

## Minimal Domain Widening. Keywords: Free Choice, Indefinites, Implicatures.

**0. Claim.** Domain shifting (DS) plays a crucial role in recent semantic analyses of indefinites: exceptional scope has been derived from maximal domain shrinking [7], and the behavior of free choice items (FCIs) from maximal widening [2,3]. Building on Matthewson [5], Kratzer [3] puts forth the hypothesis that indefinite determiners perform DS operations, and calls for an investigation of the typology of such operations. By analyzing the behavior of the Spanish indefinite *algún* in modal contexts, we show that the inventory of possible DS operations must include a constraint against singleton domains (minimal domain widening). This constraint triggers an implicature of modal variation, consistent with, but weaker than, free choice.

**1. Domain Widening and Free Choice.** German *irgendein* is an existential FCI [4]. When it scopes below the modal in (1), the sentence conveys, besides (2), that for every doctor  $d$  in the domain of quantification  $D$ , there is a (different) permitted world where Mary marries  $d$  ('the F(ree) C(hoice) C(omponent)'). Kratzer and Shimoyama [4] derive the FCC as a conversational implicature by assuming that *irgendein* signals that  $D$  is maximal. Simplifying: for any  $D' \subset D$ , (3) asymmetrically entails (2), so for any  $D' \subset D$  the speaker should have claimed (3) instead of (2) (Quantity). The hearer assumes that the speaker didn't make any of those alternative claims to avoid saying something false (Quality). If (2) is true, and (3) is false for every  $D' \subset D$ , the FCC must be true.

**2. *Algún* is not a FCI.** The sentence in (4a) is deviant if the speaker knows in which room Juan is — in contrast, (4b) is fine. This requirement disappears in downward entailing environments ((5) does not convey that there is no variation among the relevant epistemic alternatives as to which room Juan is), and, so, it looks like a Quantity-based implicature. In fact, *algún* has been analyzed as a domain widener that, just like *irgendein*, is associated with a FCC [1]. We show, however, that the modal variation implicature associated with *algún* is weaker than free choice: the sentence in (4a) is appropriate in the context in (6), where it is false that for every room  $r$  in the house, it might be the case that Juan is in  $r$ .

**3. An Anti-Singleton Indefinite.** We start with the observation that *algún* cannot range over singleton sets: (7a) is deviant, (7b) is fine. Contra Alonso-Ovalle and Menéndez-Benito [1], we contend that *algún* is not a domain widener, but simply signals, via a lexical presupposition, that its domain is not a singleton (8). It seems then plausible to assume that the assertion made by a sentence like (4a) with respect to a domain  $D$  does not compete with *all* alternative stronger claims that would have resulted from using a subdomain of  $D$ , as in the K & S analysis of *irgendein*, but that it rather competes with all alternative claims that would have resulted from using any *singleton* subdomain of  $D$ . A K & S-style reasoning derives the inference that the speaker of (4a) does not know which room Juan is (without requiring him to be completely ignorant). Let  $D$  be {the kitchen, the bedroom, the bathroom, the living room}. The competing domains will now be {the kitchen}, {the bedroom}, {the bathroom}, {the living room}. Upon hearing (4a), the hearer will conclude for any of those rooms that the speaker is not convinced that Juan is there. This is compatible with the speaker being convinced that Juan is not in the bedroom or in the bathroom, as in (6).

**4. Blocking.** The possibility sentence in (12) is also appropriate in situations where not all rooms are possibilities. Yet modal variation cannot be derived as before: if (10) is true, (11) must be true for some singleton  $D' \subset D$ . In fact, via a K & S-style reasoning, the hearer could assume that the speaker used a  $D$  larger than a singleton to signal antiexhaustivity (that for any singleton  $D', D'' \subset D$  if the claim is true with respect to  $D'$ , it must also be true with respect to  $D''$ ) which would derive a FCC, contrary to fact. We contend that the reason for choosing *algún* cannot be to convey FC here, since, in this environment, the determiner *cualquiera* conveys FC truth-conditionally. The FC inference cannot be blocked this way in (4a), because *cualquiera* is ruled out in necessity sentences [6].

**5. Conclusion.** The picture that emerges from this investigation so far is that to understand how 'modal' indefinites differ we should compare both the operations that they perform on the domain of quantification and their interactions with other determiners that can express truth-conditionally what they implicate.

- (1) Mary musste irgendeinen Arzt heiraten.  
Mary had to *irgend-one* doctor marry  
'Mary had to marry some doctor or other — any doctor was a permitted option. (Kratzer, 2005)
- (2) In every permitted world  $w$ , there is a doctor  $d$  in domain  $D$  such that Mary marries  $d$  in  $w$ .
- (3) In every permitted world  $w$ , there is a doctor  $d$  in domain  $D'$  such that Mary marries  $d$  in  $w$ .
- (4) a. Juan tiene que estar en alguna habitación de la casa.  
Juan has to be in *ALGUNA* room of the house.  
b. Juan tiene que estar en una habitación de la casa.  
Juan has to be in *UNA* room of the house.  
'Juan has to be in a room of the house.'
- (5) No es verdad que Juan tenga que estar en alguna habitación de la casa.  
Not is true that Juan has to be in *ALGUNA* room of the house.  
'It's not true that Juan has to be in a room of the house.'
- (6) Playing hide-and-seek. The speaker is sure that Juan is inside the house (and, not, in the garden or in the barn), but does not know where he is. The speaker is convinced that Juan is not in the bathroom or in the bedroom, but for all she knows, Juan could be in any of the other rooms.
- (7) a. La ganadora fue alguna chica que resultó ser la única hija del Marqués.  
The winner was *ALGUNA* girl that happened to be the only daughter of the Marqués.  
b. La ganadora fue una chica que resultó ser la única hija del Marqués.  
The winner was *UNA* girl that happened to be the only daughter of the Marqués.  
'The winner was a girl who happened to be the only daughter of the Marquis.'
- (8)  $\llbracket \text{algún}_C \rrbracket^g = \lambda P_{\langle e,t \rangle} \lambda Q_{\langle e,t \rangle} : |\{x | g(C)(x) \ \& \ P(x)\}| > 1. \exists x [P(x) \ \& \ g(C)(x) \ \& \ Q(x)]$
- (9) a. Juan puede estar en alguna habitación de la casa.  
Juan might be in *ALGUNA* room of the house.  
b. Juan puede estar en una habitación de la casa.  
Juan might be in *UNA* room of the house.  
'Juan might be in a room of the house.'
- (10) There is at least one accessible world  $w$  and at least one room  $x$  in  $D$  such that Juan is in  $x$  in  $w$ .
- (11) There is at least one accessible world  $w$  and at least one room  $x$  in  $D'$  such that Juan is in  $x$  in  $w$ .
- (12) Juan puede estar en cualquier habitación de la casa.  
Juan might be in any room of the house.

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