

Epistemic Indefinites: Are We Ignorant About Ignorance?

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Abstract

Epistemic indefinites make an existential claim and convey that the speaker does not know which individual makes this claim true. The account put forward by Aloni and Port [3, 2] —which we will dub ‘the Lack of Relevant Identification Approach’— defends that ‘not knowing who’ means that the speaker cannot identify the individual that satisfies the existential claim in a contextually relevant way. The Variation Approach (see, e.g., Alonso-Ovalle and Menéndez Benito [5], Chierchia [7], Fălăuş [9], Giannakidou and Quer [16]) assumes that ‘not knowing who’ means that that individual is not the same in all of the speaker’s epistemic or doxastic alternatives. In this paper, we will argue that the behaviour of Spanish *algún* presents challenges for both approaches. Our conclusion will be that we still lack a clear understanding of what the ignorance component conveys.

1 Epistemic Indefinites: Ignorance and Knowing Who.

Epistemic indefinites signal ignorance on the part of the speaker. This epistemic effect can be illustrated with the Spanish sentences in (1). Both (1-a), with the non-epistemic indefinite *un*, and (1-b), with the epistemic indefinite *algún*, convey that there is a linguistics student that María is dating. However, only (1-a) is consistent with the speaker knowing which student María is dating. Thus, the continuation “and I know who” is odd in (1-b).¹

- (1) a. María sale con un estudiante de lingüística, y yo sé quién es.
María goes out with UN student of linguistics and I know who is
‘María is dating a linguistics student and I know who.’
b. María sale con algún estudiante de lingüística, # y yo sé quién es.
María goes out with ALGÚN student of linguistics and I know who is
‘María is dating some linguistics student and I know who.’

This much is clear. But what exactly counts as ‘knowing who’? Alonso-Ovalle and Menéndez Benito [4] noticed a contrast between *algún* and the epistemic indefinite *some*. Suppose L and P are visiting the Math department. They don’t know anything about the people working there, and they haven’t seen any of them before. They suddenly see an individual, who can be inferred to be a professor, frantically dancing lambada on his desk. In this scenario, P can felicitously utter (2) but not (3).

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¹We will translate *algún* as *some*, although, as shown below, the two indefinites differ in their interpretation.

- (2) Look! Some professor is dancing on the table! [4, p.4]
- (3) # ¡Mira! ¡Algún profesor está bailando encima de la mesa!
 Look! ALGÚN professor is dancing on of the table
 ‘Look! Some professor is dancing on the table!’ [4, p. 4]

There is a sense in which L and P know who the professor is. They can visually identify him, and they can point to him. This type of ‘knowing who’ blocks the use of *algún*, but not the use of *some*. Aloni and Port [3] note that the contrast also holds between German *irgendein* (which behaves like *some*) and Italian *un qualche* (which behaves like *algún*). In view of examples like this, we can conclude that different epistemic indefinites are sensitive to different types of knowledge. This conclusion raises questions such as: (i) what counts as ‘knowing who’ for different epistemic indefinites?, (ii) what is the range of cross-linguistic variation? and, (iii) how are the constraints on ‘knowing who’ encoded?

A substantial part of the literature on epistemic indefinites assumes that the epistemic effect can be characterized —across the board— in terms of variation across the speaker’s epistemic/doxastic alternatives (see, among others, Alonso-Ovalle and Menéndez-Benito [4, 5], Chierchia [6, 7], Fălăuş [9, 10], Giannakidou and Quer [16]). Under this view, which we will refer to as ‘the Variation Approach,’ epistemic indefinites convey that the individual satisfying the existential claim is not the same in all of the speaker’s epistemic/doxastic alternatives.² Recently, Aloni and Port ([3, 2]) have put forward a more fine-grained proposal, which we will dub ‘the Lack of Relevant Identification Approach,’ that deals with the questions above by explicitly targeting the issue of what counts as ‘knowing who’ for different epistemic indefinites.

Our goal in this paper is rather modest. Using some hitherto unobserved data, we show that the epistemic effect of *algún* cannot be straightforwardly captured by either of the approaches above. On the one hand, the behaviour of *algún* presents a challenge for the Lack of Relevant Identification Approach. On the other, the Variation Approach is too coarse-grained to capture the full range of data. We tentatively suggest a way in which the Variation Approach could be refined to rise to the challenge, but we will leave an investigation of this idea for future research.

2 Ignorance as Lack of Relevant Identification.

We start by summarizing the core components of the proposal presented by Aloni and Port [3, 2].

Aloni and Port build on Aloni’s [1] observation that ‘knowing who’ is sensitive to context-dependent identification methods. Aloni [1] illustrates this with the context in (4).

- (4) In front of you lie two face-down cards. One is the ace of spades, the other is the ace of hearts. You know that the winning card is the ace of hearts, but you don’t know whether the ace of hearts it’s the card on the left or the card on the right. ([3],[1, p. 16])

Is (5) true in (4)? It depends on the method of identification chosen: (5) is true if cards are identified by their suit (identification by description) but false if they are identified by their position (identification by ostension).

- (5) You know which card is the winning card. ([3], cf. [1, p. 16])

²Variation approaches differ with respect to the source of the variation component. Two lines have been pursued: (i) the variation component is derived as a quantity implicature (e.g., [4, 5, 6, 9, 10, 7]); (ii) the variation component is hard-wired (for instance, in [16] this component is treated as a felicity condition.) In this paper we will focus on the content of the epistemic effect and stay away from the issue of how it is derived.

Building on this observation, Aloni and Port assume that the context provides a relevant way of ‘knowing who’ (a relevant identification method) and claim that epistemic indefinites signal that the speaker cannot identify the witness of the existential claim using that method. Assume, for instance, that being able to name individuals counts as knowing who they are in a particular context. In that context, we should be able to use the sentence in (6) if we cannot name the professor — even if we can point at him.

(6) Look! Some professor is dancing on the table! [4, p.4]

In Aloni and Port’s approach, methods of identification are modelled as conceptual covers [1]. A conceptual cover CC is a set of individual concepts (functions from worlds to individuals) $\{i_1, i_2, \dots\}$ that jointly ‘cover’ the domain of quantification (in any w , each individual concept is true of one individual, and in any w each individual is picked out by one of these individual concepts). The use of an epistemic indefinite depends on conceptual covers in the following way.³ Suppose that there are two professors, Professor Smith and Professor Jones. A sentence like (7) could in principle be interpreted with respect to the two covers in (8). (7) signals that the speaker can identify the professor with respect to some cover CC (9), and that CC is not the cover made salient by the context.

(7) Mary is dating some professor.

(8) $\{\lambda w.\iota x.\text{TO-THE-RIGHT}_w(x), \lambda w.\iota x.\text{TO-THE-LEFT}_w(x)\}, \{\lambda w.\text{Smith}, \lambda w.\text{Jones}\}$

(9) There is at least one i in CC such that for all w compatible with what the speaker believes, Mary is dating $i(w)$.

To account for the contrast between *algún* (2) and *some* (3), and for a parallel contrast between Italian *un qualche* and German *irgendein*, Aloni and Port assume the existence of the hierarchy of methods of identification in (10) and the principle in (11).

(10) ostension $>$ _{higher than} naming $>$ _{higher than} description

(11) In Romance, but not in Germanic, the identification method required by knowledge must be higher in order [in (10)] than the identification method required for epistemic indefinites.

Together, (10) and (11) predict that epistemic indefinites in Romance are incompatible with pointing (as ostension is the highest method in (10)). Thus, (2) is ruled out, but (3) will be acceptable if ostension is not the relevant identification method.

3 The Challenge of *Algún*

Giannakidou and Quer [16] argue that *algún* is incompatible with *all* the methods of identification considered by Aloni and Port [3]. They support their claim with the examples in (12) through (14).⁴ The example in (12) illustrates that *algún* is incompatible with ostension (as in Alonso-Ovalle and Menéndez-Benito’s [4] example). The example in (13) shows that *algún* is incompatible with naming the individual, and (14), that it is incompatible with identification

³This is a simplification. Aloni and Port’s theory is cast in a dynamic semantics with conceptual covers [1]. What we present here is an informal rendition of (part of) their proposal. The reader is referred to [3] for the details of the technical setup.

⁴They also discuss parallel facts for Greek *kajjos*.

by description. Giannakidou and Quer [16] conclude from this that Aloni and Port's account is not tenable.

- (12) Tengo que leer un artículo de algún profesor. # Es aquel señor de allí.
 have:1s read an article of ALGÚN professor is that guy of there
 'I have to read an article of some professor or other. It's that guy over there.' [16, p.140]
- (13) Tengo que quedar con algún profesor. # Se llama Bob Smith.
 have:1s meet with ALGÚN professor SE is-named Bob Smith
 'I have to meet some professor or other. # His name is Bob Smith.' [16, p.140]
- (14) Tengo que quedar con algún profesor. # Es el director del Dpt. de Filosofía.
 have:1s meet with ALGÚN professor is the director of-the Dept of Philosophy
 'I have to meet some professor or other. He is the director of the Ph. Dpt.' [16, p.140]

Note, however, that for this argument to be complete, we would need to provide relevant scenarios for the examples above: as we have seen, on Aloni and Port's account, epistemic indefinites signal that the speaker cannot identify the witness of the existential claim by *the contextually relevant method*. Thus, examples like (13) and (14) will only challenge Aloni and Port's account if they cannot be uttered in contexts where the salient identification method is not the one available to the speaker.⁵ That seems to be indeed the case. According to our intuitions, (13) is deviant in a context where ostension is relevant but not available to the speaker (e.g., in a situation where we are looking for the professor in a crowded room, and pointing at him would be the most effective way of finding him, but we cannot do so (see the contexts in Aloni and Port [2])), and (14) would still be ruled out in a scenario where naming is relevant but not available to the speaker (for instance, if we arrive at the Philosophy department, and we are looking at a series of doors with the professors' names on them, but we don't know the name of the professor that we are searching for).

While we agree with Giannakidou and Quer [16] that these judgments pose a problem for the Lack of Relevant Identification Approach, we think that their claim that *algún* is incompatible with *all* methods of identification is too strong. Surprisingly, *algún* is not always incompatible with pointing. Consider, as illustration, the following contrast. Suppose that P looks out of the window and she sees María kissing a boy. If the circumstances are as in (15), P cannot felicitously utter (17). However, if they are as in (16), P can felicitously utter (17) while pointing at the boy.

- (15) *Clear vision*: P hasn't seen the boy before, but she can see him very clearly now.
- (16) *Blurry vision*: María and the boy are far away. P can see that María is kissing a boy, but she cannot make out the boy's features.
- (17) ¡Mira! ¡María está besando a algún chico!
 Look! María is kissing a ALGÚN boy!
 'Look! María is kissing some boy.'

This type of contrast is problematic for the Lack of Relevant Identification Approach.⁶ Like the examples in (13) and (14) above, the contrast between (15) and (16) strongly suggests that *algún* is not sensitive to what method of identification is relevant in the context. It is not clear what method of identification would be required in (15) and (16), but whatever it

⁵Example (12) is actually not problematic for Aloni and Port, as they predict that ostension rules out epistemic indefinites in Romance. But see below.

⁶Slade [17] shows that the same pattern obtains for the Sinhala epistemic indefinite *wh-hari*.

might be, there is no reason to assume a difference between the two contexts. Additionally, the acceptability of (17) in (16) shows that identification by ostension does not necessarily rule out epistemic indefinites in Romance.

In what follows, we show why the contrast is also problematic for those approaches that characterize the ignorance effect in terms of variation of witnesses across the speaker's epistemic/doxastic alternatives.

4 The Challenge for the Variation Account.

As noted above, several accounts of epistemic indefinites assume that the epistemic effect can be captured by a condition that requires variation of the individual(s) satisfying the existential claim across the speaker's epistemic/doxastic alternatives. Alonso-Ovalle and Menéndez-Benito [5], for instance, model the epistemic effect of *algún* as in (18) below.

- (18) a. LF: algún (P)(Q)
 b. $\exists w', w'' \in \mathcal{D}_w[\{x : P(w')(x) \ \& \ Q(w')(x)\} \neq \{x : P(w'')(x) \ \& \ Q(w'')(x)\}]$
 (\mathcal{D}_w is the set of worlds compatible with the speaker's evidence in w) [5, p. 38]

The formulation in (18-b) follows closely an unpublished suggestion that von Stechow [18] made for *some*. In turn, this suggestion follows von Stechow's own characterization of the ignorance component of *whatever* [19], which reformulates an earlier proposal by Veneeta Dayal [8].⁷

Heller and Wolter [11] argue that an account along these lines does not capture the ignorance effect of *whatever*. In what follows, we will summarise their argument and note that, in view of the examples presented in Section 3, this argument also applies to *algún*. Therefore, the formulation in (18-b) cannot fully capture the epistemic effect of this item.

The example in (19) illustrates the ignorance reading of *whatever* free relatives —the sentence conveys that the speaker does not know what Arlo is cooking.⁸

- (19) There's a lot of garlic in whatever (it is that) Arlo is cooking. [19, p. 27]

Building on Dayal's [8] analysis of *whatever*, von Stechow [19] models this ignorance component as a variation requirement. His analysis is summarized in (20).

- (20) a. LF: whatever (w)(F)(P)
 b. denotes: $\iota x.P(x)$
 c. presupposes: $\exists w', w'' \in F[\iota x.P(w')(x) \neq \iota x.P(w'')(x)]$ [19, p. 28]

In line with previous work, von Stechow [19] treats *whatever* free relatives as definite descriptions (20-b). Additionally, he proposes that *whatever* presupposes that the individual that the definite description picks out is not the same in all worlds in the modal base F (20-c). In cases like (19), F is the set of epistemic/doxastic alternatives of the speaker (or the hearer). Given this, the example in (19) will assert that there is a lot of garlic in the thing that Arlo is cooking and presuppose that this thing *is not the same* in all epistemic/doxastic alternatives.

⁷For other, slightly different, ways of formulating the variation condition, see [6], [7], [9], and [16]. The epistemic component derived in [6, 7] and [9] requires that there be at least two (different) *actual* individuals d_1, d_2 in the domain of quantification and at least two (different) accessible worlds w_1, w_2 such that d_1 has property Q in w_1 and d_2 has the property Q in w_2 . The formulation poses the problem of how to make sure that the relevant accessible worlds share the same individuals. Space constraints prevent us from discussing the difference between these formulations and ours.

⁸Ignorance readings can also be anchored to the epistemic state of the hearer. See [19] for discussion.

Heller and Wolter [11] present a number of arguments against this view. One of them has to do with the possibility of identifying the individual that *whatever* picks out by ostension. They note that *whatever* can be used in situations where the speaker can point at the individual that *whatever* picks out in the actual world. They illustrate this with the context in (21).

- (21) “Suppose Becca enters the kitchen and sees Bob stirring a pot. Becca cannot say what dish Bob is cooking, but she can point out the stuff that he is stirring.” [11, p. 174]

In the situation in (21), Becca would be able to use a demonstrative pronoun, as in (22). If she can infer from the smell that one of the ingredients of the dish that Bob is cooking is onion, she will also be able to utter (23).

- (22) Bob is cooking that. [11, p. 174]
 (23) Whatever Bob is cooking uses onions. [11, p. 174], after [8] (ex. 27)

Heller and Wolter [11] note that this argues against an account based on strict identity across worlds. Demonstratives, like proper names, are assumed to be rigid designators (Kaplan [12]). Given that the speaker can use a demonstrative to refer to the thing that Bob is cooking, we can assume that the free relative in (23) picks out the same individual across the speaker’s epistemic/doxastic alternatives. If this is so, the variation condition is not met. Yet (23) is fine.

Similar remarks apply to the case of *algún*. In both the clear vision and the blurry vision contexts presented in Section 3, the speaker can point at the witness of the existential claim, and would therefore be able to use a demonstrative to refer to the individual. A condition like (18-b), based on strict identity, would thus predict *algún* to be infelicitous in both cases. As we have seen, this is contrary to fact.

But perhaps we should move away from strict identity and rely on similarity. In both contexts above, the individuals that María is kissing across the speaker’s doxastic/epistemic alternatives are similar in some way. In the clear vision scenario, these individuals share their physical appearance (although they can vary wildly with respect to many other properties, e.g., their histories or personalities). In the blurry vision scenario, they share, at the very least, the same physical location at the time of the kissing, relative to the speaker (but can also vary in many other respects, including now their physical appearance). Formulating the variation condition in terms of the types of similarity that *algún* allows for might give the Variation Approach a way to handle the contrast.

Adopting a Lewisian ontology gives us a way to do this. According to Lewis [13, 14, 15] individuals only exist in one world. Cross-world identity is modelled via counterpart relations, relations of comparative similarity. As an illustration, consider the modal sentence in (24). Suppose that Humphrey is an actual individual. Since individuals are world-bound, (24) cannot be paraphrased as “there is an accessible world *w* such that Humphrey wins at *w*”. This could never be true, since Humphrey is not even part of *w*. Instead, (24) should be paraphrased as “there is an accessible world *w* such that *some counterpart of Humphrey* wins at *w*.”

- (24) Humphrey might win. cf. [15, p.9 and ff.]

Counterpart relations are similarity relations. For an individual *x* to be counterpart of an individual *y*, *x* and *y* have to be substantially similar in some way. But individuals can resemble each other in many different ways. There are many possible similarity relations, and as a result, there are many possible counterpart relations.

The Variation Approach might be able to handle the contrast between the scenarios in (15) and (16) by formulating the variation condition in terms of counterpart relations. As noted

above, in both of those scenarios the individuals that María is kissing are similar in some way, and therefore can be considered counterparts under some similarity relation.⁹ One way to account for the contrast might be to claim that a sentence like (17) above (roughly) conveys (25), where *algún* would constraint what counts as a suitable counterpart relation R so as to rule out the counterpart relation in the clear vision scenario but allow the one in the blurry vision scenario.

- (25) There are at least two doxastic / epistemic alternatives of the speaker's, w_1 and w_2 , such that the boy that María is kissing in w_1 is not a counterpart of the boy that María is kissing in w_2 under a suitable counterpart relation R .

This is where the challenge to the Variation Approach lies. The tasks ahead for a variation account would be (i) to specify what counterpart relations rule out the use of *algún*, and (ii) to provide an account of how exactly *algún* imposes those restrictions. We are not going to undertake these tasks here, but limit ourselves to noting that the first task is far from trivial. Let us illustrate why with a couple of examples.

In view of the examples in (15) and (16) one might think that what matters is the degree of perceptual acquaintance that the speaker has with the witness. But consider the following context. You and I are looking out the window in a hotel room. We arrived to the hotel at night, and we haven't yet seen any of the surroundings. The window overlooks a square with a statue. We can see the statue, but we cannot see its features clearly. All we can make out is that it is a statue, and that it represents a human figure. Suddenly, we see our friend María approach the statue and hug it. In this new blurry vision context, I would not be able to utter (26), even though I have the same degree of perceptual acquaintance with the witness of the existential claim as the speaker in (16) above.

- (26) María está abrazando (a) alguna estatua.
 María is hugging A ALGUNA statue
 'María is kissing some statue.'

One might also think that what matters is whether the counterparts share stable properties or not. Location is a (relatively) stable feature of a statue but not of a human being. But this cannot be it, either. For suppose that we attended a short meeting of a student committee yesterday morning. We know that, afterwards, María kissed the chair of that committee. Suppose, furthermore, that the individual in question held the property of being the chair of the committee for a very short period of time, only for the duration of the meeting. A speaker that has this information would not be able to utter (27).

- (27) Ayer María besó a algún estudiante.
 yesterday María kissed A ALGÚN student
 'Yesterday, María kissed some student.'

5 To Conclude: Are We Ignorant About Ignorance?

In view of the previous discussion, we conclude that we still do not have a firm grasp on the content of the ignorance effect triggered by *algún*. The 'clear *vs.* blurry vision' cases presented

⁹In the blurry vision scenario, the relevant individuals might be what Lewis [14, p. 379] calls *counterparts by acquaintance*: "Counterparts by acquaintance (...) are united by resemblance in the relation to a subject of attitudes."

in Section 3 cast doubts on the Lack of Relevant Identification Approach, according to which epistemic indefinites signal that the speaker cannot identify the witness of the existential claim by resorting to the contextually relevant method of identification. But these examples are also challenging for a Variation Approach that formulates variation in terms of similarity, since it is not immediately clear how to determine what similarity relations rule out the use of *algún*.

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