Modal Indefinites

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Roadmap

Pressing Issues

- Two pressing issues regarding epistemic indefinites:
  1. Characterising the type of modality: How can we characterise and derive the evidential restrictions epistemic indefinites impose?
  2. Interaction with modals.

Today

- Moving on to random choice indefinites.
- A discussion of Spanish *uno cualquiera* that focuses on
  1. Type of modality
  2. Interaction with modals.

Alonso-Ovalle and Menéndez-Benito 2013, forthcoming, submitted.

Random Choice Indefinites

- Existential items that signal that an agent made an indiscriminate choice.

Random Choice Indefinites: A Family

Spanish *uno cualquiera*
German *irgendein*
Korean *-na* indeterminates
Italian *uno qualsiasi* and *un qualunque*
Romanian *un oarecare*
...

(Choi 2007; Kim and Kaufmann 2007; Choi and Romero 2008; Rivero 2011a,b; Alonso-Ovalle and Menéndez-Benito 2011, 2013, forthcoming; Chierchia 2013; Fălăuş 2015, 2014, a.o.)

- Still less studied than epistemic indefinites.

A Case Study: Spanish *uno cualquiera*

(1) Juan compró un libro cualquiera.
Juan bought a book CUALQUIERA
'Juan bought a random book.'

- $\rightsquigarrow$ Existential Component: Juan bought a book.
- $\rightsquigarrow$ Modal Component: Juan chose indiscriminately.

- Evokes alternative, non-actual, actions that Juan could have undertaken.

Roadmap

Roadmap

The Pieces

(2) [**un** [libro [**cualquiera**]]]

(3) Juan compró **un** libro.
Juan bought a book

(4) Juan puede comprar **cualquier** libro.
Juan can buy any book

- We will not investigate the individual contributions of *un* and *cualquiera* in cases like (2).

An Additional Reading

(5) Juan compró **un** libro **cualquiera**.
Juan bought a book cualquiera

1. Random choice reading:

   Juan bought a book and his choice was indiscriminate.

2. Evaluative reading:

   Juan bought an unremarkable book.

Scenario 1

(6) Juan went to the bookstore. He wanted to buy *The Unbearable Lightness of Being*, and did so. I don't think this book is special in any way.

(7) Juan compró un libro cualquiera.
Juan bought a book CUALQUIERA

- Evaluative reading: true.
- Random choice reading: false.

Scenario 2

(8) Juan went to the bookstore, and picked a book at random. The book turned out to be *The Unbearable Lightness of Being*. I think this book is remarkable.

(9) Juan compró un libro cualquiera.
Juan bought a book CUALQUIERA

- Random choice reading: true.
- Evaluative reading: false.

Today's Lecture

- Working assumption: *uno cualquiera* is ambiguous between the evaluative and the random choice readings.
- Today's focus: we will focus on the random choice reading.

Roadmap

Distributional Restrictions

- The random choice reading has distributional restrictions linked to agentivity (Choi and Romero, 2008).

Blocking RC: Non Volitional Agents

- Choi and Romero (2008): the random choice reading requires a volitional agent.

(10) Ayer Juan tropezó con un objeto cualquiera.
yesterday Juan stumbled with an object CUALQUIERA
'Yesterday, Juan stumbled on an unremarkable object.'
(Choi and Romero 2008, 78, our translation)

Blocking RC: Non Volitional Agents

(11) El panadero rompió un molde cualquiera.
the baker broke a baking pan CUALQUIERA
'The baker broke a random baking pan.'

(Random choice reading available)

(12) La levadura rompió un molde cualquiera.
the yeast broke a baking pan CUALQUIERA
'The yeast broke an unremarkable baking pan.'

(Only evaluative reading)

Blocking RC: Subject Position

(13) Habló un estudiante cualquiera.
spoke a student CUALQUIERA
'An unremarkable student spoke'.

- Only the evaluative reading is available.

Roadmap

Interaction with Modals

- We have seen that (some) modal indefinites interact differently with different types of modals.
- *Uno cualquiera* displays yet another pattern of interaction.

Modal Harmony and Modal Selectivity

- Modal Harmony. Under some modals, *uno cualquiera* can have a harmonic reading: free choice effect with respect to the worlds introduced by the modal.
- Modal Selectivity: Other modals allow only for an embedded random choice reading.

Case 1: Harmonic Reading Possible

(14) ¡Tráeme un libro cualquiera!
Bring-me a book CUALQUIERA

- ⇝ Harmonic Reading: You have to bring me a book, and you are allowed to choose any book.
- ℹ Assuming that imperatives are modals (Kaufmann, 2012)

Harmonic Reading

(15) I want Juan to bring me a book to read on the train, and I don't care which one he brings me. I know that Juan will never choose a book at random (he is very serious about his reading advice) and I am fine with that.

(16) ¡Juan, tráeme un libro cualquiera!
Juan, bring-me a book CUALQUIERA

- Intuition: (16) is acceptable in this scenario.
- Not a request to choose indiscriminately.
- Gives the addressee permission to choose whatever book he wants.

Case 2: Harmonic Reading Blocked

(17) Según lo que sabemos, Juan tiene que haber ido a
Given what we-know, Juan must have gone to
ver una película cualquiera.
see UNA film CUALQUIERA
'Given what we know, Juan must have gone to see a random movie.'

- $\rightsquigarrow$ Embedded Random Choice: Given what we know, Juan must have gone to see a movie and picked it randomly.
- $\not\rightsquigarrow$ Unattested Harmonic Reading: Given what we know, Juan must have gone to see a movie, he might have seen any.

No Harmonic Reading

(18) We have evidence that Juan went to the movies (we found a ticket in his coat's pocket), but we don't know what movie he saw. We are sure that Juan selected the movie carefully – he always makes informed decisions, reading countless reviews before picking a movie.

(19) Según lo que sabemos, Juan tiene que haber ido a
Given what we-know, Juan must have gone to
ver una película cualquiera.
see UNA film CUALQUIERA
'Given what we know, Juan must have gone to see a random movie.'

- Intuition: (19) cannot felicitously describe the situation.

Roadmap

Questions

Random Choice

- What type of modality does the random choice interpretation convey?
- How does this modality come about compositionally?
- How to derive the distributional restrictions?

Modal Harmony

- How are harmonic interpretations derived?

Modal Selectivity

- Why are harmonic interpretations available only with some modals?

Today

- What kind of modality does the random choice interpretation convey?

Roadmap

Preview

- Assessing the counterfactual account in Choi 2007, Choi and Romero 2008.
- Exploring the possibility that *uno cualquiera* expresses goal-oriented modality

Roadmap

Background

- Choi (2007) puts forward a counterfactual analysis of Korean random choice indefinites, which builds on the account of *whatever* proposed in von Fintel 2000.
- Coming up next: summarizing von Fintel 2000.

Basic Intuition: von Fintel 2000

(20) Zach simply voted for whoever was at the top of the ballot. (von Fintel, 2000)

- Zach voted for the person that was at the top of the ballot, and if a different person had been at the top of the ballot, Zach would have voted for that person.

Capturing the Intuition: von Fintel 2000

(21) Zach simply voted for whoever was at the top of the ballot.

- Asserts: Zach voted for the individual at the top of the ballot in w_0.
- Presupposes: In all the worlds w in which someone different is at the top of the ballot and that are otherwise minimally different from w_0, Zach voted for that person in w iff he voted for the person at the top of the ballot in w_0.

Extension to RC Indefinites

- Choi (2007): the random choice component of Korean *-na* indefinites is a counterfactual presupposition.
- Choi and Romero (2008) apply this account to *uno cualquiera*.
- Alonso-Ovalle and Menéndez-Benito (2011): the RC component of *uno cualquiera* is not presuppositional.
- I will evaluate a version of Choi's account where the counterfactual component is part of the truth conditions.

Basic Intuition

(22) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- Juan took a card and he would have taken a card regardless of what cards were available.

Capturing the Intuition

(23) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- Existential claim: Juan took a card in w_0.
- Modal claim: In all the closest w where the set of cards differs from the set of cards in w_0, Juan took a card as well.

Assessing the Counterfactual Account

- Coming up next: two problems for the counterfactual account.

Problem 1: Subject Position

(24) Habló un estudiante cualquiera.
spoke a student CUALQUIERA

- Predicted reading: A student spoke, and if there had been different students, a student would have spoken as well.
- Not attested: (24) only has the evaluative reading (a student spoke, and, according to the speaker, this student is unremarkable).

Problem 1: Subject Position

(25) When grading, Professor Smith always gives an A+ to exactly one student. Each Monday, the student with an A+ in the last homework has to present his answers. This time, Perfecto got an A+, and presented.

(26) Habló un estudiante cualquiera.
spoke a student CUALQUIERA

- Intuition: (26) is false.
- Prediction: (26) is true.
- If the set of students had been different, a student would have spoken as well.

Problem 2: Object Position

(27) As a rule, Juan the gambler will only pick a card if he is playing with his own cards, and if the deck has all 52 cards. This time, the condition was met. Juan picked a card at random.

(28) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- Intuition: (28) is true.
- Prediction: (28) is false.
- Juan would not have picked a card if the set of cards had been different: the counterfactual claim is not satisfied.

Upshot

- (29) only has the evaluative reading: something else would need to be said to block the counterfactual reading here.

  (29) Habló un estudiante cualquiera.
  spoke a student CUALQUIERA

- The counterfactual paraphrase does not capture the random choice effect of (30) (gambler example).

  (30) Juan cogió una carta cualquiera.
  Juan took a card CUALQUIERA

Roadmap

Goals

- Chierchia (2013) suggests in passing that the modal domain of Italian *uno qualsiasi* is the set of worlds compatible with the agent's goals.
- Next on: discussing that possibility.
- The outcome of the discussion will be that a goal-oriented account needs to be suitably constrained so as to take into consideration what the agent knows and what she can do.

Roadmap

A Goal Account, First Pass

(31) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

1. Existential claim:

   There is an actual event *e* of Juan taking a card.

2. Modal component:

   For every (relevant) card *y* in w_0,
   there is a world *w* where Juan's goals at the preparatory stage of *e* are satisfied and Juan takes *y* in *w*.

The Cards Scenario 1

(32) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- There are several cards in front of Juan. Juan takes the *A*♠, but any other card would have been fine with him.
- Intuition: (32) is true.

Prediction: (32) is true.

The Cards Scenario 2

(33) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- There are several cards in front of Juan. Juan wants to take the $A\spadesuit$, and he does so.
- Intuition: (33) is false.


Prediction: (33) is false.

Problem: The Cards Scenario 3

- There are two face-down cards in front of Juan.
- Juan knows that one is the $A\spadesuit$ and the other is the $Q\heartsuit$.
- Juan knows that the $A\spadesuit$ is the winning card.
- He wants to take the $A\spadesuit$, but he does not know whether the $A\spadesuit$ is the card on the right or the card on the left.
- He takes a card at random.

(Based on a scenario in Aloni 2001)

Wrong Truth Conditions

(34) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- Intuition: true.

☞ Prediction: false.

- In all the worlds where J's goals are satisfied he takes the *A*♠.

Roadmap

A Goal Account, Second Pass

- There is a way of identifying cards under which all cards *are* compatible with Juan's goals.
- Given what he knows, he does not have a preference between the card on the left and the card on the right.
- Can the goal-oriented account deal with the cards scenario if we factor in agent's knowledge and identification methods?
- Next up: exploring this possibility.

Background: Aloni 2001

- Knowledge is sensitive to identification methods.
- (35) is true in the cards face-down scenario if cards are identified by their suit; false if they are identified by their position.

(35) John knows which card is the winning card.

Conceptual Covers

- Aloni (2001) models methods of identification as conceptual covers.
- A conceptual cover *CC* is a set of individual concepts such that in each *w*, every concept in *CC* is true of one individual and every individual instantiates one concept in *CC*.

Conceptual Covers

- Salient covers in the card scenario:

(36) $\{\lambda w.\iota x.\text{C-ON-LEFT}_w(x),\ \lambda w.\iota x.\text{C-ON-RIGHT}_w(x)\}$

(37) $\{\lambda w.A\spadesuit, \lambda w.Q\heartsuit\}$

(38) $\{\lambda w.\iota x.\text{WINNING-C}_w(x), \lambda w.\iota x.\text{LOSING-C}_w(x)\}$

Goals Relative to a Cover

(39) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- Existential component: Juan took a card in w_0.
- Modal component: For every concept *c* in *CC*, there is a world *w* compatible with what Juan knows and that is best with respect to Juan's goals where Juan takes $c(w)$.
- Where *CC* is a salient cover.

Right Prediction

- For every concept c in CC, there is a world w compatible with what Juan knows and that is best with respect to Juan's goals where Juan takes $c(w)$.
- If CC is (40), our sentence comes out true, as desired.

(40) $\{\lambda w.\iota x.\text{LEFT}_w(x), \lambda w.\iota x.\text{RIGHT}_w(x)\}$

Right Prediction

- Worlds compatible with what Juan knows:

  (41) Type 1 worlds: Q♡ A♠
  Type 2 worlds: A♠ Q♡

- Type 1 worlds that are best with respect to Juan's goals are those where he takes the card on the right.
- Type 2 worlds that are best with respect to Juan's goals are those where he takes the card on the left.

Wrong Prediction

- For every concept *c* in *CC*, there is a world *w* compatible with what Juan knows and that is best with respect to Juan's goals where Juan takes *c*(*w*).
- If *CC* is (42), our sentence comes out as false.

(42) $\{\lambda w.A\spadesuit, \lambda w.Q\heartsuit\}$

Upshot

- Making goals relative to a cover would predict a flip-flop effect for (43) in the cards scenario (cf. (44)).

  (43) Juan cogió una carta cualquiera.
  Juan took a card CUALQUIERA

  (44) Juan knows which card is the winning card.

- But (43) is unambiguously true in that scenario.
- We would need a way to force the sentence to be interpreted with respect to a particular cover.
- It is unclear how this could be done.

Roadmap

The Miners' Puzzle

- The challenge presented by the cards face down scenario is reminiscent of the Miners' Puzzle for deontic modality.

ℹ Kolodny and MacFarlane 2010; Charlow 2013, 2014; Cariani *et al.* 2013.

The Miners' Puzzle

- Ten miners are trapped either in shaft A or in shaft B, but we do not know which. Flood waters threaten to flood the shafts. We have enough sandbags to block one shaft, but not both. If we block one shaft, all the water will go into the other shaft, killing any miners inside it. If we block neither shaft, both shafts will fill halfway with water, and just one miner, the lowest in the shaft, will be killed.

  (Kolodny and MacFarlane, 2010)

  (45) We ought to block neither shaft.

- (45) intuitively true in the scenario.

The Moral: Not all Goals Count

- Blocking the shaft the miners are in would be the optimal action, but since we don't know where the miners are, the best we can do is block no shaft.
- To determine the obligations that are relevant for the interpretation of *ought* we have to take into account what the agent can do, given the information she has.
- The cards face down scenario shows something similar is true for *uno cualquiera*.
  - The agent wanted to take a particular card — the $A\spadesuit$.
  - But, if he is rational, he could not decide to take the $A\spadesuit$, because he does not know how to proceed to do so.

The Moral: Not all Goals Count

- Charlow (2013): *ought* is evaluated with respect to a particular type of goals, *actionable goals* (see also von Fintel and Iatridou 2008; Rubinstein 2012).
- Our account of *uno cualquiera* takes the same line: only a particular type of goals are used to determine the modal domain of *uno cualquiera*.

Basic Idea

(46) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- The modal domain is determined by a particular goal associated with the agent's decision to pick a card.
- To determine what that goal is we have to take into account more than just the agent's preferences.

Assumptions

- Any volitional event is caused by a decision on the part of its agent.
- Eventualities are linguistically decomposable into stages (Parsons, 1990; Smith, 1990; Kamp and Reyle, 1993)

(47) Preparatory stage . . . Inner Stage . . . End point . . . Result stage.
(Grano, 2011)

- The decision that triggers an event e (d_e) is part of the preparatory stage of e (see Grano 2011).

Decisions and Goals

- A decision to act is associated with an action goal.
- An action goal corresponds to the (type of) action the agent intends to undertake.
- We will model the action goal of a decision d as a property of events that share their agent with the agent of d.
- If Sarah decides to smoke, her action goal will be

(48) $\lambda e.\exists w[\text{SMOKE}_w(e)\&\ \text{AGENT} = s]$

What Goals Count

- If the agent is rational, her action goal will contain events that satisfy her desires.
- But there are cases where the agent cannot decide to act upon a particular goal because she does not know how to bring about this goal.
- I cannot decide to solve a quadratic equation if I do not know how to solve a quadratic equation.

What Goals Count

- Some conditions that a set of possible events G has to satisfy to be an action goal associated with a decision d_e:
  1. The agent of d_e wants to bring about a G-event.
  2. The agent of d_e knows how to bring about a G-event.

- Not only the preferences of the agent of d_e count.

ℹ Roberts (2009) on rational goals.

Modal Domain

- Claim: the modal domain of *uno cualquiera* consists of worlds where there is an event that fulfils the agent's decision ('worlds compatible with the decision').

Modal Domain

- Suppose that John decided to buy *War and Peace*. An event *e* fulfills his decision in a world *w* only if in *w*
  1. He took the same decision, and
  2. that decision is located at the preparatory stage of *e*, and
  3. *e* is an event of Juan's buying *War and Peace* (= *e* belongs to J's action goal).
- Worlds compatible with Juan's decision: those where Juan took exactly the same decision, which 'developed into' an event of him buying *War and Peace*.

Modal Domain

(49) a. *Fulfillment.* An event *e* fulfils a decision *d* in a world *w* whenever *w* contains a decision dup_d that is a duplicate of *d*, dup_d is part of *e*, and *e* is in *d*'s action goal.

b. *Worlds compatible with a decision d.* The set of worlds compatible with a decision *d* are the worlds where there is an event that fulfils *d*.

Truth Conditions

(50) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

1. Existential claim:

   There is an actual event e of Juan taking a card x, and

2. Modal component:

   For every (relevant) card y in w_0, there is a world w compatible with d_e where d_e is fulfilled by an event e' of Juan taking y

Back to the Cards Scenario

- There are two face-down cards in front of Juan.
- Juan knows that one is the $A\spadesuit$ and the other is the $Q\heartsuit$.
- Juan knows that the $A\spadesuit$ is the winning card.
- He wants to take the $A\spadesuit$, but he does not know whether the $A\spadesuit$ is the card on the right or the card on the left.
- He takes a card at random.

(Based on a scenario in Aloni (2001))

Predictions?

(51) Juan cogió una carta cualquiera.
Juan took a card CUALQUIERA

- Recall: intuitively true in the cards scenario
- Is the sentence predicted to be true?
  1. The existential condition is satisfied: Juan took a card.
  2. What about the modal component?

The Modal Component

1. For every (relevant) card y in w_0, there is a world w compatible with d_e,
2. where d_e is fulfilled by an event e' of Juan taking y.

- e' can only fulfil d_e iff it belongs to d_e's action goal.
- What is Juan's action goal in the scenario?

Not the Queen

(52) $\lambda e.\exists w[\text{TAKE}_w(Q\heartsuit)(e)\ \&\ \text{AGENT}(e) = j]$

(the set of possible events of Juan taking the $Q\heartsuit$)

- (52) is not Juan's action goal.
- Juan didn't want to take the $Q\heartsuit$.

Not the Ace

(53) $\lambda e.\exists w[\textsc{take}_w(A\spadesuit)(e)\ \&\ \textsc{Agent}(e) = j]$

(the set of possible events of Juan taking the $A\spadesuit$)

- (53) is not Juan's action goal.
- Even though Juan wanted to take the $A\spadesuit$, he did not know how.

Taking a Card

(54) $\lambda e.\exists w' \exists x[\text{CARD}_w(x) \;\&\; \text{TAKE}_{w'}(x)(e) \;\&\; \text{AG}(e) = j]$

- Given what Juan wanted, what he knew, and what he could do, (54) can be Juan's action goal.
- Intuitively, Juan wanted to take the ace, but all he could *decide* was to take a card (and hope for the best).

Any Card

(55) $\lambda e.\exists w'\exists x[\text{CARD}_w(x)\ \&\ \text{TAKE}_{w'}(x)(e)\ \&\ \text{AG}(e) = j]$

- There are w' where Juan taking the $A\spadesuit$ fulfills J's decision,
- There are w' where Juan taking the $Q\heartsuit$ fulfills J's decision.

$\rightsquigarrow$ For every actual card in the domain, there is an accessible world where Juan takes that card.

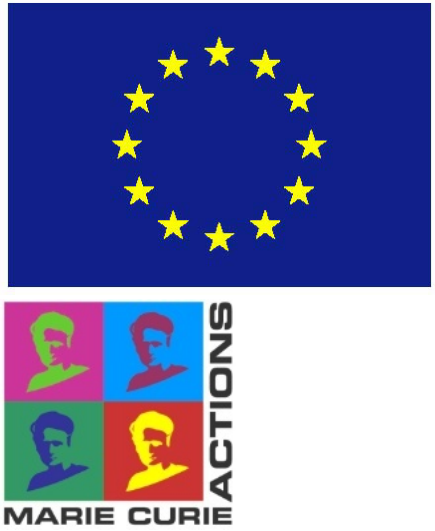
$\rightsquigarrow$ Target sentence correctly predicted to be true.

Tomorrow

1. Implementing the proposal.
2. Accounting for the distribution of the random choice reading.
3. Exploring the interaction with modals.

- The slides for this course are heavily based on a number of joint presentations with Luis Alonso Ovalle.

Funding



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References I

ALONI, Maria (2001). *Quantification under Conceptual Covers*. Ph.D. thesis, University of Amsterdam.

ALONSO-OVALLE, Luis and MENÉNDEZ-BENITO, Paula (2011). Expressing Indifference: Spanish *Un NP Cualquiera*. In Michael Ashton *et al.* (ed.), *Proceedings of the 21st Semantics and Linguistic Theory Conference*. Ithaca, NY: Cornell University.

ALONSO-OVALLE, Luis and MENÉNDEZ-BENITO, Paula (2013). Random Choice Modality: Spanish *Uno Cualquiera*. In Emmanuel Chemla, Vincent Homer, and Grégoire Winterstein (eds.), *Proceedings of Sinn und Bedeutung 17*.
URL `http://semanticsarchive.net/sub2012/`

ALONSO-OVALLE, Luis and MENÉNDEZ-BENITO, Paula (forthcoming). Modal Selectivity in the Nominal Domain: Spanish *uno cualquiera*. In *the Proceedings of the 46th Meeting of the North East Linguistics Society*.

ALONSO-OVALLE, Luis and MENÉNDEZ-BENITO, Paula (Submitted). Probing into Random Choice Modality: Spanish *Uno Cualquiera*. Submitted manuscript.

References II

CARIANI, Fabrizio, KAUFMANN, Magdalena, and KAUFMANN, Stefan (2013). Deliberative Modality under Epistemic Uncertainty. *Linguistics and Philosophy*, 36(3):225–259.

CHARLOW, Nate (2013). What we Know and What to Do. *Synthese*, 190:2291–2323.

CHARLOW, Nate (2014). The Meaning of Imperatives. *Philosophy Compass*, 9:540–555.

CHIERCHIA, Gennaro (2013). *Logic in Grammar*. Oxford: Oxford University Press.

CHOI, Jinyoung (2007). *Free Choice and Negative Polarity: A Compositional analysis of Korean polarity sensitive items*. Ph.D. thesis, University of Pennsylvania.

CHOI, Jinyoung and ROMERO, Maribel (2008). Rescuing Existential Free Choice Items in Episodic Sentences. In O. Bonami and P. Cabredo Hoffner (eds.), *Empirical Issues in Syntax and Semantics*, vol. 7. 77–98.

VON FINTEL, Kai (2000). Conditional Strenghtening. Ms. MITS.

References III

VON FINTEL, Kai and IATRIDOU, Sabine (2008). How to Say 'Ought' in Foreign: the Composition of Weak Necessity Modals. In Jacqueline Guéron and Jacqueline Lecarme (eds.), *Time and Modality*. Springer, 115–141.

FĂLĂUŞ, Anamaria (2014). (Partially) Free Choice of Alternatives. *Linguistics and Philosophy*, 37(2):121–173.

FĂLĂUŞ, Anamaria (2015). Romanian Epistemic Indefinites. In Luis Alonso-Ovalle and Paula Menéndez Benito (eds.), *Epistemic Indefinites*. Oxford University Press, 60–81.

GRANO, Thomas (2011). Mental Action and Event Structure in the Semantics of 'Try'. In Neil Ashton, Anca Chereches, and David Lutz (eds.), *Proceedings of the the 21st Semantics and Linguistic Theory Conference*. Ithaca, NY: Cornell University.

KAMP, Hans and REYLE, Uwe (1993). *From Discourse to Logic: Introduction to Model-theoretic Semantics of Natural Language, Formal Logic amd Discourse Representation Theory*. Dordrecht: Kluwer.

KAUFMANN, Magdalena (2012). *Interpreting Imperatives*. Springer.

References IV

KIM, Min-Joo and KAUFMANN, Stefan (2007). Domain Restriction in Freedom of Choice: A View from Korean *indet-na* Items. In Estela Puig-Waldmüller (ed.), *Proceedings of Sinn und Bedeutung*. Barcelona: Universitat Pompeu Fabra.

KOLODNY, Niko and MACFARLANE, John (2010). Ifs and Oughts. *Journal of Philosophy*, 107:115–143.

PARSONS, Terence (1990). *Events in the Semantics of English: A Study of Subatomic Semantics*. Cambridge: MIT Press.

RIVERO, María Luisa (2011a). *Cualquiera* Posnominal: Un Desconocido *Cualquiera*. *Cuadernos de la Asociación de Lingüística y Filología de la América Latina*, 3:60–80.

RIVERO, María Luisa (2011b). Un desconocido *cualquiera*. In Escandell Vidal, M. M, Leonetti, and C. Sánchez López (eds.), *Problemas de Gramática*. Madrid: Editorial Akal, 54–61.

ROBERTS, Craige (2009). *Know-How*: A Compositional Approach. In Erhard Hinrichs and John Nerbone (eds.), *Theory and Evidence in Semantics*. CSLI, 183–213.

RUBINSTEIN, Aynat (2012). *Roots of Modality*. Ph.D. thesis, University of Massachusetts Amherst, Amherst, MA.

References V

SMITH, Carlota (1990). *The Parameter of Aspect*. Dordrecht: Kluwer Academic Publishers.