

The counterfactual reading of Spanish *haber*

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Background: The configurational view of modals (Cinque, 1999) proposes that epistemic modals join the derivation above the tense and aspectual projections, whereas the so-called “root” modals scope below them. It is by means of this syntactic assumption that the differences in behavior between these two groups are derived. In the light of this division, a sentence like (1) is predicted to only have an epistemic reading, given that what appears to be the Spanish perfect tense marker *haber* is embedded under the modal. This is contrary to fact, however, since the context provided brings up the ability interpretation.

Moreover, this ability reading (explicitly ruled out by Hacquard (2010) for closely related languages like Italian, and apparently also impossible in French or Portuguese) gives rise to the interpretation that the event embedded under the modal did not take place in actuality. This counterfactual inference is interesting for (at least) three reasons: (i) it is non-cancellable and projective, (ii) it occurs in the absence of subjunctive or conditional morphology (the typical markers of counterfactuality in Spanish), and (iii) given the presence of perfective aspect on the modal, it is in stark opposition to the actuality effects presented in Hacquard (2006). For these reasons, I call these constructions non-conditional counterfactuals (NCC).

Proposal: I argue that *haber* in NCCs is not perfect tense, but the realization of an inner perfective aspect in Spanish infinitival clauses (cf. (2)). If it were a tense marker, *haber* in (3) should express the temporal precedence meaning associated with the perfect. The presence of overt temporal modifiers of the embedded event highlight that this is not the case: the arriving event in (3) is located *within* tomorrow (and not *before* tomorrow).

This suggests that scholars like Borgonovo (2011), Borgonovo and Cummins (2006), and Laca (2008), who provide an account of the counterfactuality in (1) in terms of Condoravdi (2002), might be on the wrong track. First of all, because Condoravdi’s (2002) framework is intended for non-root modals, whereas *poder* in (1) certainly expresses ability. Moreover, Condoravdi (2002) relies on the English *have* displacing the time of evaluation of the modal backwards, but (3) showed that its Spanish counterpart in NCCs, *haber*, does not trigger such temporal displacement. But most importantly, the counterfactual inference in Condoravdi (2002) is argued to be a conversational implicature. This is clearly not an accurate characterization of the counterfactuality in NCCs. Its non-cancellability (shown in (1)), together with its reinforceability without redundancy (shown in (4)), suggest that it is more like a Gricean conventional implicature (GCI). Moreover, its obligatory local effect (cf. (5)), and the possibility to felicitously convey it even when the context doesn’t entail it (cf. (6)), suggest that this GCI should be classified as part of Group C in Tonhauser et al.’s (2013) taxonomy.

In a nutshell, I suggest that this GCI arises from *haber* binding the event variable of the verb embedded under the modal and giving it a temporal location independent of that of the modal itself. This corresponds to clause (A2) of the “simultaneity condition” in (7), a proposed maxim that regulates the interaction between the ability modal and its verbal complement.

A comparison of the truth conditions of the minimal pair in (8a-b) highlights this (I follow Homer (2010) in assuming that modals introduce an event variable of their own). The denotation in (9b) is deliberately agnostic with respect to the time when the arriving event takes place, which explains the two possible root readings of (8b): if the embedded event and the modal coincide in time, we get an actuality effect (via clause (A1) of the simultaneity condition); if there is no temporal overlap, we get the counterfactual effect. Crucially, this enrichment is done pragmatically in (8b), which suggests that the actuality effects presented in Hacquard (2006) should probably be better re-analysed as relation implicatures in Spanish – as suggested in Horn (1976). In (9a), the time of the embedded event is bound independently of the modal which, following clause (A2) of the simultaneity condition, triggers the GCI.

- (1) (Context: María loves modern art. Last week she was in NYC visiting some friends who live in Manhattan. She had a lot of free time, but she felt lazy and she didn't leave her friends' apartment. Now I'm telling my parents about María's trip and I say:)

María pudo.P_{erfv} haber visitado el MoMA (# y lo hizo).

"Mary could have visited the MoMA. (# and she did it)."

(lit. ?? "Mary was able to have visited the MoMA")

- (2) $\llbracket \text{haber} \rrbracket = \lambda P. \lambda t. \exists e [\tau(e) \subseteq t \ \& \ P(e)]$

- (3) *Jon pudo haber llegado mañana.*

"Jon could have arrived tomorrow." (lit. ?? "Jon was able to have arrived tomorrow")

- (4) *María pudo.P_{erfv} haber visitado el museo y no lo hizo.*

"María could have visited the museum and she didn't do it."

- (5) # *María cree que Jon pudo haber ganado la carrera y que le dieron una medalla por llegar el primero.* (OK in epistemic reading.)

"María thinks that Jon could have won the race and that he was given a medal for arriving first."

- (6) (Context: I'm walking down the street with a friend when I spot an old man who my friend can't possibly know because he's from a much younger generation. Out of the blue, I say to my friend:)

Ese hombre pudo haber ganado una medalla en los JJOO. ¿Te cuento su historia?

"That man could have won a medal in the Olympic Games. Do you want to hear his story?"

- (7) Simultaneity condition:

(A) An event embedded under the ability modal may only take place if the temporal boundaries of said event are contained within the temporal boundaries of the ability modal:

(A1) For an actuality effect to be triggered, the temporal boundaries of both the ability modal and the embedded event must be identical.

(A2) If there is no overlap between the temporal location of the ability and that of the embedded event, counterfactuality ensues.

- (8) a. *Jon pudo haber llegado.*

- b. *Jon pudo llegar.*

"Jon could have arrived"

"Jon was able to arrive"

- (9) a. $\llbracket ((8a)) \rrbracket = \exists t' [t' < t^* \ \& \ \exists e' [\tau(e') \subseteq t' \ \& \ e' \text{ in } w^* \ \& \ \exists w' \in \text{Acc}(e') [\exists t. \exists e [\tau(e) \subseteq t \ \& \ \text{arrive}(e, \text{Jon}) \text{ in } w']]]]$

b. $\llbracket ((8b)) \rrbracket = \exists t' [t' < t^* \ \& \ \exists e' [\tau(e') \subseteq t' \ \& \ e' \text{ in } w^* \ \& \ \exists w' \in \text{Acc}(e') [\exists e [\text{arrive}(e, \text{Jon}) \text{ in } w']]]]$

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