Modal Indefinites

Paula Menéndez-Benito

Universitat Pompeu Fabra

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Today

- 1. Assessing the implicature account.
- 2. Presenting an alternative proposal: the conceptual cover approach (Aloni and Port 2010/2013).
- 3. Challenges for the conceptual cover approach.

Roadmap

Assessing the Implicature Approach Interaction with Modals Ways of Knowing Who

2 The Conceptual Covers Approach Presenting the Proposal Challenge 1: The content of the epistemic effect Challenge 2: The distribution of the epistemic effect

Recall

- Recall the parameters of variation we discussed:
 - 1. Interaction with modals.
 - Limited distribution.
 - Different interpretation.
 - 2. Types of ignorance
 - Type vs. token.
 - Ways of knowing who.
- Which parameters of variation might be accounted for with the tools provided by the implicature account?

Roadmap

Assessing the Implicature Approach Interaction with Modals

Ways of Knowing Who

2 The Conceptual Covers Approach

Presenting the Proposal Challenge 1: The content of the epistemic effect Challenge 2: The distribution of the epistemic effect

Interaction with Modals

- Epistemic indefinites can impose restrictions
 - 1. on the types of modals that they can combine with.
 - 2. on the range of interpretations they give rise to when they are in the scope of a modal operator.

Distribution

- Some epistemic indefinites can be interpreted under deontic and epistemic modals. E.g, Spanish *algún*.
- Others are ungrammatical under deontic modals. (See, e.g., Farkas 2002; Fălăuş 2009, 2011a,b, 2014 on Romanian vreun).

Blocked under Deontics

- (1) * Trebuei să mă înscriu la vreun curs până must SUBJ REFL register at VREUN class until mâine.
 tomorrow
 - 'I have to register for a class by tomorrow.'

(Fălăuş, 2014)

Licensed under Epistemics

(2) Cu numele lui, trebuie să fie vreun aristocrat.
 with name-the his must subj be VREUN aristocrat
 'Given his hame, he must be some aristocrat.'
 (Fălăuş, 2014)

Interpretation

- Some epistemic indefinites have been reported to have a different range of interpretations under different modals.
- E.g., German *irgendein* (Port 2010, Lauer 2010, Aloni and Port 2010/2013).

Total Variation with Deontics

- (3) Mary muss irgendeinen Arzt heiraten. Mary must IRGENDEIN doctor marry (Kratzer and Shimoyama, 2002)
- → Free Choice Effect: all the doctors are permitted options.

Partial Variation with Epistemics

 (4) Juan muss in irgendeinem Zimmer im Haus Juan must in some room in-the house sein.
 be
 'Juan must be in some room of the house.

(Aloni and Port, 2010/2013)

Partial Variation: At least two rooms are epistemic possibilities.

Beyond Indefinites

- Other items have been claimed to be sensitive to the epistemic / deontic divide.
- Crnič 2011: concessive particles like Slovenian *magari* are licensed under deontic modals, but not under epistemic ones.

Interaction with Modals

- The implicature account we have presented is blind to the type of modal.
- The attested sensitivity to type of modality is thus unexpected on this approach.

A Response

- The contrasts in interpretation and distribution that we have described can be traced down to the interpretation of the modal.
- Claim: Epistemic and deontic modals have different 'free choice potentials'. Deontics are intrinsically free choice.
- Chierchia 2013; Fălăuş 2014. See Aloni and Franke 2013 for a different version of this claim.

Reported Intuitions

- (5) John must / may go to one of the rooms upstairs.
- (Unless specified otherwise:) J. is allowed to go to any room.
 - (6) John must / might be in one of the rooms upstairs.
- → no default free choice inference.

(Fălăuş, 2014, 163)

Intuitions?

Universal Free Choice Inferences

- Universal free choice inferences (Chemla, 2009).
 - (7) a. Every student may take semantics or pragmatics.
 - b. Every student may take semantics and every student may take pragmatics.
- van Tiel (2011): don't arise as readily with epistemics.
 - (8) a. According to the professor, every research question might be answered by a survey or an experiment.
 - According to the professor, every research question might be answered by a survey, and, according to the professor, every research question might be answered by an experiment.
- See discussion in Aloni and Franke 2013.

FC Potential: Different Implementations

- Chierchia 2013: meaning postulates encoding the free choice potentials of deontic modals ('strong free choice modals') and bouletic modals ('weak free choice modals').
- Fălăuş 2014: (building on Aloni 2007) deontic (more generally, priority) modals and imperatives introduce universal quantification over alternative propositions. This account was discussed but rejected by Aloni and Franke (2013).

FC Potential: Different Implementations

- Aloni and Franke 2013 (roughly):
 - Deontic free choice inferences are often more relevant for practical purposes (choosing a course of action).
 - As a result, free choice effects are more readily and frequently available with deontics.
 - Pragmatic fossilization process: free choice effects become part of the semantics.
 - Dynamic semantics implementation.

Coming Up Next

Consequences for the interpretation / distribution of epistemic indefinites under modals.

Fălăuş on vreun

- Like *algún*, *vreun* conveys a partial variation implicature.
- In addition, it triggers an anti-free choice implicature.
 - (9) The 'shell game' requires three shells of boxes and a small ball. The ball is placed under one of the boxes and the operator quickly shuffles the boxes around. In order to win, the player has to identify the box containing the ball.
 - (10) # Mingea trebueie să fie în vreo cutie.
 ball-the must SUBJ be.3sg in VREUN box
 'The ball must be in some box or other.'

(Fălăuş, 2014)

Fălăuş on vreun

- *Vreun* blocked under deontic modals because they require total variation.
- This possibility also discussed in Aloni and Franke 2013.

Chierchia on irgendein

- Like algún, irgendein conveys a partial variation implicature.
- The free choice effect that we see with deontic modals is contributed by the modal itself.
- This possibility also discussed in Aloni and Franke 2013.
- (Alternative: ambiguity).

Partial Variation Indefinites

- If we build free choice into the meaning of deontic modals (Fălăuş 2014; Chierchia 2013) partial variation indefinites should convey free choice in the scope of these modals (Alonso-Ovalle and Menéndez-Benito 2013b; Aloni and Franke 2013).
- This prediction does not seem upheld for algún.
- Aloni and Franke 2013 make the same claim for *un qualche*. But cf. Chierchia 2013 for different judgments. See discussion in Fălăuş 2014.

Partial Variation

- (11) El departamento puede contratar a alguno de The department can hire ALGUNO of los candidatos que han solicitado el puesto. the candidates that have applied to the position 'The department can hire some of the candidates that have applied to the position.' (Alonso-Ovalle and Menéndez-Benito, 2010, 10)
- Can describe a situation where there are candidates that the department cannot hire.
 - But cf. Fălăuş 2014 for further discussion of the data.

Roadmap

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Types vs. Tokens

- Some epistemic indefinites can express both type- and token-ignorance.
 - (12) a. There's some plant growing through the wall of my room.
 - b. The hackers implanted a virus into some file on this computer.

(Weir, 2012)

 Others are specialised on one of these uses: contrast between Japanese *dore-ka* ('which-ka') and *nani-ka* ('what-ka') (Alonso-Ovalle and Shimoyama, 2014).

Types vs. Tokens

- Scenario: J and L are hiking in the woods. As they go down a steep hill, they see a troop of mushrooms. J's hand inadvertently touches one. She clearly sees the mushroom that she touched, but she does not know what class of mushroom it is.
 - # Dore-ka kinoko-ni sawat-ta. which.one-KA mushroom-DAT touch-past
 'I touched a mushroom.'
 - (14) Nani-ka kinoko-ni sawat-ta. what-KA mushroom-DAT touch-past
 'I touched a mushroom.'

(Alonso-Ovalle and Shimoyama, 2014)

Domain of Quantification

 Quantification over sets of individuals vs. quantification over sets of subkinds (see Weir 2012; Alonso-Ovalle and Shimoyama 2014).

What Counts as (not) Knowing Who?

- Context: L and P are visiting the Math Department. They have never seen any of the professors there. They see an individual (who can be inferred to be a professor) dancing on his desk.
 - (15) Look! Some professor is dancing on the table!
 - # ¡Mira! Algún profesor está bailando encima de Look! ALGÚN professor is dancing on of la mesa! the table!

(Alonso-Ovalle and Menéndez-Benito, 2003)

Ways of Knowing Who

- Not addressed in implicature accounts.
- Next up: Discussing a proposal that explicitly tackles this issue.

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2 The Conceptual Covers Approach

Presenting the Proposal Challenge 1: The content of the epistemic effect Challenge 2: The distribution of the epistemic effect

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2 The Conceptual Covers Approach Presenting the Proposal

Challenge 1: The content of the epistemic effect Challenge 2: The distribution of the epistemic effect

Aloni and Port 2010/2013

- The first proposal that addresses the question of what counts as (lack of) knowledge for epistemic indefinites, across languages.
- (See also Aloni and Port 2015.)

Background: Aloni 2001

- Aloni (2001): knowing who/what & identification methods.
 - (17) In front of you lie two face-down cards. One is the A♠, the other is the A♡. You know that the winning card is the A♡, but you don't know whether the A♡ is the card on the left or the card on the right. (Aloni, 2001)
 - (18) You know which card is the winning card. (Aloni, 2001)
- (18) is true if cards are identified by their suit.
- (18) is false if cards are identified by their position.

Aloni 2001: Conceptual Covers

- Methods of identification are modelled as conceptual covers.
- A conceptual cover *CC* is a set of individual concepts such that in each *w*, every concept in *CC* true of one individual and every individual instantiates one concept in *CC*.
- Illustration: some salient covers in the card scenario.

Ostension:	{ $\lambda w.\iota x. \text{LEFT}_w(x), \lambda w.\iota x. \text{RIGHT}_w(x)$ } ({the card on the left, the card on the right})
Naming:	$\{\lambda w. A \spadesuit, \lambda w. A \heartsuit\}$ {the ace of spades, the ace of hearts}

A & P on Els

A & P's account is cast within the dynamic semantics in Aloni 2001. I will abstract away from the technical details, and present an informal rendition of (part of) their proposal.

- Assumption: The context provides a salient cover.
- Conceptual Cover Shift: The use of an epistemic indefinite signals that the speaker cannot identify the witness of the existential claim by means of the salient cover (but may be able to identify him by means of another cover).

Conceptual Cover Shifts

Abstracting away from the dynamic setup

- (19) Juan is dating some girl.
- The speaker can identify the professor with respect to some cover *CC*.
 - (20) There is a *c* in *CC* such that for every *w* compatible with what the speaker believes, Juan is dating c(w) and c(w) is a girl.
- The *CC* available to the speaker is not the one provided by context.

Illustration

(21) I have to meet with some professor.

- Context: We are looking for a professor in the Linguistics Dept. All we see are closed office doors with nameplates.

 [~]_{Relevant cover:} Naming
- Prediction: (21) should be fine as long as the speaker does not know the name of the professor

(even if she knows, e.g., that the professor is the head of the department (identification by description)).

(See Aloni 2001 for similar contexts.)

Cross-linguistic Contrasts

- (22) Look! Some professor is dancing on the table!
- (23) # ¡Mira! Algún profesor está bailando encima de la Look! ALGÚN professor is dancing on of the mesa! table!
 - Aloni and Port (2010/2013): a parallel contrast obtains between
 - German *irgendein* (\approx *some*) and
 - Italian *un qualche* (\approx *algún*).

Cross-linguistic Contrasts: Aloni & Port

- (24) ostension $>_{higher than}$ naming $>_{higher than}$ description
- (25) In Romance, but not in Germanic, the contextually relevant identification method must be higher [in (24)] than the identification method available to a speaker using an epistemic indefinite.

Prediction: Romance Els incompatible with pointing (as ostension is the highest method in (24)).

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Preview

- Background: Giannakidou and Quer (2013) claim that *algún* is incompatible with *all* the identification methods considered by Aloni and Port.
- *Algún* is indeed incompatible with naming and description, regardless of what method of identification is salient in the context (no conceptual cover shift).
- But algún is not always incompatible with ostension.
- I Alonso-Ovalle and Menéndez-Benito 2013a, forthcoming.

Part 1: No Sensitivity to Context

- Recall: A & P claim that Els signal that the speaker cannot identify the witness by means of the contextually salient CC. Other methods of identification are allowed.
- (Building on Giannakidou and Quer 2013): *Algún* is not sensitive to what method of identification is salient in the context.

Naming is Salient

(26) Context: We are looking for a professor in the Philosophy Department. All we see are closed office doors with nameplates.

(based on similar contexts in Aloni 2001)

(27) Tengo que quedar con algún profesor. # Es el director del departamento de filosofía.

'I have to meet with some professor or other. He is the director of the Philosophy Department.'

(Giannakidou and Quer, 2013).

ostension >_{higher than} naming (salient) >_{higher than} description (available)

- Prediction: (27) should be good in (26).
- Intuition: (27) is bad in (26).
 - Prediction not met

Pointing is Salient

(28) Context: We are looking for a professor in a crowded room. Pointing at her would be the most effective way of singling her out.

(based on similar contexts in Aloni (2001))

(29) Tengo que quedar con algún profesor. # Se llama Bob Smith.

'I have to meet some professor or other. # His name is Bob Smith'.

(Giannakidou and Quer, 2013).

ostension (salient) >higher than naming (available) >higher than description

- Prediction (29) should be good in (28).
- Intuition (29) is bad in (28). [Prediction not met]

Part 2: Ostension is not Impossible

- Recall: A & P predict that *algún* is out when the speaker can identify by ostension.
- Algún is not always incompatible with pointing.

Clear Vision: Expected

- (30) P looks out of the window and sees María kissing a boy. P hasn't seen the boy before, but she can see him very clearly now.
- (31) # ¡Mira! ¡María está besando a algún chico! Look! María is kissing A ALGÚN boy!
- Prediction: P should not be able to utter (31).
 Intuition: P cannot felicitously utter (31). [Prediction met]

Blurry Vision: Unexpected

- (32) P looks out of the window and sees María kissing a boy. María and the boy are far away, and P cannot make out the boy's features.
- (33) ¡Mira! ¡María está besando a algún chico! Look! María is kissing A ALGÚN boy
 - Prediction: P should not be able to utter (33).
- Intuition: P can felicitously utter (33). [Prediction not met]

Not Only in Spanish: Sinhala

- Slade (2015) on the Sinhala epistemic indefinite wh-hari.
- (34) infelicitous when the person dancing is in full view.
 - (34) Kauru hari mese uda natanava.
 wh HARI table on dance-pres
 'Someone is dancing on the table.' (Slade, 2015)

Not Only in Spanish: Sinhala

- (35) felicitous in the context in (36).
 - (35) Kauru hari mese uda natanava.
 wh HARI table on dance-pres
 'Someone is dancing on the table.'
 - (36) "The speaker is walking down a long hallway with his friend Chitra. At the far end of the hallway there is an open door. Through the open door the speaker can make out the shape of a humanoid figure dancing on a table, but can not see the figure clearly the speaker cannot, for instance, even determine whether the person is a male or female, or make out any distinguishing features." ' (Slade, 2015)

Upshot

- 1. *Algún* does not seem to be sensitive to what method of identification is salient in the context (cf. Giannakidou and Quer 2013).
- 2. Ostension does not necessarily rule out algún.

A Modified Conceptual Cover Account?

- In the clear vision context, the speaker has access to a set of properties that (she believes) uniquely identifies the witness: a description.
- In the blurry vision context, the speaker can only identify by ostension.
- What if we say...
 - 1. *Algún* blocks identification by naming and description (regardless of the context).
 - 2. Algún allows identification by pointing.
- Still some problems...

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Co-variation Cases

- (37) Todos los profesores están bailando con algún All the professors are dancing with ALGÚN estudiante. student
- The claim that co-variation cases pose a challenge to the Conceptual Cover Approach was made by Alonso-Ovalle and Shimoyama (2014), based on observations by Fox (2007) about the free choice component of disjunction. Alonso-Ovalle and Menéndez-Benito forthcoming discuss the modified conceptual cover account sketched above.

Co-variation: Prediction

- (38) Todos los profesores están bailando con algún All the professors are dancing with ALGÚN estudiante. student
- For every professor *x*:
 - there is a *c* in *CC* such that in all *w* compatible with what the speaker believes in *w*₀, *c*(*w*) is a student and *x* is dancing with *c*(*w*)
- *CC* cannot be naming or description.

Identifying by Description

- (39) Todos los profesores están bailando con algún All the professors are dancing with ALGÚN estudiante. student
- Scenario: Each student in the department comes from a different country. The speaker knows that professor Smith is dancing with the student from Italy, professor Jones is dancing with the student from France, and professor Peters is dancing with the student from Spain.
- Prediction: The speaker should not be able to utter (39).
- Intuition: (39) is felicitous in this context. [Prediction not met]

Identifying by Naming

- (40) Todos los profesores están bailando con algún All the professors are dancing with ALGÚN estudiante. student
- Scenario: The speaker knows that professor Smith is dancing with Anna, professor Jones is dancing with John, and professor Peters is dancing with Lester.
- Prediction: The speaker should not be able to utter (40).
- Intuition: (40) is felicitous in this context. [Prediction not met]

Upshot

- The conceptual cover approach (modified or not) imposes restrictions on how the speaker can identify the witness(es).
- No such restrictions are in place when the witnesses co-vary with the values of a variable quantified over by a universal.

Taking Stock

- The *CC* approach teaches us that to characterize the epistemic effect we need to talk about ways of identifying.
- But it cannot account for co-variation contexts and it assumes identificational constraints that do not capture the type of ignorance expressed by *algún*
- The implicature account gives us a straightforward way to capture the lack of ignorance in co-variation contexts.
- But it does not address the issue of what it means to know who.

Further Work

- See Alonso-Ovalle and Menéndez-Benito forthcoming for further discussion of the constraints imposed by *algún*, and for an attempt to extend the implicature approach to account for those constraints.
- (Email me if you want to see the pre-publication version).

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