

Past counterfactuality in Spanish imperatives

(talk formerly advertised as “Revisiting Spanish retrospective imperatives”)

Luis Vicente
Universität Potsdam
vicente@uni-potsdam.de

March 18, 2010

1 Introduction

Spanish offers two ways of expressing past counterfactual necessity.

- (1) *A modal counterfactual*
¡Deberías haber cogido el metro!
you.should have taken the subway
“You should have taken the subway!”
- (2) *A perfective root infinitive*
¡Haber cogido el metro!
have.INF taken the subway
“You should have taken the subway!”

A note on terminology Examples like (2) have been called

1. *retrospective imperatives* (RIs, [Bosque 1980](#))
2. *haber + participle clauses* (HPCs, [Biezma-Garrido to appear, in progress](#))

I adopt Bosque’s label, given that I’ll be arguing (*contra* Biezma-Garrido) that these examples are imperatives in a non-trivial sense.

Meaning For both modal counterfactuals and RIs, it can be expressed as follows:

- (3) *Formal semantics (adapted from [Condoravdi 2002:63](#))*
[*deberías haber p*] and [*haber p*] are true at $\langle w, t \rangle$ iff there exists w', t', t'' such that $t' \prec t$, $w' \in MB(w, t')$, $t' \prec t''$, and p is true at $\langle w', t'' \rangle$.
- (4) *A prose paraphrase of (3)*
 - a. the actual world is a world where the proposition p in [*deberías haber p*] or [*haber p*] does not hold –i.e., the actual world is a $\neg p$ world;
 - b. the actual world is only one of the possible future worlds (metaphysical alternatives) that were accessible from some point in our past. Some of those alternatives are $\neg p$ worlds like ours, but others are p worlds.
 - c. the p worlds are better than the $\neg p$ worlds (where “better” means “higher-ranked according to the pertinent ordering source”).

Question for today:

How do we get this meaning out of the available morphosyntactic components?

The way things are going to work:

1. Past counterfactuality requires the presence of two layers of morphological past (*pace Iatridou (2000)* and others).
2. RIs provide one visible layer of past (the perfect), but there is no plausible source for the required second layer.
3. Past counterfactuality in RIs arises from the interaction of perfectivity with a semantics for imperatives along the lines of *Portner (2005, 2007)*.

2 Counterfactuality through past morphology?

2.1 Counterfactuality and the past

General theory *Iatridou (2000)*, and after her *Nevins (2002)*, *Hacquard (2006)*, and *von Stechow and Iatridou (2008)*, argue that past tense and counterfactuality are inherently related. Specifically, *Iatridou (2000:246)* formalizes this intuition by proposing that past morphology introduces what she calls an *exclusion feature* (ExclF).

(5) *Exclusion feature*

$T(x)$ excludes $C(x)$, where

- a. $T(x)$ stands for *Topic(x)*, “the x that we are talking about”.
- b. $C(x)$ stands for “the x that, for all we know, is the x of the speaker”.

The important part is that x can range over times or worlds. When it ranges over times, it gives us the meaning of past tense (note that this requires us to assume that the future is not really a tense, but rather a modal; this much seems correct –see *Copley 2002* and references).

(6) *ExclF and times*

- a. $T(t)$ is the topic time, the time interval that we are talking about.
- b. $C(t)$ is the utterance time.
- c. The topic time excludes the utterance time.

When x ranges over worlds, it derives counterfactuality.

(7) *ExclF and worlds*

- a. $T(w)$ are the topic worlds, the worlds that we are talking about.
- b. $C(w)$ is the actual world.
- c. The topic worlds exclude the actual world.

Normally, a sentence with one past morpheme has the one ExclF ranging over times, and therefore it is interpreted as past tense. However, if we force that one ExclF to range over worlds (e.g., by embedding it in a conditional antecedent), we have no ExclF left to range over times, and the sentence is interpreted as non-past.

- (8) a. I took_{ExclF(t)} the subway. [non-counterfactual past]
b. If I took_{ExclF(w)} the subway... [counterfactual non-past]

The only way of getting a past counterfactual reading is by using the pluperfect; this tense adds an additional ExclF that can be used to range over times.

- (9) If I had_{ExclF(w)} taken_{ExclF(t)} the subway... [past counterfactual]

If we remove the conditional from the last example (and, with it, the requirement that one ExclF range over worlds), then both ExclFs can range over times, and we get the actual pluperfect (past-of-the-past) semantics.

- (10) I had_{ExclF(t)} taken_{ExclF(t)} the subway [pluperfect, non-counterfactual]

Note that Iatridou doesn't supplement her analysis with a theory of why and when a given ExclF ranges over times or worlds (Arregui 2005:65). However, we need not worry about this shortcoming so long as we accept that past counterfactuality requires two layers of past.

Counterfactuality in Spanish we observe the same pattern, with the proviso that counterfactual conditionals require the subjunctive (this is because the subjunctive marks that the model of evaluation shifts away from the speaker's epistemic model –see Quer 1998, 2001).

- (11) a. Cogí_{ExclF(t)} el metro.
 I.took the subway
 "I took the subway" [non-counterfactual past]
- b. Si cogiera_{ExclF(w)} el metro.
 if I.took the subway
 "If I took the subway" [counterfactual non-past]
- c. Si hubiera_{ExclF(w)} cogido_{ExclF(t)} el metro.
 if I.had taken the subway
 "If I had taken the subway" [past counterfactual]
- d. Había_{ExclF(t)} cogido_{ExclF(t)} el metro.
 I.had taken the subway
 "I had taken the subway" [pluperfect, non-counterfactual]

2.2 Past counterfactuality in the modal construction

Iatridou's analysis can be easily applied to the modal construction: we have two past morphemes (one in the modal, one in the perfective infinitive), so we can have both Excl(w) and Excl(t) –that is, past counterfactuality.

- (12) ¡Deberías_{Excl(w)} haber cogido_{Excl(t)} el metro!
 you.should have taken the subway
 "You should have taken the subway!" [past counterfactual]

As expected, if we use a present tense for the modal, we lose one ExclF and we revert to a non-counterfactual past.

- (13) ¡Debes haber cogido_{Excl(t)} el metro!
 you.should have taken the subway
 "You must have taken the subway!" [non-counterfactual past]

2.3 Past counterfactuality in RIs

RIs are past counterfactual, therefore we would expect to find two independent past morphemes in them. However, in the examples above, we were working on the assumption that perfective infinitives only have one ExclF. One might want to postulate that infinitives in RIs have, exceptionally, two layers of past.

- (14) ¡Haber_{Excl(w)} cogido_{Excl(t)} el metro!
 have.INF taken the subway
 “You should have taken the subway!” [past counterfactual]

However, this is incorrect. Consider a perfective infinitive embedded under *estar contento* ‘to be happy’, which can take both finite and non-finite complements.

- (15) Estoy contento por haber aprobado_{ExclF(t)} el examen.
 I.am happy for have.INF passed the exam
 “I am happy because I have passed the exam” [present perfect]

This perfective infinitive can be paraphrased with a finite clause that contains a present perfect (one layer of past), but not with one that contains a pluperfect (two layers of past).

- (16) a. Estoy contento porque **he** aprobado_{ExclF(t)} el examen.
 I.am happy because have.1SG passed the exam
 “I am happy because I have passed the exam” [present perfect, =(15)]
 b. Estoy contento porque **había**_{ExclF(t)} aprobado_{ExclF(t)} el examen.
 I.am happy because I.had passed the exam
 “I am happy because I had passed the exam” [pluperfect, ≠(15)]

The only way in which the embedded perfective infinitive in (15) can give rise to a pluperfect reading is if the embedding finite verb is itself past. In this way, the finite verb contributes the second layer of past required by Iatridou’s system.

- (17) Estaba_{ExclF(t)} contento por haber aprobado_{ExclF(t)} el examen.
 I.was happy for have.INF passed the exam
 “I was happy because I had passed the exam” [pluperfect]

However, something like this is not possible in RIs: by virtue of being root structures, they only appear to have one layer of past, and therefore we shouldn’t expect them to have a past counterfactual reading.

- (18) ¡Haber cogido_{Excl(t)} el metro!
 have.INF taken the subway
 “You should have taken the subway!” [past counterfactual!!!]

Interim conclusions:

- We can use Iatridou’s (2000) system to derive the past counterfactual semantics of the modal counterfactual construction, because we have the required two past morphemes.
- However, we cannot use this system to derive the past counterfactual reading of RIs, because we are one past morpheme short.

3 RIs as a class of imperatives

3.1 Bosque's (1980) arguments for an imperative grammar

Argument #1: truth values Imperatives and RIs lack a truth value, and therefore cannot be replied to with *That's not true!*.

- (19) A: ¡Cierra la puerta!
close.IMP the door
B: # Eso no es cierto
that not is true
- (20) A: ¡Haber cerrado la puerta!
have.INF closed the door
B: # Eso no es cierto
that not is true

Argument #2: embedding Neither imperatives nor RIs can be embedded.

- (21) * ¡Creo que ven!
think.1SG that come.IMP
- (22) * ¡Creo que haber venido!
think.1SG that have.INF come

Argument #3: person restrictions Imperatives and RIs cannot have 1st person addressees (this is trivially true for plain imperatives because imperative morphology lacks 1st person morphemes).

- (23) * ¡Ven antes yo!
come.IMP earlier I
"I must arrive earlier!"
- (24) * ¡Haber venido antes yo!
have.INF.CL arrived earlier I
"I should have arrived earlier!"

Argument #4: subject focalization Imperatives and RIs require overt subjects to be focalized in the postverbal position.

- (25) a. ¡(* Tú / * TÚ) ven (* tú / ✓ TÚ)!
you you come.IMP you you
b. ¡(* Tú / * TÚ) haber venido (* tú / ✓ TÚ)!
you you have.INF come you you

Additional argument: coordination with a declarative Bolinger (1967) (see also Han 1998, Schwager 2005, Russell 2007) noted that an imperative can be conjoined with a plain declarative, such that the declarative is modally subordinated to the imperative (these are called IaDs, for *imperative and declarative*). RIs can be the first conjunct of an IaD too.

- (26) a. ¡Estudia duro y aprobarás el examen!
study.IMP hard and you.will.pass the exam
[= Study hard! If you do, you'll pass the exam.]
b. ¡Haber estudiado duro y habrías aprobado el examen!
have.INF studied hard and you.would.have passed the exam
[= You should have studied hard! If you had, you would have passed the exam]

Table 1: comparison of RIs and regular imperatives

	IMPTV's	RIs
<i>have a truth-value</i>	no	no
<i>can be embedded</i>	no	no
<i>can have 1st person subjs.</i>	no	no
<i>subjects must be in focus</i>	yes	yes
<i>can appear as 1st conj. of IaDs</i>	yes	yes

Generalization:

Retrospective imperatives are true imperatives, just like [Bosque \(1980\)](#) proposed.

3.2 Context of use (which will become important later on)

[Bosque \(1980:416-417\)](#) observes that RIs can only be used in contexts which imply that, in the past, the addressee had a choice between different courses of action. More specifically.

- After the addressee excuses himself trying to avoid a reprimand he deserves.

(27) A: Siento llegar tan tarde.
 I.regret arrive so late
 "I'm sorry I am so late"

B: ¡Haber salido antes de casa!
 have.INF left earlier from home
 "You should have left home earlier!"

- To suggest that the addressee has missed or failed to use a particular option in a previous situation.

(28) A: Ayer me encontré con María.
 yesterday CL I.encountered with María
 "Yesterday, I came across María"

B: ¡Haberla invitado a la fiesta!
 have.INF.CL invited to the party
 "You should have invited her to the party!"

- To express some kind of scolding for having or not having done something after the addressee's words suggest to the speaker that he is in some way responsible for it.

(29) A: Hay que ver lo mal que está el país.
 must that see the bad that is the country
 "I can't believe our country is doing so badly"

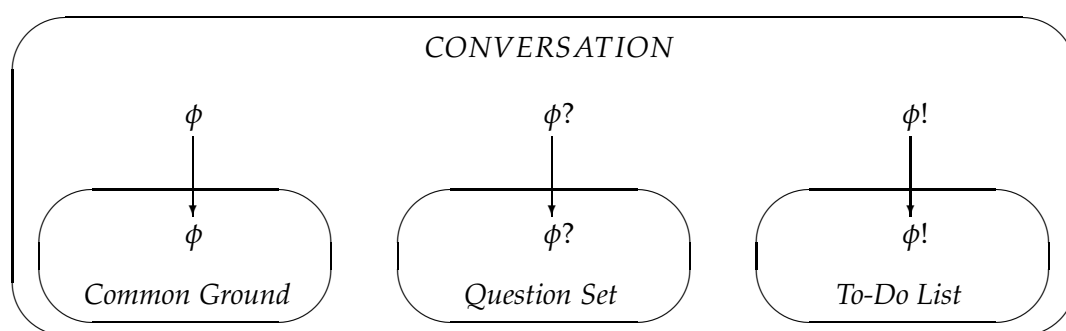
B: ¡No haber votado a UCD!
 no have.INF voted to UCD
 "You shouldn't have voted for UCD!"

4 A conspiracy theory of counterfactual imperatives

4.1 Imperative force through To-Do Lists

Portner (2005, 2007) proposes that imperatives are essentially update functions on a To-Do List associated with the addressee.

“Since Stalnaker (1978), we understand assertion as being the addition of a proposition to the Common Ground, the set of propositions mutually assumed by the participants in the conversation. [...] In parallel to the relationship between declaratives and the Common Ground, Ginzburg (1995a,b) and Roberts (1996) propose that interrogatives are associated with a Question Set. The questions in the Question Set are those which the participants in the conversation mutually agree to try to solve. [...] The conventional force of imperatives is to add the property denoted by the imperative to the addressee’s To-Do List.” [Portner (2007)]



What is the function of the To-Do List? The To-Do List acts as an ordering source for the possible worlds we can define on the basis of the propositions in the Common Ground.

“The Common Ground provides a background of ‘live possibilities’, possible worlds which could be actual as far as the participants in the interaction are concerned. The interaction proceeds against this space of possibilities. *An individual’s To-Do List then orders the possibilities compatible with the Common Ground, ranking some as preferable to others.*” [Portner (2005), with my emphasis]

More specifically, uttering an imperative clause ϕ_{imp} triggers the following sequence of processes (see section 4.4 for the formal implementation):

1. all participants in the conversation must choose a specific selection function h (where h can be deontic, bouletic, teleological, ...) and interpret ϕ_{imp} according to h .
2. update the addressee’s To-Do List by adding ϕ_{imp} to it.
3. update the Common Ground of the conversation by doing the following:
 - (a) define the set W of worlds accessible from the actual world, such that for every world w contained in W , ϕ is true in w .
 - (b) add W to the Common Ground.
 - (c) rank all the worlds in the Common Ground according to the chosen h , in such a way that the worlds in W are ranked higher than the worlds outside W .
4. whenever the actual world turns into one of the worlds in W through the actions of the addressee (i.e., when the addressee complies with the imperative), remove ϕ_{imp} from the addressee’s To-Do List (this is not in Portner’s analysis, but without something like this, imperatives would never be considered to have been complied with).

4.2 A regular imperative

Let's see how this works with a concrete example:

- (30) Take the subway!
1. Choose an appropriate selection function to interpret *Take the subway!*. For the sake of the argument, assume that this function is DEONTIC (see (34a) for a definition).
 2. Add DEONTIC(*Take the subway!*) to the addressee's To-Do List.
 3. Update the Common Ground by:
 - (a) define a set W of worlds accessible from the actual world, such that for every world w contained in W , the addressee's actions lead to him taking the subway in w .
 - (b) add W to the Common Ground.
 - (c) rank all the worlds in the Common Ground according to the DEONTIC selection function, in such a way that the worlds in W are ranked higher than the worlds outside W .
 4. Whenever the actual world turns into one of the worlds in W (i.e., a world where the addressee takes the subway), remove DEONTIC(*Take the subway!*) from the addressee's To-Do List.

4.3 A retrospective imperative

Assume that perfective aspect has the following semantics –i.e., the event in question ($\tau(e)$) is interpreted as having taken place in its entirety prior to a time t .

$$(31) \quad \llbracket \text{PERF} \rrbracket = \lambda P \lambda t \exists e [\tau(e) \subseteq t \wedge P(e)] \quad [\text{Klein (1994) et seq}]$$

Important assumption for this subsection: [$t = \text{now}$]. This is because here t is the Reichenbachian reference time. Aspect relates reference time to event time, so the perfect says that the event in question happened before the reference time. In order to locate the reference time wrt the utterance time, we need tense. Assume that, in the absence of a (morphological) specification to the contrary, utterance and reference time are the same (see Demirdache and Uribe-Etxebarria 2004 for a formal implementation). Since the utterance time is, by definition, the present, it follows that the reference time is also the present.

So, what happens when we try to add perfect aspect to the To-Do List?

(32) ¡Haber cogido el metro!
 have.INF taken the subway

1. Choose an appropriate selection function to interpret *Take the subway!*. For the sake of the argument, assume that this function is DEONTIC.
2. Add DEONTIC(*¡Haber cogido el metro!*) to the addressee's To-Do List. Since the imperative has perfective aspect, what we are actually saying is DEONTIC($\exists e[\tau(e) \subseteq t_{now} \wedge [\text{take the subway}](e)]$)
3. Update the Common Ground by:
 - (a) **this is how past counterfactuality arises:** define a set W of worlds accessible from the actual world, such that for every world w contained in W , the addressee has already taken the subway in w at the present time. Since the event in question has happened in the past, all the worlds in W must be metaphysical futures of a time in the past of the actual world. In other words, W contains only worlds in whose past the addressee took actions that resulted in him taking the subway.
 - i. Why are these worlds accessible? Here, "accessible" means "compatible with the contents of the Common Ground". Since we know (see §3.2) that, at one point in the past, the addressee had a specific choice in front of him (i.e., whether to use the subway), the metaphysical futures of that point become accessible.
 - ii. The actual world is excluded from W because otherwise, it results in a vacuous conversational move –i.e., if we know that the addressee actually took the subway, the imperative would be complied with, and we would have to remove it from the To-Do List as soon as we add it.
 - (b) add W to the Common Ground.
 - (c) rank all the worlds in the Common Ground according to the DEONTIC selection function, in such a way that the worlds in W are ranked higher than the worlds outside W .
4. DEONTIC(*Take the subway!*) should be removed from the addressee's To-Do List whenever the addressee succeeds in taking the subway prior to the present. However, since this does not happen in the actual world, the imperative remains in the To-Do List permanently.

Pragmatics of RIs Point 4 above deserves more comment, because RIs carry the implication that the speaker considers the addressee's past actions (or lack thereof) particularly unwise and reproachful (Biezma-Garrido to appear). Since the addressee is unable to comply with an RI, and given Portner's *Agent's Commitment* condition (35), the result is that we are effectively saying that the addressee is uncooperative or irrational.

4.4 Appendix: Portner's formalization of the system

(33) *Pragmatic function of imperatives*

The canonical discourse function of an imperative clause ϕ_{imp} in as follows:

- Intuitively, add $\llbracket \phi_{imp} \rrbracket$ to $T_{addressee}$ and $h(T_{addressee})$, where h is a contextually provided parametrized selection function.
- More precisely: where C is a context of the form $\langle CG, Q, T, h \rangle$:

- a. $C + \llbracket \phi_{imp} \rrbracket$ is defined iff the following condition is met:
 $\exists X' \forall w \in \cap CG [X' = h(w, T_{addressee})]$.
- b. Provided that it is defined, $C + \phi_{imp} = \langle CG', Q, T', h \rangle$, where:
 - i. $CG' = CG \cup \{w \in \cap CG : h(w, \{\llbracket \phi_{imp} \rrbracket\}) = \{\llbracket \phi_{imp} \rrbracket\}\}$.
 - ii. T' is just like T except that $T'_{addressee} = T_{addressee} \cup \{\llbracket \phi_{imp} \rrbracket\}$.

(34) *Parametrized selections functions*

A parametrized selection function h takes as its arguments n individuals, a world w and a set of properties or propositions S , and returns a subset of S . For example, for any individual x , world w , and set of propositions and properties Π :

- a. $DEONTIC_x(w, \Pi) = \left\{ y \in \Pi : \left[\begin{array}{l} y \text{ expresses an obligation of } x \text{ in } w \\ \text{or } y(x) \text{ expresses an obligation of } x \text{ in } w \end{array} \right] \right\}$
- b. $BOULETIC_x(w, \Pi) = \left\{ y \in \Pi : \left[\begin{array}{l} y \text{ expresses a desire of } x \text{ in } w \\ \text{or } y(x) \text{ expresses a desire of } x \text{ in } w \end{array} \right] \right\}$
- c. similarly for teleological, circumstantial...

(35) *Agent's commitment*

For any participant i , the participants in the conversation mutually agree to deem i 's actions rational and cooperative to the extent that those actions in world $w_1 \in \cap CG$ tend to make it more likely that there is no $w_2 \in \cap CG$ such that $w_1 <_i w_2$.

5 Conclusions

5.1 Past counterfactuality

The past counterfactual reading in imperatives does not require two layers of morphological past, as opposed to other past counterfactual constructions in the language (e.g., conditionals, infinitival adjunct clauses). Rather, it can be derived from a combination of:

1. an imperative analysis of RIs (Bosque 1980).
2. a theory of imperatives in terms of To-Do Lists (Portner 2005, 2007).
3. some pragmatic reasoning.

5.2 Known issues

3rd person addressees Both imperatives and RIs disallow 1st person addressees (see §3.1). However, Biezma-Garrido (to appear, in progress) observes that RIs occasionally allow 3rd person addresses (correcting Bosque's claim to the contrary), but plain imperatives never do. This does not follow from the analysis I've developed.

- (36) a. ¡Haz la tortilla (✓ tú /* él)!
 cook.IMP the omelet you he
- b. ¡Haber hecho la tortilla (✓ tú /% él)!
 have.INF cooked the omelet you he

Obligatory replies RIs are necessarily replies to a previous statement. They are infelicitous discourse-initial utterances, even if the context provides enough information to determine that various choices were available to the addressee in the past.

(37) *A non-reply RI (Biezma-Garrido to appear, ex. (14))*

Context: You are about to make your first soufflé and you would like John (soufflé expert) to help you, but you think he'll be away until next Tuesday. You decide not to wait and the result is a fiasco. Sarah, who knows all this, comes into the kitchen and sees the obviously unsuccessful soufflé. She tells you:

¡Haber hecho el soufflé el martes que viene!
have.INF made the soufflé the Tuesday that comes
“You should have made the soufflé next Tuesday!”

The analysis here predicts that RIs require the Common Ground to contain reference to a point in the past where various metaphysical alternatives were possible, but it doesn't predict that reference to this point should be this explicit.

Cross-linguistic extensions The analysis I have proposed looks pretty simple, which leads one to the expectation that RIs should be relatively common. However, this is not so: infinitive-based RIs are, as far as I know, only attested in Spanish. The closest counterparts I have found are Dutch and Syrian Arabic (both cited in [van der Wurff 2007](#)), which have finite RIs.

(38) a. Was toch thuisgebleven!
you.were PART home-stayed

“You should have stayed at home!”

[Dutch]

b. kənt ko'!
you.were eat.IMP

“You should have eaten!”

[Syrian Arabic]

I don't know what accounts for the crosslinguistic scarcity of RIs.

5.3 If you didn't like what I said...

Go check out [Biezma-Garrido's \(to appear, in progress\)](#) work on this topic, who proposes that RIs are equivalent to the English *if only* construction (e.g., “If only you had taken the subway...”).

References

- Arregui, Ana. 2005. On the accessibility of possible worlds: the role of tense and aspect. Doctoral dissertation, University of Massachusetts, Amherst.
- Biezma-Garrido, María. in progress. Anchoring pragmatics in syntax and semantics. Doctoral dissertation, University of Massachusetts, Amherst.
- Biezma-Garrido, María. to appear. Inverted antecedents in hidden conditionals. In *Proceedings of NELS 40*.
- Bolinger, Dwight. 1967. The imperative in English. In *To honor Roman Jakobson*, ed. Halle, Lunt, and MacLean, 335–362. The Hague: Mouton.
- Bosque, Ignacio. 1980. Retrospective imperatives. *Linguistic Inquiry* 11:415–419.

- Condoravdi, Cleo. 2002. Temporal interpretation of modals: modals for the present and for the past. In *The construction of meaning*, ed. Beaver, Kaufmann, Clark, and Casillas, 59–88. Stanford: CSLI Publications.
- Copley, Bridget. 2002. The semantics of the future. Doctoral dissertation, MIT.
- Demirdache, Hamida, and Myriam Uribe-Etxebarria. 2004. The syntax of time adverbials. In *The syntax of time*, ed. Guéron and Lecarme, 143–179. Cambridge: MIT Press.
- von Fintel, Kai, and Sabine Iatridou. 2008. How to say *ought* in foreign: the composition of weak necessity modals. In *Time and modality*, ed. Guéron and Lecarme, 115–141. Dordrecht: Springer.
- Ginzburg, Jonathan. 1995a. Resolving questions, part I. *Linguistics & Philosophy* 5:429–527.
- Ginzburg, Jonathan. 1995b. Resolving questions, part II. *Linguistics & Philosophy* 5:567–609.
- Hacquard, Valentine. 2006. Aspects of modality. Doctoral dissertation, MIT.
- Han, Chung-hye. 1998. The structure and interpretation of imperatives: mood and force in Universal Grammar. Doctoral dissertation, University of Pennsylvania.
- Iatridou, Sabine. 2000. The grammatical ingredients of counterfactuality. *Linguistic Inquiry* 31:231–270.
- Klein, Wolfgang. 1994. *Time in language*. London: Routledge.
- Nevins, Andrew. 2002. Counterfactuality without past tense. In *Proceedings of NELS 32*, ed. Hirotoni, 441–450. Amherst: GLSA.
- Portner, Paul. 2005. The semantics of imperatives within a theory of clause types. In *Proceedings of SALT 14*, ed. Watanabe and Young. Ithaca, NY: CLC Publications.
- Portner, Paul. 2007. Imperatives and modals. *Natural Language Semantics* 15:351–383.
- Quer, Josep. 1998. Mood at the interface. Doctoral dissertation, University of Utrecht.
- Quer, Josep. 2001. Interpreting mood. *Probus* 13:81–111.
- Roberts, Craige. 1996. Information structure in discourse. In *Papers in semantics: OSU Working Papers in Linguistics 49*, ed. Toon and Kathol.
- Russell, Benjamin. 2007. Imperatives in conditional conjunction. *Natural Language Semantics* 15:131–166.
- Schwager, Magdalena. 2005. Interpreting imperatives. Doctoral dissertation, Johann Wolfgang Goethe Universität, Frankfurt am Main.
- Stalnaker, Robert. 1978. Assertion. In *Syntax and semantics 9: pragmatics*, ed. Cole, 315–322. New York: Academic Press.
- van der Wurff, Wim. 2007. Imperative clauses in Generative Grammar: an introduction. In *Imperative clauses in Generative Grammar*, ed. van der Wurff, 1–94. Amsterdam: John Benjamins.

Luis Vicente
Department Linguistik
Universität Potsdam
Karl Liebknechtstraße 24-25
14776 Golm
Germany

vicente@uni-potsdam.de
<http://www.luisvicente.net>