containing *algunos* and *quelques* in (20b) and (21b), respectively, it would be appropriate to thank John if he sent two or more gifts, but not if he sent a single gift.

Here, it is important to mention that in the singular versions of the questions and conditionals in (20) and (21), *algún* and *quelque* appear to gain an NPI-like flavour (see also Fălăuş 2015 for *vreun*), similar to a free choice effect, as in (22) and (23); this is because these are question and downward-entailing environments.

(22) Spanish

a. ¿Ha enviado Juan algún regalo?
has sent Juan ALGÚN.M.SG present
'Has Juan sent ALGÚN present?'

b. Si Juan ha enviado algún regalo, le agaradezco.
if Juan has sent ALGÚN.M.SG present him thank
'If Juan has sent ALGÚN present, I thank him.'

(23) French

a. Jean a-t-il envoyé quelque cadeau?
Jean has-he sent QUELQUE.SG present
'Has Jean sent QUELQUE present?'

b. Si Jean a envoyé quelque cadeau, je le remercie.
if Jean has sent QUELQUE.SG present I him thank
'If Jean has sent QUELQUE present, I thank him.'

We mention this at this stage, as it might be argued that plural EIs in Spanish and French are in fact the plural versions of NPIs. However, the cases featuring upward-entailing environments that this cannot be the case. In upward-entailing environments, *algunos* and *quelques* do not yield an inclusive reading, as in (24) and (25), respectively.

(24) Spanish

a. ¡Ay, tenemos algunos ratones! ≥ 2
ah have.1PL ALGÚN.M.PL mice
'Ah, we have ALGÚN mice!'[5]

b. Hay algunos niños en esta casa. ≥ 2
has ALGÚN.M.PL children in this house
'There are ALGÚN children in this house.'

(25) French

a. Ah, nous avons quelques souris! ≥ 2
ah we have QUELQUE.PL mice
'Ah, we have QUELQUE mice!'

b. Il y a quelques enfants dans cette maison. ≥ 2
it there has QUELQUE.PL children in this house
'There are QUELQUE children in this house.'

Here, *algunos* and *quelques* can only be interpreted exclusively. The fact that singular *algún* or *quelque* can be interpreted as an NPI militates for the idea that they are not related to their pluralized form. The take-home point is that *algunos* is neither the plural form of singular NPI-like *algún* nor epistemic *algún* and *quelques* is neither the plural form of NPI-like *quelque* nor epistemic *quelque*. That certain plurals expected to be inclusive turn out to be solely exclusive is not uncommon crosslinguistically: recent research has shown, for example, that not all plurals in Arabic are inclusive in the appropriate/expected contexts (Dali 2020; Dali & Mathieu 2021); the same can be said about *-tul* in Korean (Barrie & Mathieu 2023) and plural bare nouns in Western Armenian (Bale et al. 2011a,b). Often, these plurals turn out to be paucals. We return to this in Section 4.

Before this section come to a close, let us review the cases of German . In contrast to the behaviour of *algunos* and *quelques*, we observe that in German, the domain of quantification of plural *irgendein* contains both sums and atoms (i.e., they are interpreted inclusively), as in (26).

(26) German

a. Hat Hans irgendwelche Geschenke geschickt? ≥ 1
has Hans IRGENDEIN.ACC.PL gifts.ACC sent
'Has Hans sent IRGENDEIN gifts?'

b. Wenn Hans irgendwelche Geschenke geschickt hat, weiß ich
if Hans IRGENDEIN.ACC.PL gifts.ACC sent has know I
das zu schätzen. ≥ 1
it.ACC to appreciate
'If Hans has sent IRGENDEIN gifts, I appreciate it.'

Because nominals containing plurals *irgendein* are inclusive, the questions in (26a) can be answered by, for example, 'ten,' but also by 'one'; in the case of the conditionals in (26b), it would be appropriate to thank John if he sent ten gifts but also if he sent a single gift. Note that, in each case, the pluralized EI gains the aforementioned NPI-like

[5] In order to use *algunos*, our consultant noted there would have to a lot of droppings indicating that there are likely multiple mice.

flavour; again, this is because the contexts are questions and conditionals (i.e., traditionally downward-entailing).

Now turning to upward-entailing environments, we see another clear contrast between German-type languages on the one hand and Spanish-type languages on the other: plural *irgendein* yields an inclusive reading in a scenario like the one previously described in (8), as in (27).

(27) German

a. Ah, wir haben irgendwelche Mäuse! ≥ 1
ah we have.1PL IRGENDEIN.ACC.PL mice
'Ah, we have IRGENDEIN mice!'

b. Es gibt irgenwelche Kinder in diesem Haus. ≥ 1
there is IRGENDEIN.ACC.PL children in this.DAT house
'There are IRGENDEIN children in this house.'

Because the construction in (27) involves an upward-entailing context, the NPI-like effect of EIs that appears to be triggered in downward-entailing contexts is bypassed and the interpretation of *irgendein* is simply that of ignorance.

To summarize: Spanish *algunos* and French *quelques* are not interpreted like their German counterparts. The former are interpreted exclusively while the latter are interpreted inclusively. Table 1 summarizes our findings thus far.

Table 1. Crosslinguistic interpretation of non-singular EIs

	IRGENDEIN.PL	ALGUNOS	QUELQUES
INCLUSIVE	yes	no	no
EXCLUSIVE	no	yes	yes
IGNORANCE	yes	no	no

Given these facts, the question that arises is: why is this the state of affairs? The answer to this question is connected to the fact that *algunos* and *quelques* turn out to be paucals, which we discuss in section 4.

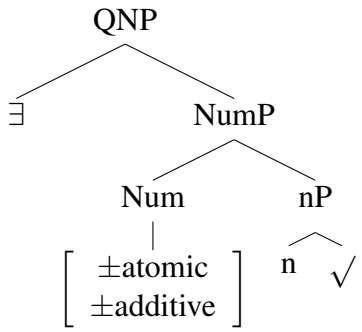
4. Proposal: *Algunos* and *quelques* as paucals

We propose that *algunos* and *quelques* do not convey ignorance because they are not derived from *algún* and *quelque*, respectively: in other words, neither *algún* and *algunos* nor *quelque* and *quelques* belong to the same lexical item. The epistemic effect, then, is uniquely associated with *algún* and *quelque* and is impossible with *algunos* and *quelques*. It is not uncommon to find plurals without a singular in the grammar (e.g., *scissors*; see Acquaviva 2008) and there are many singulars without a plural (e.g., *cattle*). The idea is that EIs are no different: some have a plural, some do not. For instance, Romanian *vreun* does not have a plural and Italian *qualche* lacks one too (Chierchia 2013). On the other hand, true plural versions of German *irgendein* are available.

Our account of the contrast between EIs, specifically those that bear plural morphology, in Spanish-type versus German-type languages is based on a few crucial assumptions. Following Harbour's (2011, 2014) featural theory (see also Noyer 1992; Nevins

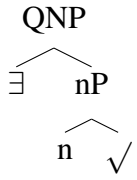
2011), we assume that singulars are [+atomic, –additive], that plurals are [–atomic, +additive], and that paucals are [–atomic, –additive]; in (28), we give the basic structure of a quantified noun phrase.[6]

(28)



Moreover, following Martí (2020), we assume that inclusive plurals have a reduced structure in certain contexts, such as in questions, conditionals, as well as under negation (see also Pereltsvaig 2014), as in (29).

(29)



In this case, all we have semantically is the semi-lattice and both sums and atoms are available (i.e., inclusive plurals end up with the same minimal structure as general number). However, as should be clear from the discussion above, not all plurals are necessarily inclusive; some plurals are (uniquely) exclusive. In this case, only the structure in (28) is assumed.

With these assumptions in mind, we propose that singular *irgendein* is in complementary distribution with plural *irgendein* under Num in the structure shown in (28).[7] Singular *irgendein*, then, is [+atomic, –additive], while its plural counterpart is [–atomic, +additive]; the fact that the singular and plural form of *irgendein* have complementary features also indicates that these forms are lexically related.[8] When interpreted inclusively, plural *irgendein* has the simpler structure shown in (29). In terms of *algún* and *quelque*, we propose that they carry the epistemic effect via lexical representation and that their seemingly plural forms are not related to the singular, which explains why this ignorance is not conveyed by *algunos* and *quelques*. The question that now arises is: what is the function and meaning of the plural morphology on *algún* and *quelque*?

We propose that its function is that of a paucal with the features [–atomic, –additive] rather than that of a plural (despite the plural morphology). Its meaning, then, is "to refer to a small number of distinct real world entities. It is similar to the English

[6] We do not use the feature [±minimal], since the dual is not relevant to the present discussion. Also, note that we borrow only some aspects of Harbour's (2011; 2014) proposal: on his view, the plural in Num is exclusive and in the context of inclusive plurals, a choice function operates on the set of non-atoms provided by NumP, which accesses the atoms that constitute them and makes them available for interpretation.

[7] Following standard assumptions (see among many others Borer 2005; Harbour 2011, 2014), the singular is in complementary distribution with the plural.

[8] Note that the features in question are semantic features; we do not attempt a morphological decomposition as that in Martí 2015 nor an analysis of the syntactic/agreement features that are activated.

quantifier *a few* in meaning, particularly in that there is no upper bound that can be put on its use." (Corbett 2000: 22).[9] Since paucals typically do not contain atoms, we now understand why *algunos* and *quelques* cannot be used inclusively (unlike bare plurals).[10]

In order to illustrate why we posit that EIs like *algunos* and *quelques* in Spanish-type languages are paucal, consider the sentences in (30) along with following three scenarios: (i) Anna saw one rabbit or one student; (ii) Anna saw several rabbits or several students (more than one, less than a large quantity); and (iii) Anna saw many rabbits or many students.

(30) a. Spanish
Ana vio algunos conejos en su paseo.
Ana saw ALGÚN.M.PL rabbits on her walk
'Ana saw ALGÚN rabbits on her walk.'
✗ Scenario 1: Ana saw one rabbit on her walk.
✓ Scenario 2: Ana saw several rabbits on her walk (more than one, less than a large quantity).
✗ Scenario 3: Ana saw many rabbits.

b. French
Anne a rencontré quelques étudiants.
Anne has met QUELQUE.PL students
'Anne met QUELQUE students.'
✗ Scenario 1: Anne met one student.
✓ Scenario 2: Anne met several students (more than one, less than a large quantity).
✗ Scenario 3: Anne met many students.

The sentence containing *algunos conejos* 'ALGÚN.M.PL rabbits' in (30a) is only acceptable with the second scenario, namely a paucal context, in which Ana has seen several (i.e., more than one, but less than a large quantity) rabbits on her walk; the same applies to the sentence containing *quelques étudiants* 'QUELQUE.PL students' in (30b). Here, it is important to compare the use of *algunos* with that of *unos* in Spanish: we observe that while the former denotes a small amount, the latter has no limit; the same observation applies to the contrast between French 'quelques' and 'des.'[11]

On the other hand, plural EIs like *irgendein* in German are not interpreted as paucals; consider the sentences in (31) in the same scenario described for (30).

[9] Much research has appeared on the paucal in recent years (see Corbett 2000; Harbour 2011, 2014).

[10] Since the original notion of the paucal in number-related morphology is that of a modifier of properties (i.e., a function from denotations of join semilattices to denotations of a section of the join semilattice comprised of non-atomic sums up to a certain cardinality threshold), paucals should start their lives as modifiers; we thank an anonymous reviewer for this clarification.

[11] There appear to be some contexts in which *algunos* nominals are interpreted differently: (i) in preverbal/topic positions where they are interpreted as familiar or discourse-linked and (ii) in postverbal positions where they are sometimes interpreted to mean the same as *unos* (see Etxeberria & Giannakidou 2017); it remains to be established whether or not these contexts can be assimilated with the cases at hand.

(31) German
Hans hat auf seinem Spaziergang irgendwelche Hasen gesehen.
Hans has on his walk IRGENDEIN.ACC.PL rabbits seen
'Hans saw IRGENDEIN rabbits on his walk (he saw two or more rabbits, no real upper limit).'

Since *irgendein* is in fact plural rather than paucal when it bears plural morphology (31) can refer to a few, several, or even many rabbits.

Martí (2015) also makes a case for the idea that *algunos* is interpreted as a paucal; however, she proposes that both *algún* and *algunos* are paucals, the latter being a greater paucal, as in (32).[12]

(32) Spanish (Martí 2015: 576)
a. Hay alguna mosca en la sopa.
there.is ALGÚN.F.SG fly in the soup
'There is one fly (or a very small number of flies) in my soup.'
b. Hay algunas moscas en la sopa.
there.are ALGÚN.F.PL flies in the soup
'There are several flies in my soup.'

Here, *algún* is interpreted as 'a very small number of,' as in (32a), while *algunos* is interpreted as 'a small number of,' as in (32b). In her analysis, Martí (2007) also makes use of Harbour's system, in which it is possible to repeat a feature in Num via the Feature Recursion Parameter, which yields [–additive(+additive))] for a language with two approximate numbers where the threshold is low for both;[13] thus, *algún* in (32a) denotes a lower paucal, while *algunos* in (32b) denotes a greater paucal. In French, however, the paucal interpretation does not appear to be possible with *quelque*, as in (33).[14]

(33) French
Il s'agissait de faire quelque opération délicate.
it meant.REFL to do QUELQUE.SG operation delicate
(i) 'It meant doing QUELQUE delicate operation.'
(ii) #'It meant doing a very small number of delicate operations.'

For the time being, however, we can say that since *algún* appears to have a possible paucal interpretation, *algún* and *algunos* are related in terms of paucity (but importantly not in terms of the epistemic effect) and the former is therefore polysemous; on the other hand, *quelques* is not at all related to *quelque*.

We know independently from languages such as Arabic that paucals are unlike plurals in being (only) exclusive (see also Dalrymple and Mofu 2013 who show that in Biak, an Austronesian language, paucals unlike plurals exclude inclusive readings). Dali & Mathieu (2021) show that the plural of the singulative in Arabic is interpreted

[12] It has also been argued that *algunos* is both discourse-linked and partitive (Martí 2007, 2009; Gutiérrez-Rexach 2008, 2010).

[13] Note that languages with paucals vary as to the actual number or amount that counts as paucal based on various factors, such as social convention.

[14] This fact presents a further issue for Alonso-Ovalle & Menéndez-Benito's (2011) proposal for *algunos* in terms of its potential to be applied crosslinguistically, namely in the cases of non-singular forms of EIs in other languages that also appear to lose the epistemic effect.

exclusively, and contrasts semantically with the collective noun in that, for example, it is interpreted as a paucal (in all contexts). Exclusivity and paucity are pervasive features of Arabic grammar. They turn up again in the interesting case of contrasting plurals Dali (2020). Arabic is interesting because it shows that a single morpheme *–at* can have multiple semantic realizations (plurality or paucity). Dali (2020) argues that this is a case of allosemy (Wood 2012; Marantz 2013)(allomorphy in Distributed Morphology is where a single abstract morpheme can have multiple phonological realizations).[15] Dali (2020) gives (34) as an explanation for the different meanings of *–at*, i.e. [+FEM,+PL].

(34) LF instructions: semantic realizations of [+FEM,+PL] (Dali 2020, p. 221)

a. [+FEM,+PL] ↔ "classifying plural"/_____ $n_{[+FEM]}$

b. [+FEM,+PL] ↔ "paucal"/_____ [$_{Num}$-*a*]

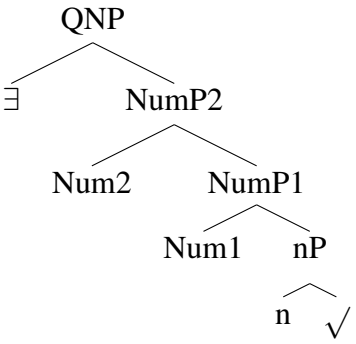
Instead of analyzing the plural morpheme as polysemous, Dali (2020) assumes an allosemic effect, where each meaning is determined by a specific syntactic context. This is interesting because, by not approaching the variable meaning of the plural as a matter of polysemy, we do not, as Dali (2020) points out, have to rely on random associations between a certain feature and the multiple meanings associated to it, thus overlooking a crucial generalization regarding the role of the local syntactic context in assigning an interpretation to abstract morphemes.

Dali (2020) shows that, another example of allosemy within the DP comes from the interpretation of the suffix *-ri* in Dagaare (Grimm 2012b), which taken in isolation, does not have a fixed semantic denotation. The latter is determined by the nature of the base to which the suffix is attached. Depending on the input noun (collective or non-collective), the morpheme is interpreted as singular or plural.

We propose that the plural in Spanish and French can receive a similar analysis. In the right syntactic context, semantic realizations of [+PL] can be plural or paucal. The case at hand is very contextually dependent, but it clearly patterns with other similar examples from other languages. It is not, therefore, not a random phenomenon.

Focusing back on our analysis, we propose that singular *irgendein* is in complimentary distribution with its plural counterpart under Num, whereas *algún* and *quelque* are not in complementary distribution with *algunos* and *quelques*, respectively. Their structure, as shown in (35), involve two Num projections: NumP1 and NumP2.

(35)



Specifically, we propose that *algún* and *quelque* are generated in a lower Num projection

[15] While Marantz (2013) focuses on root allosemy (the choice of particular meanings for a root in a particular context), he also mentions the possibility for functional heads to be allosemic (see Wood 2012; Marantz 2013; Wood & Marantz 2017).

(i.e., NumP1), while *algunos* and *quelques* are generated in a higher Num projection (i.e., NumP2). Our proposal for number projections is not unique: exclusive plurals and paucals have been argued to be hosted in NumP2 (see Dali & Mathieu 2021) and two number projections have been posited for Japanese (Watanabe 2010) and Purépecha (Vázquez Rojas Maldonado 2012).[16]

Our account differs from that of Alonso-Ovalle & Menéndez-Benito (2011). Alonso-Ovalle & Menéndez-Benito (2011) aim to account for the contrast between *algún* and *algunos*: specifically, that the ignorance carried by the first appears to be lost in the latter.[17] Based on the assumption that *algunos* is simply the plural counterpart of *algún*, they argue that this contrast is triggered by the interaction of the antisingleton constraint and plurality.

In earlier work, Alonso-Ovalle & Menéndez-Benito (2010) build on Kratzer & Shimoyama's (2002; 2017) analysis of *irgendein* and posit that *algún* imposes an antisingleton constraint: although *irgendein* and *algún* are similar in terms of their connection with modality, *irgendein* triggers a free choice effect, as in (36a), while the effect triggered by *algún* is a weaker one, as in (36b) (i.e., *irgendein* is a maximal domain widener and *algún* is not).

(36) Scenario (adapted from Alonso-Ovalle & Menéndez-Benito 2010: 9): The Department of Linguistics is hiring a new professor. Several candidates have applied and the department must hire one of them; however, some of these candidates do not have a doctoral degree and, according to University policies, only candidates with a doctoral degree can be hired.

a. German
*Das Institut muss irgendeinen Kandidaten einstellen.
the department must IRGENDEIN.M.ACC.SG candidate hire
'The department has to hire IRGENDEIN candidate.'

b. Spanish
El departamento tiene que contratar a algún candidato.
the department has to hire ALGÚN.M.SG candidate
'The department has to hire ALGÚN candidate.'

The reason why *irgendein*, as in (36a), is infelicitous in this context is precisely because it conveys free choice under a deontic modal and is therefore incompatible with the fact that some of the candidates who have applied for the position do not have a doctoral degree and cannot be hired by the department. On the other hand, *algún*, as in (36b), does not do so and can therefore be used even if some of the applicants are not possibilities in this scenario.

This, as well as the observation that *irgendein* allows for an alternate specific unknown reading, while *algún* does not, leads Alonso-Ovalle & Menéndez-Benito to claim

[16] It is important to note that this is just one possible implementation of the contrast between proper plurals and paucals; the basic empirical arguments in this article do not depend on this particular structural analysis and there may be other theoretical implementations. What is most relevant here is that in Spanish-type languages, the singular EI is not lexically related to the non-singular EI; thus, they are not in complimentary distribution.

[17] This happens not only with *algún* but also with Italian *alcuno*, Catalan *algun*, European Portuguese *algum*, and Latin *aliquis* (Gianollo 2020).

that the latter triggers a modal variation effect, which means that its domain cannot be a singleton set (i.e., it must contain at least two epistemic possibilities) and posit the antisingleton constraint.[18] They also observe that *algún* triggers this modal variation effect in both (epistemic and deontic) modal and non-modal contexts, while *irgendein* triggers the aforementioned free choice effect only in (deontic) modal contexts; in order to capture this contrast, they assume that assertions are implicitly modalized even when no overt modal is present.

Following Kratzer & Shimoyama (2002, 2017), Alonso-Ovalle & Menéndez-Benito also assume that, like the free choice effect triggered by *irgendein*, the modal variation effect triggered by *algún* is derived via a pragmatic reasoning (i.e., a conversational implicature): the use of a antisingleton indefinite like *algún* triggers a competition between the propositions that it can express, where its domain contains at least two epistemic possibilities in each case (i.e., is a non-singleton set), and alternative ones that would follow from the restriction of the domain to a singleton set; the hearer will conclude that the speaker did not utter any of the alternative propositions because they are false, which in turn results in a modal variation effect.

Alonso-Ovalle & Menéndez-Benito claim that this competition between propositions does not occur in the case of *algunos*; the lack of this competition is then the reason why the use of *algunos* does not trigger a modal variation effect like the use of *algún* does. This proposal is based on three important assumptions, which we will illustrate using the sentence in (37).

(37) Scenario: Two individuals are talking about what their friend Pedro had done that day; for the purposes of this explanation, we will assume that the world of evaluation contains only three colleagues, namely Felipe, Ines, and Rosa.

Spanish
Pedro ha almorzado con algunos compañeros.
Pedro had lunched with ALGÚN.M.PL colleagues
'Pedro had lunch with ALGÚN colleagues.'

First, singular noun phrases consist of a number-neutral noun stem and a number feature, namely [singular]; thus, the denotation for the noun stem (i.e., $\sqrt{\text{COLLEAGUE}}$) is as shown in (38) and that of the singular noun phrase (i.e., *colleague*) is as shown in (39).

(38) $$\sqrt{\text{COLLEAGUE}}^{w} = \left\{ \begin{array}{c} \text{FelipeInesRosa} \\ \text{FelipeInes, FelipeRosa, InesRosa} \\ \text{Felipe, Ines, Rosa} \end{array} \right\}$$

(39) $$\text{singular}(\sqrt{\text{COLLEAGUE}}^{w}) = \text{colleague}^{w} = \{\text{Felipe, Ines, Rosa}\}$$

When combined with the number feature, the extension of the number-neutral noun stem that contains both sums and atoms, as in (38), is limited to only atoms, as in (39). Second, like noun stems, plural noun phrases are number-neutral, as in (40).

[18] As opposed to the narrow scope reading in which any one of the candidates is an epistemic possibility for the speaker, the specific unknown reading is the wide scope reading in which there is a particular candidate that the department must hire and the speaker simply does not know who this particular candidate is.

$$(40) \qquad [\text{colleagues}]^{w}_{\text{NP}} = \left\{ \begin{array}{c} \text{FelipeInesRosa} \\ \text{FelipeInes, FelipeRosa, InesRosa} \\ \text{Felipe, Ines, Rosa} \end{array} \right\}$$

Thus, the extension of the plural noun phrase *colleagues* in (40) contains pluralities as well as singularities, exactly like the extension of the noun stem in (38). Third, following Martí (2008), Alonso-Ovalle & Menéndez-Benito assume that *algunos* imposes a plurality requirement as a determiner, which means that there must be at least one plural element in the domain of epistemic possibilities.

A plural noun phrase with *algunos* is then, as Alonso-Ovalle & Menéndez-Benito assume for plural noun phrases in general, number-neutral. Therefore, its domain contains both sums and atoms; specifically, it is a set of subdomains made up of sums, of atoms, or of sums and atoms. The antisingleton constraint, however, requires this domain to be a non-singleton set; this restriction only allows for the following types of subdomains: (i) those that contain only atoms, (ii) those that contain both sums and atoms, and (iii) those that contain only sums. Alonso-Ovalle & Menéndez-Benito claim that the subdomains with only atoms are excluded because these violate the plurality requirement of *algunos* and that only the sums that the subdomains with both sums and atoms contain are considered, as this type of subdomain yields the same propositions as the subdomains with only sums do; any subdomains that contain a single sum are also excluded due to the antisingleton constraint.

Contrary to what occurs with *algún*, the alternative propositions that would result from the domain being restricted to a singleton set are not competitors in the case of *algunos*: the singleton subdomains that contain single atoms give rise to a contradiction, while those that contain single sums are equivalent to subdomains that contain a particular sum plus at least one atom. In other words, due to contradiction, the hearer will not consider the atomic singleton subdomains as alternatives and, because the propositions yielded by the summative singleton subdomains are equivalent to those yielded by the non-singleton subdomains, the hearer will not consider these as alternatives either. This means that there is no competition between the propositions that *algunos* can express and any alternative propositions; thus, no modal variation effect arises.

In summary, Alonso-Ovalle & Menéndez-Benito's account of the contrast between *algún* and *algunos* is based on their previous proposal that the antisingleton constraint is what generates the modal variation effect: in the case of *algún*, it arises because a competition with alternative propositions is possible; in the case of *algunos*, however, the interaction of the antisingleton constraint with plurality together with the fact that this competition with alternative propositions is not possible due to the number-neutrality of the plural noun phrase block the modal variation effect.

One advantage that our account has over that of Alonso-Ovalle & Menéndez-Benito (2011) is that we make a correlation between exclusivity and paucity in the context of Spanish *algún* and *algunos*. On our view, *algunos* is not lexically related to singular *algún*, which means that the loss of ignorance in the plural in Spanish (and French) is not pragmatically motivated (in other words, singular *algún* and singular *quelque* are associated with an ignorance feature where their plural counterparts do not). One consequence of our proposal is that the ignorance effect associated with singular EIs in Spanish and French must be derived via a conventional implicature rather than a conversational one. A conventional implicature is an implicature that is part of a lexical item's or expression's

agreed meaning, rather than derived from principles of language use. In section 5, we show that the epistemic effect should in fact be analyzed as a conventional implicature instead of a conversational one. Following Potts (2005), we assume that conventional implicatures arise from a particular choice of words or syntax and that they are fully semantic, not pragmatic (i.e., that they are a species of entailment on a separate dimension, independent of 'at-issue' meaning).

This closes section 4, in which we gave an explanation as to why plural EIs in German-type are associated with ignorance, whereas non-singular EIs in Spanish and French are not: in the former, plural EIs are actual plural counterparts of singulars EIs, while in the latter, despite plural morphology, these EIs are separate lexical items and are not, therefore, plural counterparts of singulars EIs: they are in fact paucal.

5. Ignorance and conventional implicatures

One of the defining features of a conversational implicature is that its contribution to the meaning of an utterance is not truth-conditional (Birner 2013); if the implicature does not in fact hold, the truth of the particular utterance is unaffected. Conversational implicatures are also context-dependent: the same form may give rise to different implicatures in varying contexts. For instance, imagine a situation in which someone is out of petrol; even if, in an effort to be helpful, a speaker utters the sentence in (41), which in this context carries the implicature that the garage around the corner is open and has petrol to sell, this implicature can be easily cancelled via a cancellation clause (i.e., *but it's closed*).

(41) There is a garage around the corner, (but it's closed).

Here, if the speaker adds this amendment to the sentence, effectively leading to the cancellation of the conversational implicature carried by *there is a garage around the corner*, the acceptability of the sentence is unaffected; this is precisely because this implicature is not lexically encoded.

Conventional implicatures are like conversational implicatures in that they are not truth-conditional; in fact, all implicatures share this feature, whether conventional or conversational. They differ from conversational implicatures in that they are context-*in*dependent (Grice 1975; Potts 2005); this is because particular conventional implicatures are attached to certain linguistic expressions and, since they are triggered by the meanings of these expressions (i.e., they are lexically-encoded implicatures), these implicatures remain unchanged from context to context. Consider the traditional cases in (42), in which the words *therefore*, *and*, *because*, and *but* each yield a different effect (from Zufferey et al. 2019: 90).

(42) a. He is an Englishman; he is, *therefore*, brave.
b. He is an Englishman *and* he is brave.
c. He is brave *because* he is an Englishman.
d. He is an Englishman, *but* he is brave.

The use of the italicized word in each of the sentences in (42) gives rise to a different implicature: *therefore*, as in (42a), signals that the fact that *he* is brave follows from him being an Englishman (i.e., *p* therefore *q* +> *q* follows from *p*); *and*, as in (42b), simply conveys that *he* is both an Englishman and brave; *because*, as in (42c), signals that the

reason that *he* is brave is due to the fact that he is an Englishman (i.e., p because q +> p follows from q); and *but*, as in (42d), signals that the fact that *he* is an Englishman contrasts with him being brave (i.e., p but q +> p contrasts with q). If uttered, each sentence in (42) technically informs a hearer that *he* is a brave Englishman; each, however, carries an different implicature as to the relationship between these two characteristics. Because these implicatures are triggered by the use of a particular word instead of the context, the sentence in (43) is self-contradictory and paradoxical.

(43) He is an Englishman, but he is brave (#and all Englishmen are brave).

Here, it is clear that, contrary to the conversational implicature that arises in (41), the conventional implicature triggered by the use of *but* in (43) is not cancellable.[19]

It must be noted that, over the years the term 'conventional implicature' has been used in various ways by different authors (Amaral et al. 2007) and much confusion has ensued. For the purposes of our analysis, we follow Potts (2005), who disagrees with the characterization of many classic examples of conventional implicatures and whose proposal provides a much more restrictive account of what they are. On Potts's influential view, conventional implicatures are parentheticals, adverbs, diminutives, exclamatives, honorifics, etc. In this article, we posit another type of conventional implicature: the ignorance exhibited by EIs. By doing so, we add to the growing number of cases of conventional implicatures that do not involve obvious expressive or emotive content, which include epistemic *would* (Ward et al. 2003), epistemic *must* (Salmon 2011), *only* (Roberts 2006), and datives in English (Horn 2008).

The claims made by Potts (2005) are based on the assumption that propositions can express at-issue or not-at-issue content: at-issue content is the main point of a sentence or its primary contribution that "comments upon an asserted core" (Potts 2005: 57), while not-at-issue content is secondary information (i.e., not the main point of a sentence); it is not-at-issue content that can be a presupposition or a conventional implicature. For instance, evidentials are generally said to contribute not-at-issue content distinct from that expressed by the main clause of a declarative sentence (Izvorkski 1997; Faller 2002, 2006; Matthewson et al. 2007; Murray 2010, 2014, 2017); because of this, an evidential is either a presupposition or a conventional implicature depending on its type and/or the language.

There are a number of properties associated with conventional implicatures: they (i) are triggered by a linguistic expression, a word, or construction and its conventional meaning (i.e., they are not context-dependent but rather grammatically-encoded commitments, thus amenable to a syntactic-semantic treatment), (ii) are non-cancellable (i.e., conventional implicatures are commitments that give rise to entailment, though separate from the 'at-issue' entailment of the sentence, as described in Partee 2009), (iii) are non-detachable, (iv) are not reinforceable, (v) are speaker-oriented[20] (i.e., information is often peripheral and not under discussion), and (vi) survive under negation, in *if*-clauses, etc. Conversational implicatures, on the other hand, (i) are non-conventional and therefore not carried by the linguistic expression itself, (ii) are cancellable without contradiction, (iii)

[19] Here, we do not use *in fact* because, as pointed out by Sauerland (2004), continuations of this kind are corrections rather than cancellations; this is indicated by the possibility of inserting *no* before *in fact*.

[20] This is the main difference between Potts's account and 'classic' conventional implicature; many of the latter do not meet this condition (Partee 2009).

are detachable, (iv) are reinforceable without redundancy, (v) are not necessarily speaker-oriented, and (vi) do not survive under negation, in *if*-clauses, etc.

Based on these characteristics of conventional versus conversational implicature, the ignorance carried by EIs appears to be a conventional implicature, as opposed to a conversational one, despite the fact that this is what it has been treated as in the literature thus far (at least for the most part, but see Jayez & Tovena 2011 for *quelque*).[21] We propose that the meaning of *algún* and *quelque* is divided into two parts, as in (44): the at-issue content, which constitutes the main point of the proposition, and a conventional implicature (or the not-at-issue content), which expresses the epistemic effect.

(44) a. Spanish
Juan ha encontrado algún estudiante.
Juan had.3SG met ALGÚN.M.SG student
'Juan met ALGÚN student.'
(i) At-issue content: Juan met x (x = a student).
(ii) Not-at-issue content or conventional implicature: x is unidentified.

b. French
Jean a rencontré quelque étudiant.
Jean had.3SG met QUELQUE.SG student
'Jean met QUELQUE student.'
(i) At-issue content: Jean met x (x = a student).
(ii) Not-at-issue content or conventional implicature: x is unidentified.

Evidence in favour of our proposal is that, as pointed out above, ignorance is carried only by *algún* and *quelque* and not by *algunos* and *quelques*. This is an indication that the epistemic effect is triggered by the lexical items themselves, namely *algún* and *quelque*; because of this, it cannot be calculated based on the (literal) meaning of the utterance as a whole, the maxims of conversation, or the context of utterance. This is also precisely why the epistemic effect cannot be cancelled. This is supported by the fact that, as mentioned in section 1, the addition of a *guess who* or *namely* continuation to an utterance with *some*, as shown in (1), as well as *algún* or *quelque*, as in (46), gives rise to a contradiction (see also Fălăuş 2009; Aloni & Port 2010); this is illustrated by the contrast between the plain indefinites *alguien* and *quelqu'un*, as in (45), and EIs *algún* or *quelque*, as in (46).

(45) a. Spanish
He visto a alguien entrar al edificio. ¿Adivina quién?
had.1SG seen A someone enter.INF in.the building guess.IMP.2SG who
'I saw somebody enter the building. Guess who?'

b. French
J'ai vu quelqu'un entrer dans l'immeuble. Devine qui?
I.had.1SG seen someone enter.INF in the.building guess.IMP.2SG who
'I saw somebody enter the building. Guess who?'

[21] As pointed out by a reviewer, the conversational implicature view versus the conventional implicature standpoint are not the only two options. There are alternative-based theories that do not take epistemic effect to be a pragmatic effect, meaning it is not the run-of-the mill conversational implicature. This is the case in Chierchia (2013) where the computation of alternatives is a lexicalized/grammaticalized process. It would be interesting to study the facts we introduce in this paper under the Chierchia approach. Note that it would have one major feature in common with our proposal, namely that the contrast between Spanish *algún* and German *irgendein* with regard to ignorance is lexically-based.

(46) a. Spanish
He visto a algún hombre entrar al edificio.
had.1SG seen A ALGÚN.M.SG man(M) enter.INF in.the building
#¿Adivina quién?
guess.IMP.2SG who
'I saw ALGÚN man enter the building. #Guess who?'

b. French
J'ai vu quelque homme entrer dans l'immeuble. #Devine
I.had.1SG seen QUELQUE.SG man enter.INF in the.building guess
qui?
who
'I saw QUELQUE man enter the building. #Guess who?'

While a *guess who* continuation is completely acceptable with the plain indefinites in (45), it results in a contradiction with an EI, as in (46); this is problematic for pragmatic accounts, such as the one proposed by Alonso-Ovalle & Menéndez-Benito (2010, 2011), in which no explanation is given as to why this test fails. Here, it must be noted that the cancellability test has traditionally been considered the most reliable and effective criterion for distinguishing conversational implicatures from other linguistic phenomena, such as conventional implicature, semantic entailment, and semantic presupposition.[22] In the same vein, adding a *namely* continuation to an utterance with *some*, as in (47), as well as *algún* or *quelque* also gives rise to a contradiction; for examples of the incompatibility of a *namely* continuation with *algún* and *quelque*, please refer back to (3a) and (4a), respectively.

(47) a. I saw somebody enter the building, (namely my friend John).
b. I saw some man enter the building, (#namely my friend John).

Again, as is the case with a *guess who* continuation, a *namely* continuation is acceptable with a plain indefinite, as in (47a), but results in a contradiction with an EI, as in (47b). Lastly, as a hearer, it is also infelicitous to ask a question like *who* or *what* in response to a speaker who has used *some*, as shown in (48), as well as *algún* or *quelque* in their utterance, as illustrated by the contrast between (49) and (50).

(48) a. A: I saw a man/somebody enter the building.
B: Who?

b. A: I saw some man enter the building.
B: #Who?

(49) a. Spanish
A: He visto a alguien entrar al edificio.
had.1SG seen A someone enter.INF in.the building
'I saw somebody enter the building.'
B: ¿A quién?
A who
'Who?'

[22] Since cancellation is also impossible in the case of *irgendein*, a conversational implicature account is problematic for German-type languages as well; we leave this issue for another occasion.

b. French
A: J'ai vu quelqu'un entrer dans l'immeuble.
I.had.1SG seen someone enter.INF in the.building
'I saw a man/somebody enter the building.'
B: Qui?
who
'Who?'

(50) a. Spanish
A: He visto a algún hombre entrar al edificio.
had.1SG seen A ALGÚN.M.SG man(M) enter.INF in.the building
'I saw ALGÚN man enter the building.'
B: #¿A quién?
A who
'#Who?'

b. French
A: J'ai vu quelque homme entrer dans l'immeuble.
I.had.1SG seen QUELQUE.SG man(M) enter.INF in the.building(M)
'I saw QUELQUE man enter the building.'
B: #Qui?
who
'#Who?'

While a *who* response is completely acceptable with plain indefinites, as in (48a) and (49), it results in a contradiction with an EI, as in as in (48b) and (50).

The ignorance effect triggered by *algún* and *quelque*, however, appears to lack three of the defining properties of a canonical conventional implicature; this is a problem for our analysis, but only at first sight.

The first supposed problem for our analysis is that *algún* and *quelque* appear not to be embeddable under logical operators. Alonso-Ovalle & Menéndez-Benito (2010), following Kratzer & Shimoyama (2002, 2017), take the disappearance of an inference in downward-entailing contexts as the most reliable indication of its conversational implicature status; on their view, "disappearance [of a particular inference] in downward-entailing contexts is one of the hallmarks of quantity-based conversational implicatures (Gazdar 1979, Horn 1989)" (Alonso-Ovalle & Menéndez-Benito 2013a: 38). It is indeed the case that the epistemic effect of *algún* disappears in these environments, as in (22).

(51) Spanish (Alonso-Ovalle & Menéndez-Benito 2010: 13)

a. Pedro duda que Juan salga con alguna chica del
Pedro doubts that Juan dates.SBJV with ALGÚN.F.SG girl from.the
departamento de lingüística.
department of linguistics
'Pedro doubts that Juan is dating any girl from the linguistics department.'

b. No es verdad que Juan salga con alguna chica del
not is true that Juan dates.SBJV with ALGÚN.F.SG girl from.the
departamento de lingüística.
department of linguistics
'It is not true that Juan is dating any girl in the linguistics department.'

Here, we see that, when *algún* is used under a verb such as *doubt*, as in (51a), or under negation, as in (51b), its ignorance inference disappears; the same results obtain for *quelque*, as in (52).

(52) French

a. Anne doute que Marie sorte avec quelque fille du
Anne doubts that Marie goes.out.SBJV with QUELQUE.SG girl from.the
département de linguistique.
department of linguistics
'Anne doubts that Marie is dating any girl from the linguistics department.'

b. Il n'est pas vrai que Marie soit sorti avec quelque fille
It NEG.IS not true that Marie is.SBJV went.out with QUELQUE.SG girl
du département de linguistique.
from.the department of linguistics
'It is not true that Marie dated any girl from the linguistics department.'

It appears to be the case that, in downward-entailing contexts, *algún* and *quelque* have an interpretation and distribution similar to that of NPIs (see Fălăuş 2015 for *vreun*): not only do they appear within the scope of negation, but they also appear in conditionals, as in (53).

(53) a. Spanish
Si Juan ha enviado algún regalo, le agaradezco.
if Juan has sent ALGÚN.M.SG present him thank
'If Juan has sent ALGÚN present, I thank him.'

b. French
Si Jean a envoyé quelque cadeau, je le remercie.
if Jean has sent QUELQUE.SG present I him thank
'If Jean has sent QUELQUE present, I thank him.'

Moreover, *algún* and *quelque* even appear in questions, a typical (though not downward-entailing) NPI environment, as in (54).

(54) a. Spanish
¿Ha enviado Juan algún regalo?
has sent Juan ALGÚN.M.SG present
'Has Juan sent ALGÚN present?'

b. French
Jean a-t-il envoyé quelque cadeau?
Jean has-he sent QUELQUE.SG present
'Has Jean sent QUELQUE present?'

As pointed out by Aloni & Port (2015) and has mentioned above, Alonso-Ovalle & Menéndez-Benito (2010) and others take the disappearance of an inference in downward-entailing contexts as the most reliable indication of its conversational implicature status. They seem then to hold that only conversational implicatures can systematically disappear in these environments. However, it appears to be generally possible to account for the systematic disappearance of ignorance in downward-entailing contexts with a theory

that does not treat it as a conversational implicature; the idea is that ignorance is not triggered when the existential occurs under negation because no question of identification arises. The same idea is expressed by Jayez & Tovena (2011): when negation is applied, this amounts to negating the existence of an individual and "it is difficult to imagine that a non-existing entity is 'unknown"' (Jayez & Tovena 2011: 106); it is only possible to associate ignorance to an individual that is *identified*. The loss of the epistemic effect in questions can receive the same analysis: the question operator scopes over the entire clause that hosts *algún* and *quelque*, exactly like a negative operator in a higher clause. Both *algún* and *quelque* are nevertheless grammatical in negative or interrogative sentences without the ignorance effect because they trigger domain widening. According to Aloni & Port (2015), this domain widening is justified if it creates a stronger statement. They note, however, that this is not possible in all languages with EIs; for example, Italian *un qualche* is not licensed under negation, as in (55).

(55) *Italian* (Aloni & Port 2015: 121)
??Nessuno ha risposto a una qualche domanda.
nobody has answered to UN QUALCHE.F question
Int. 'Nobody answered any question.'

Having said that, the cases of *algún* and *quelque* in downward-entailing contexts is clearly not necessarily dependent on conversational implicature analysis.

The second problem for our analysis is related to the redundancy test for implicatures: according to Alonso-Ovalle & Menéndez-Benito (2010), the ignorance expressed by *algún* is reinforceable without leading to redundancy, as in (56), and, traditionally, conventional implicatures do not tolerate redundancy.[23]

(56) Spanish (Alonso-Ovalle & Menéndez-Benito 2010: 15)
María sale con algún estudiante, pero no sé con quien.
María dates with ALGÚN.M.SG student but not know.1SG with whom
'María is dating ALGÚN student, but I don't know who.'

However, if we keep reference consistent between the two clauses, as is done in English to illustrate the effect (e.g., *John is a bachelor #and/but he is a man*), we obtain very different results for *algún*, as in (57).

(57) Spanish
Al antrar en su casa, María encuentra a algún hombre sentado
to enter in her house María finds A ALGÚN.M.SG man(M) sitting
en su salón, #pero/y no lo conoce.
in her living room but/and no him know
'When entering her house, María finds ALGÚN man sitting in her living room, #but/and she doesn't know him.'

[23] As shown by Aloni & Port (2010), the case of *irgendein* is less clear, as in (i).

(i) German
Irgendein Student hat angerufen, (?aber) ich weiss nicht wer.
IRGENDEIN.M.NOM.SG student has called but I know not who
'IRGENDEIN student called, (?but) I don't know who.'

Here, it does not appear to be possible to continue with the clause starting with *pero* 'but' or *y* 'and.' We find the same results for *quelque*, as in (58).

(58) French
En rentrant dans son bureau, Marie trouve quelque étudiant assis à
in entering in her office Marie finds QUELQUE.SG student sat at
son pupitre, #mais/et elle ne le connaît pas.
her desk but/and she NE him know not
'When entering her office, Marie finds QUELQUE student sitting at her desk, #but/and she doesn't know him.'

Examples such as (56) might sound alright because EIs also give rise to an indifference or insignificance effect (i.e., the speaker does not care who the referent is or does not think this information is important) and, as pointed out by Aloni & Port (2010), reinforcement might not lead to redundancy precisely because the speaker wants to signal that she is not indifferent, but ignorant about the potential referent of the nominal. We see this in the dialogue in (59); the use of *some guy* signals indifference or insignificance on the part of the speaker (i.e., the speaker does not want to give details about Chris), but the continuation expresses ignorance from the hearer's point of view.

(59) A. What did you do last night?
B. I met Chris at the corner restaurant.
A. Who is Chris?
B. Some guy I met at a party. You don't know him.

Thus, the not-at-issue content associated with the lexical item *some* in this context is '*x* is unimportant' rather than '*x* is unidentified.' The two different meanings represent two different foci (i.e., they are independent from one another) and this is why there is an illusion of redundancy.

The third supposed problem for the conventional implicature analysis of *algún* and *quelque* is related to embedded environments and speaker orientation. Alonso-Ovalle & Menéndez-Benito (2010) show that when *algún* is embedded under an attitude verb, as in (60a), the ignorance component does not have to be speaker-oriented; in (60), the ignorance of *algún* and *quelque* is anchored to John rather than to the speaker and this ignorance can be challenged by the speaker.

(60) a. Spanish (Alonso-Ovalle & Menéndez-Benito 2010: 37)
Juan sabe que María se casó con algún estudiante del
Juan knows that María SE married with ALGÚN.M.SG student of.the
departamento. Él no sabe con quién, ¡pero yo si!
department he NEG knows with whom but I yes
'Juan knows that María married ALGÚN student from the department. He does not know who, but I do!'

b. French
Jean sait que Marie s'est mariée avec quelque étudiant du
Jean knows that Marie SE.IS married with QUELQUE.SG student from.the
département. Il ne sait pas qui, mais moi si!
department. He NEG knows NEG who but me yes

'Jean knows that Marie married QUELQUE student from the department. He does not know who, but I do!'

The idea is that if the meaning of a conventional implicature embedded under a propositional attitude cannot be denied or challenged by the speaker, it follows that the element in question is speaker-oriented; consider the sentence in (61) from Potts (2007a).

(61) Sheila believes that Chuck, a psychopath, should be locked up. #But Chuck isn't a psychopath.

Here, *a psychopath* is a comment made by the speaker; therefore, it cannot be challenged by the speaker. Following this logic, if the ignorance component triggered by *algún* and *quelque* in (60a) and (60b), respectively was speaker-oriented, one would not expect these sentences would not be possible; instead, what (60) shows is that it is possible to challenge the ignorance component in an embedded clause, which means that, according to the traditional test Potts (2005), the ignorance component associated with the EI is not a conventional implicature.

However, while conventional implicatures are, according to Potts (2005), necessarily speaker-oriented, more recent research has shown that this is false, including later work by Potts (2007b), who has since revised his original account, allowing for perspective shifts to salient attitude holders or judges in the context (see Potts 2007b; Amaral et al. 2007; Harris & Potts 2009; Salmon 2009). It is therefore completely possible to posit a conventional implicature account for EIs in Spanish-type languages without a requirement for speaker-orientedness as an obstacle (see also Roberts 2006 for the idea that the meaning of *only* is best characterized as a non-speaker-oriented conventional implicature).

A final argument against a conversational implicature account of *algún* (and *quelque*) is given by Alonso-Ovalle & Menéndez-Benito (2013a) themselves: the conversational implicature account predicts that the epistemic effect associated with EIs should be sensitive to relevance. This, however, is contrary to fact: scalar implicatures do not arise when the scalar alternatives of the asserted proposition are not contextually relevant, but ignorance *is* conveyed by *algún* in a sentence like that in (62), despite the fact that *Which wasp stung you?* is not expected to be the question under discussion in any normal context (though this would be the contrary to the prediction made by the implicature analysis).[24]

(62) Spanish (Alonso-Ovalle & Menéndez-Benito 2013a: 44)
#Me picó alguna avispa.
me stung ALGÚN.F.SG wasp
'ALGÚN wasp stung me.'

As Alonso-Ovalle & Menéndez-Benito (2013a) explain, the sentence in (62) is odd "because it signals that the speaker cannot identify the wasp that stung her, which in turns suggests that the speaker might in principle be able to identify the particular wasp in question." The same effect obtains for *quelque*; in (63), ignorance is conveyed by *quelque* as well, despite lack of relevance.

[24] As mentioned by Alonso-Ovalle & Menéndez-Benito (2013a), the example sounds better "when we take *alguna avispa* to quantify over types of wasps, as discriminating between kinds of wasps is more feasible than discriminating between individual wasps."

(63) French
#Quelque guêpe m'a piqué.
QUELQUE.SG wasp me-has stung
'QUELQUE wasp stung me.'

If the ignorance effect triggered by *algún* and *quelque* is not derived by way of conversational implicature, as we have argued in this paper, then it is completely expected that the epistemic effect is not sensitive to relevance.

This closes section 5, in which we argued that the ignorance triggered by singular EIs in Spanish-type languages is achieved via a conventional rather than a conversational implicature. This conventional implicature account explains why the epistemic effect triggered by *algún* and *quelque* is non-cancellable.

6. Conclusion

In this article, we proposed that *algún* and *algunos* do not share the same set of features and that they are thus, despite appearances, not lexically related. The same argument was made for the contrast between *quelque* and *quelques*. We showed that both *algunos* and *quelques* are paucals (rather than plurals) and that this is why they cannot refer to atoms as a plural would (as is the case for German EIs).

A consequence of this analysis is that the absence of the epistemic effect in *algunos* and *quelques* cannot be traced back to the conversational implicature analysis of the ignorance exhibited by *algún* and *quelque*. The situation in German-type languages is different: singular and plural EIs share a common lexical item and this is why ignorance is conveyed by both forms. We argued that in Spanish and French the ignorance triggered by singular EIs is derived via a conventional implicature (i.e., via semantic means) rather than a conversational implicature (i.e., via pragmatic means).

By bringing together two important strands of research, i.e., the semantics of plurals with a focus on the exclusive/inclusive distinction and the typology of anti-specific indefinites, this article contributes empirically and theoretically to the current debate on how indefinites are interpreted as well as how ignorance emerges and is licensed in grammar.

In future work, we will review other languages in order to establish whether the predictions we make in this article turn out to be true. There may more variation than what is assumed here, but this in itself does not contradict our findings. We expect, however, that *some* languages will pattern like Spanish and French.

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