ANCHORING PRAGMATICS IN SYNTAX AND SEMANTICS

A Dissertation Presented
by
MARÍA BIEZMA

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2011

Linguistics

ANCHORING PRAGMATICS IN SYNTAX AND SEMANTICS

A Dissertation Presented
by
MARÍA BIEZMA

Approved as to style and content by:

Christopher Potts, Chair

Rajesh Bhatt, Member

Lyn Frazier, Member

Adrian Staub, Member

Margaret Speas, Department Head
Linguistics

Helen: [*sobbing*] *What'll I do? What'll I do?*

Edna: [*shouting*] *What are you talking about? [...] My God... [swatting Helen with a newspaper] Pull-yourself-together! "What will you do?" Is this a question? [...] Go, confront the problem. Fight! Win! [normal voice] And call me when you get back, darling. I enjoy our visits.*

Edna Mode, *The incredibles*

ACKNOWLEDGMENTS

I will keep these acknowledgments brief. I want to take the chance to thank all the people at UMass who helped me during these six years. I want to specially thank my committee, Christopher Potts, Rajesh Bhatt, Lyn Frazier and Adrian Staub for all their help and support during this time.

ABSTRACT

ANCHORING PRAGMATICS IN SYNTAX AND SEMANTICS

MAY 2011

MARÍA BIEZMA
Licenciatura, UNIVERSIDAD COMPLUTENSE DE MADRID
M.A., UNIVERSITY OF OTTAWA
Ph.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Christopher Potts

The goal of this dissertation is to investigate some of the ways in which pragmatic meanings are generated on the basis of syntax and semantics. The theoretical motivation guiding this research is to contribute towards the understanding of how pragmatics is anchored in syntax and semantics, paying particular attention to the role of discourse.

The focus of this dissertation is the 'discourse-driven' construction of meaning. In this dissertation I investigate various ways in which the interaction between syntax, semantics and discourse work together to give rise to meanings that cannot (straightforwardly) be accounted for in isolation from discourse. In terms of data, the focus is on HPCs, a structure that I have argued is a type of conditional in Spanish. HPCs serve as ideal windows into the interaction between syntax, semantics and discourse. They are non-canonical structures, 'reduced' from the point of view of syntax (lacking inflectional projections). They give rise to a varied and rich range of meanings and allow us to see the importance of paying attention to the interaction between syntax, semantics and discourse to understand how meanings are constructed. I also draw comparisons with other languages, in particular with English optatives, which I claim are very similar to HPCs.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Figure **Page**

CHAPTER 1
INTRODUCTION

The goal of this dissertation is to investigate some of the ways in which pragmatic meanings are generated on the basis of syntax and semantics. The theoretical motivation guiding this research is to contribute towards the understanding of how pragmatics is anchored in syntax and semantics, paying particular attention to the role of discourse. The research in this dissertation is guided by the Spanish construction in (1), which I dub HPC (it is made up by the auxiliary verb 'haber' plus a participle clause).

(1) Haber estudiado más [HPC]

have.Inf studied more
'Duh! Had you studied more...'

HPCs are part of the colloquial (usually spoken) register in Spanish and carry a certain emotional charge. They are frequently used to indicate that the speaker is reproaching the addressee, though they can also signal the speaker's empathy towards the addressee (as in the speaker sharing the addressee's sadness that something has or has not happened). The construction is interesting for a variety of reasons. In part, the interest is syntactic. HPCs have a 'non-canonical' structure for an independent clause, being made up exclusively of an auxiliary verb *haber* ('have') in the infinitival form and a participle clause. Spanish does not usually allow infinitival clauses to stand on their own (they can appear in embedded constructions). HPCs are thus special in lacking the full inflectional structure standardly associated with independent clauses in Spanish. HPCs are also interesting from the point of view of their discourse licensing conditions. They have very specific requirements. The first remarkable discourse characteristic is that HPCs need a *cue*. Consider (2), where we can see an HPC in context.

(2) John is going out partying the night before the final exam while his roommate Peter stays home studying.

Peter: You'd better stay home and study for tomorrow's test. Otherwise you're going to be in trouble.

John: No man! It's all under control. Just another Linguistics 101 exam.

With this John goes out and gets back just in time to go straight to bed. Next day, the Ling101 exam happens to be more complicated than usual and John does very badly.

John: Oh no! It was difficult! I don't think I answered any of the questions correctly!

Peter: Haber estudiado más [HPC]

have.Inf studied more

'Duh! Had you studied more...'

The HPC in (2) is licensed by John's utterance, in which he regrets having performed so poorly in the exam. If John had not indicated somehow that he wishes he had performed better, Peter's HPC would not be acceptable. This indicates that HPCs need a cue. As well as illustrating the need for a cue, the scenario in (2) also illustrates other discourse constraints on HPCs. Peter's HPC responds to John's utterance by offering an alternative that could have been put in effect to bring about John's current desires: if John had studied more (instead of going out partying), he would have performed better in the exam. For an HPC to be felicitous, the consequences of the truth of the proposition in the HPC have to be desired. If the consequences of the proposition in the HPC are not desired, the HPC is not licensed. HPCs are understood as offering alternatives to what has actually happened that would have brought about the desired consequences. This feature of HPCs makes them very similar to English optatives, in which we also find a bare antecedent leading to desired consequences. Imagine (3) uttered by John in the scenario above:

(3) **John:** If only I had studied more [OPTATIVE]

The utterance of (3) signals John's desires to have performed better in the exam, and indicates that this would have been possible if he had studied more instead of going out partying. This example illustrates that in optatives too the consequences brought about by the truth of the proposition have to be desired for the optative to be felicitous. Given the link with optatives, part of this dissertation will be devoted to investigating this construction.

The last interesting property of HPCs that I would like to mention here is that they are usually not polite. There is a sense of obviousness to them that I represent in the glosses with *Duh!* The speaker is stating the obvious and the addressee will usually not welcome the HPC.

HPCs present a theoretical challenge because they require that we account for an intricate set of meanings and constraints on the basis of a relatively impoverished syntactic structure. There are in principle various types of analyses that could be entertained. One could speculate that the meaning corresponding to the desirability is generated by a covert LF operator similar to a bouletic modal (somehow special). Or one could speculate that the extra meanings carried by HPCs arise on the basis of conventionalization. However, these are relatively ad-hoc solutions I do not adopt them in this dissertation. Instead, I will build an analysis that explains the extra meanings associated with HPCs on the basis of the interaction between elements corresponding to syntax, semantics and pragmatics.

The main claim made in this dissertation is that in constructing the meaning of natural language utterances we need to pay very close attention to the structure of discourse. The contribution made by the discourse component to the meaning of natural language utterances is actually more important than has traditionally been acknowledged. HPCs provide us with an interesting perspective on the discourse effects of non-canonical syntax as well as a rich source of information regarding how meanings related to desires and reproaches can be discursively constructed on the basis of relatively simple syntactic tools. I will argue, for example, that the desirability meaning in HPCs is the result of the discourse assumptions leading to the utterance of HPCs. This analysis of the construction supports the view that meanings are not just obtained by compositional addition but also by considering goals in discourse. The proposal in this dissertation thus agrees with Grice's views on meaning, as summarized here by Stalnaker:

> Grice's idea was that if one could provide a framework for the description of discourse as a sequence of intentional actions with a certain recognized purpose and direction, then some superficially complex and apparently arbitrary facts about the use of language –about what expressions can be appropriately used in what contexts, and about what information can be conveyed with what linguistic means–might be explained more simply with the help of independently motivated truisms about how rational agents choose the means to accomplish their ends.
>
> (Stalnaker, 2002, pg. 702)

In this dissertation I implement this perspective by making use of the tools provided to us by discourse models (in particular Roberts 1996) and articulating the interaction with the semantics. By making the connection between speaker's intentions and the (conventional) semantics of utterances we can provide an explanatory account of meanings that may otherwise be treated as conventionalizations or by means of ad-hoc operators.

The structure of this dissertation is as follows. In Chapter 2 I provide an overview of the characteristics of HPCs and review the only previous proposal that I am aware of. Bosque (1980) carefully describes some of the characteristics of HPCs and proposes that HPCs should be analyzed as imperatives in the past. In this chapter I review Bosque's arguments and argue that HPCs are not imperatives. I provide a detailed overview of the properties of HPCs. In addition, I provide experimental support for some of the generalizations.

In Chapter 3 I discuss the structure of HPCs. I argue that HPCs are conditionals in which only the antecedent clause is spelled out (thus, it is the only thing we hear). I present arguments against the view that HPCs spell out consequents. I discuss various properties of the structure, providing data to support the conditional analysis and accounting for the missing consequent in terms of the absence of a tense projection in the clause.

In Chapter 4 I discuss the interpretation of HPCs as conditionals. If they are conditionals, they must be headed by a modal operator. I argue against a view of HPCs as necessary deontic conditionals and argue instead that HPCs are similar to 'would'-conditionals and that the construction is headed by a silent modal with the semantics of a plain universal modal.

In Chapter 5 I address the problem of explaining how the meaning of desirability arises in HPCs. I begin by noting some parallelisms between HPCs and optative constructions in other languages, focusing on English. Desirability is conveyed by optatives too. I begin by proposing an analysis of desirability in optatives and then extend the proposal to HPCs. The important point in this chapter is to show that desirability can be derived as a discourse inference by paying attention to the discourse goals at the moment the HPC is uttered. Desirability is thus a 'pragmatic' meaning arising from the discourse. The analysis presented in this chapter accounts for various properties of HPCs (the need for cues, the intuition of desirability and, partly, their use as reproaches) on the basis of interaction with discourse structure. The proposal thus cashes in the idea that discourse goals can give rise to meanings.

In Chapter 6 I discuss the role of inversion in HPCs. I note that inversion is found in different kinds of conditional structures (not only in HPCs) and that it makes a uniform contribution throughout. I argue that the role of inversion is to signal the discourse status of information through the use of non-canonical word-orders. Inversion thus results in one further tie between HPCs and discourse since it indicates that the proposition visible in the surface structure of the HPC is already entailed by the preceding discourse. Inversion contributes the sense of obviousness associated with HPCs and, together with the conclusions in chapter 5, explains why they are used as reproaches. Finally, I provide an appendix with the experimental materials used in the experiments found throughout the dissertation.

CHAPTER 2
HPCS

In this chapter I introduce the Spanish construction that is going to lead the discussion in this dissertation. This is illustrated in (4).[1]

(4) You are about to make your first soufflé and you would like John (soufflé expert) to help you, but you think he will be away until next Tuesday. You decide not to wait for his return. You make the soufflé and the result is a fiasco. You are now talking to Sarah, who is aware of all this.

You: The soufflé was a disaster.

Sarah: Haber hecho el suflé el martes que viene. [HPC]

have.Aux.Inf made the soufflé the Tuesday that comes

'You should have made your soufflé next Tuesday'

The Spanish construction in (4) is formed by the auxiliary verb ***h**aber* ('have') in infinitival form, and a **p**articiple **c**lause. Henceforth I refer to this construction as HPC. In what follows I make use the notation in (5).

(5) HPC(α) = HPC(you do the soufflé next Tuesday)

In HPC(α), α stands for the propositional content of the participle clause (*you do the soufflé next Tuesday* in (4)).[2]

HPCs have been previously investigated by Bosque (1980), who proposes an analysis of HPCs as imperatives in the past. In this analysis, HPCs are a counterexample to the crosslinguistic generalization that imperatives are future oriented. The English paraphrase in (4) is Bosque's paraphrase for HPCs. He uses a deontic modal statement to paraphrase HPCs because of the lack of a better English construction resembling what he assumes to be the meaning of this construction: Bosque (1980) proposes that HPCs are better characterized as imperatives in the past, as *retrospective imperatives*.

In this chapter I present an overview of HPCs and Bosque's (1980) proposal for an analysis of HPCs, §2.1.

---

[1]The scenario is based on Arregui (2005)'s future oriented counterfactual examples: *She made her first soufflé last Tuesday. If she had made her first soufflé next Tuesday, she would have had help from her mother in law*.

[2]When identifying the proposition embedded in HPCs, I abstract away from the semantics of aspect.

2.1 A first approach to HPCs

Bosque (1980) was the first author to investigate the construction in (6) and to point out to the characteristics that make it special both syntactically and pragmatically.

(6) Haber-la invitado a la fiesta [HPC]

have.Aux.Inf-cl.Acc.fem invited to the party

'You should have invited her to the party'

(Bosque, 1980, ex. (11b))

Bosque translates HPCs in English with a modal *should*. By using this translation he conveys the idea that HPCs have a deontic reading, which is necessary for his purpose of analyzing HPCs as *retrospective imperatives*. However, this translation is misleading. If one were to translate the HPC in (6) to English with a modal sentence, one may be tempted to use *should*, but it can be the epistemic 'should'. To see this, compare the two scenarios below:

(7) a. Scenario 1: You and I are preparing the appetizers for a party tonight. You know I have a crush on María, a girl I try to see every time I can.

i. You: Yesterday I met María in the library

ii. Me: Haber-la invitado a la fiesta

have.Aux.Inf-cl.Acc invited to the party

'You should have invited her to the party'

b. Scenario 2: You and I are preparing the appetizers for a party tonight. We are talking about María, who you have a crush on:

i. You: Yesterday I met María in the library

ii. Me: Haber-la invitado a la fiesta. A mí no me

have.Aux.Inf-cl.Acc invited to the party to me neg had.3.sg.Subj

hubiera importado

minded

'You should have invited her to the party. I wouldn't have minded'

The scenario in (7a) may convey the idea of a duty that needed to be fulfilled in the past: as my friend, knowing what my goal is, you should have invited María, because that is what friends should do. There seems to be a deontic flavor in this interpretation. However, in (7b), we interpret the HPC as stating that you were free to invite her to the party and that if you had done so, you could have seen her in a more festive environment.

The discussion above is intended to caution the reader when approaching §2, and reading the translations given by Bosque to HPCs. I will argue later in this dissertation that the most accurate paraphrase to HPCs is obtained when using a conditional structure, not just a modal sentence.

The presentation is organized as follows: in §2.1.1, I describe the data following the thorough presentation given in Bosque (1980). I review Bosque's analysis, in which he proposes an analysis of HPCs as retrospective imperatives, and introduce new data arguing against an imperative-like analysis for HPCs. This is the most detailed section, since it establishes the grounds for the investigation of HPCs in the dissertation. In §3, I introduce a proposal in which HPCs are analyzed as conditionals in which only the antecedent is spelled out and the consequent needs to be retrieved from the context. The goal of the dissertation is to account for the syntax, the semantics and the pragmatics of this construction. On the way, much will have to be said about the syntax of Spanish conditionals, counterfactual modality, and necessary representation of context.

2.1.1 Bosque's characterization of HPCs

I begin with the relevant data from Bosque (1980). On the basis of examples like (13), Bosque claims that HPCs are orders that should have been carried out in the past.

(8) a. Haber venido ayer

have.Aux.Inf come yesterday

'You should have come yesterday'

(Bosque, 1980, ex. (1))

b. Haber -la invitado a la fiesta

have.Aux.Inf -la.cl.Acc invited to the party

'You should have invited her to the party'

(Bosque, 1980, ex. (11b))

Bosque (1980) describes the formal characteristics of the constructions in (8) and concludes that they look and behave like imperatives, the only difference being that, whereas imperatives are usually characterized as orders oriented towards the future, HPCs point to the past. This makes HPCs a very interesting construction, since, on this analysis, they violate the crosslinguistic generalization that imperatives are future oriented.

The goal of Bosque (1980) is to argue in favor of an imperative-like analysis of HPCs. In order to do that, he systematically compares HPCs with imperative constructions in Spanish, and with modal constructions with a deontic modal, *debería* ('should'), concluding that HPCs are to be assimilated as imperatives.In the next section I introduce Bosque's characterization of the data, §2.1.1.1, and in §2.1.1.2 I review Bosque's analysis of HPCs

as *retrospective imperatives*. In §2.2 I discuss his proposal and conclude that HPCs are not imperatives.

2.1.1.1 Comparison with imperatives

The comparison between (9) and (10) illustrates similarities between imperatives and HPCs. Like (regular) imperatives in Spanish, HPCs do not have overt subjects, except in discriminatory situations.

(9) HPCs

a. Haber salido

have.Aus.Inf got out

'You should have got out'

b. Haber salido tú

have.Aux.Inf got out you

'You should have got out'

c. * Tú haber salido

you have.Aux.Inf got out

(Bosque, 1980, ex. (8))

(10) Imperatives

a. ¡ Sal !

get out.2.sg.Imp

'Get out!'

b. ¡ Sal tú !

get out.2.sg.Imp you

'Get out!'

c. *¡ Tú sal !

you get out.2.sg.Imp

Like the imperative example, (10c), HPCs do not accept overt subjects, (9b). The addressee cannot be spelled out unless it is at the end, (9b, 10b). When the subject is uttered at the end, as in (9b) and (10b), the HPCin (9b) and the imperative in (10b) have a discriminatory interpretation: you should have gotten out *instead of him/ and no one else*. A further similarity with imperatives, Bosque claims, is that the only possible agent pronoun in HPCs is the 2^{nd} person pronoun.

Bosque (1980) describes the conditions of use of HPCs. He notices that HPCs can only be used as replies, (11).

(11) Replies

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

A: Siento mucho llegar tarde

'I am sorry I am late'

B: Haber salido antes de casa

'You should have left home ealier'

b. To suggest that the listener has missed or failed to use some particular option in a previous situation:

A: Ayer me encontré a María por la calle

'I happened to meet María on the street yesterday'

B: Haberla invitado a la fiesta

'You should have invited her to the party'

c. 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:

A: Hay que ver lo mal que va el país

'This country is in very bad shape'

B: No haber votado a UCD

'You should not have voted for the UCD'

The fact that HPCs can only be replies is a problem for a modal analysis, since it is easy to start a conversation with a regular modal sentence, (12).

(12) Vas a perder el autobús. *(Deberías) haberte levantado antes
'You're going to miss the bus. You should have got up earlier'

(Bosque, 1980, ex. 13)

The characteristics of HPCs noted above suggest it would be difficult to argue for an analysis in terms of covert modality. In the next section I describe Bosque's analysis, in which he tries to make sense of all the characteristics by analyzing HPCs as restrospective imperatives.

2.1.1.2 Bosque's analysis of HPCs as retrospective imperatives

Let's focus on (6), repeated below for convenience, to illustrate Bosque's argumentation in favor of HPCs as restrospective imperatives.

(13) Haber venido ayer

have.Aux.Inf come yesterday

'You should have come yesterday'

(Bosque, 1980, ex. (1))

Bosque's first argument is that HPCs, like imperatives, do not have truth values (they cannot be answered with *that is false*), (14a) and (14b).

(14) a. A: Haber venido antes

'You should have come earlier'

B: # That is false

b. A: Ven antes

'Come earlier!'

B: # That is false

However, *that is false* is a possible answer for modal sentences, (15).

(15) A: Deberías haber venido antes

should have come before

'You should have come earlier'

B: That is false

According to Bosque (1980), the contrast between (14) ad (15) argues against an analysis of HPCs as modal sentences with a covert modal like *should*, and in favor of an imperative-like analysis.

Another similarity between imperatives and HPCs is that, like any regular imperative, HPCs cannot be embedded:

(16) Creo que viniste/ *ven

think.1.sg that came.2.sg.past/ come.2.sg.Imp

'I think that you came'

(17) Creo que *(deberías) haber venido.

think.1.sg that should.2.sg have.Aus.Inf come

(16) shows that a verb with imperative morphology cannot be embedded and, similarly, (17) shows that HPCs cannot be embedded either. However, when there is an overt modal, embedding is possible in Spanish. Again, this argues against a covert-modal analysis of HPCs and in favor of an imperative-like analysis.

Despite the parallelism drawn between imperatives and HPCs, Bosque points out features in which HPCs differ from regular imperatives. For example, HPCs do not accept *por favor* ('please'), unlike regular imperatives.

(18) a. No te cases con ella (por favor) [Imperative]

neg cl.2.sg marry.2.sg.Subj with her please
'Don't marry her, please'

b. Haber-te casado con ella (* por favor) [HPC]

have.Aux.Inf-cl.2.sg married with her please
'You should have married her'

(Bosque, 1980, ex. 14.a-b)

However, Bosque claims that the impossibility of accepting *por favor* ('please') is due to the fact that HPCs are replies. He claims that *por favor* ('please') is not possible with regular imperatives either when they are used as replies.[3]

(19) Pues no te cases con ella (*por favor)
'Well, don't marry her (*please)'

(Bosque, 1980, ex. 14.c)

Looking at the contrast between (18) and (19), Bosque points out that "an analysis of [HPCs] employing a "deber ['should']- deletion rule" would have to make this rule sensitive to pragmatic information," and thus he abandons that option.

Bosque does observe one difference between imperatives and HPCs. This difference refers to the possibility of having "rhetorical imperatives", but not rhetorical HPCs:

(20) Vete a saber por qué
'I/we don't know why (lit. go see why!)'

(Bosque, 1980, ex. 15.a)

[3]My own intuitions do not agree with the data in (19). An informal survey of 7 people on the matter with Castilian Spanish speakers did not confirm Bosque's judgements either. The intuitions in other languages, also differ from Bosque's data. So in English one can say *Please, marry her then* in response to our friends defense of his fiance whom we hate.

Rhetorical imperatives are ambiguous between a literal meaning, in which a command is addressed, and a highly lexicalized meaning, in which there is no command addressed, despite the presence of the special imperative verb morphology. However, in Bosque's words, 'there is no possibility of inferring a nonliteral reading from [HPCs].' This is illustrated in (21) below.

(21) a. Juan: La verdad es que no entiendo las razones para cerrar el bar.
'To be honest, I do not know why they closed the bar'
Antonio: Vete a saber por qué
go.Imp to know.Inf why
'Who knows'

b. Juan: La verdad es que no entiendo las razones para cerrar el bar.
'To be honest, I do not know why they closed the bar'
Antonio: Haberte ido a saber por qué [HPC]
have.Inf gone to know whay
'You should go and find out'

The imperative in (21a) has a non-literal meaning. However, a non-literal meaning is impossible in (21b).

We have seen above different points of similarity between imperatives in Spanish and HPCs that seem to argue in favor of HPCs as imperatives. However, as we will see in the next section, things are more complicated. In §2.2 I argue against an analysis of HPCs as imperatives.

2.2 Discussion

Bosque (1980)'s analysis seems to draw an interesting parallelism between regular imperatives and HPCs. However, the analysis faces problems.[4]

2.2.1 *#That is false*

It has been discussed in the literature that most modals have two different uses: the *descriptive* use and the *performative use* (Kamp 1973, 1978; Lewis 1979; van Rooy 2000; Schwager forthcoming). The difference can be observed in (22).

(22) You may take a pear
a. ... At least according to what the guy in the uniform said

[4]In what follows I give paraphrases for HPCs similar to those given in Bosque (1980). I will present more precise paraphrases in chapter 3.

b. ... But I won't allow you to take an apple

(Schwager, forthcoming, ex. (4))

The follow up in (22a) illustrates the *descriptive* reading of the modal *may*, whereas (22b) illustrates the *performative* reading. In the performative reading, utterances containing modals cannot be responded with *that is false*.

We saw above that HPCs cannot be responded to with *that is false*.[5] Looking at (22) one could imagine an account in which HPCs are modal statements in which the modal is used performatively, and thus the impossibility of replying to HPCs with *that is false* would be expected. This would not disagree with Bosque's proposal that HPCs are restrospective imperatives. Schwager (2006), for example, proposes that imperatives are just modal sentences in which the modal is used performatively. However, if HPCs are imperatives they would be very special ones. Below I show sharp differences between imperatives and HPCs. I will return to the question of why HPCs cannot be replied to with *that is false* in chapter 5. I will argue there that the impossibility of replying to HPCs with *that is false* is due to the fact that HPCs are not of the right type: *that is false* can only be a reply to a proposition and, as I will argue, HPCs are not propositions. The discussion here is intended to reject Bosque's argument of the impossibility of replying to HPCs with *that is false* as a strong argument to analyze HPCs as imperatives.

2.2.2 No imperative morphology

In his introduction to the characterization of HPCs, Bosque claims that even though the infinitival form is the most common verb form in the auxiliary in HPCs, the imperative is also possible. Indeed, he points to this alternation as a further similarity between HPCs and imperatives, which can surface with either infinitival or so-called regular imperative morphology. Notice, however, that despite mentioning that imperative morphology is possible in HPCs, Bosque does not provide any data supporting his claim. Indeed, a corpus search in the *Corpus of Reference of Spanish* (CRAE) returns no occurrence of an HPC with the auxiliary with imperative morphology. The fact that HPCs are not found with imperative morphology casts suspicion on the existence of such an alternative. However, a stronger argument is that there is no possible imperative form in the Spanish auxiliary (Biezma 2008a). According to the verbal paradigm, if the imperative form were to exist in Spanish, it would be *ha* for the second person singular, (23).

(23) * Ha-la invitado a la fiesta

have.2.sg.Imp-cl.Acc.fem invited to the party

[5]Bosque uses the fact that we cannot reply to HPCs with 'that is false' to argue that they are imperatives.

The example in (23) illustrates that HPCs with imperative morphology are not possible. This fact illustrates that the claim that examples with infinitival auxiliaries, HPCs, are truly imperatives has to be defended in the absence of canonical imperative forms in the auxiliary and rises questions regarding such an analysis: why if HPCs are imperatives they cannot have imperative morphology?

The only possible morphology in HPCs is the infinitival morphology, (24a). As in the case of 2^{nd} person singular imperative morphology, 2^{nd} person, plural imperative morphology is also ruled out, (24b).

(24) a. Haber salido antes
have.Aux.Inf left earlier
'You should have left earlier'

b. $*$ Habed salido antes
have.Aux.Imp.2.pl left earlier

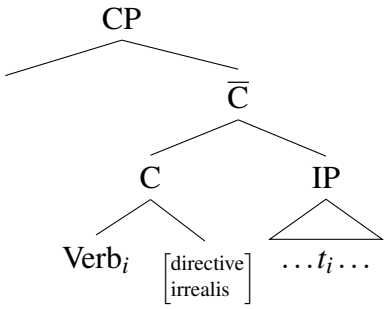
c. Habed paciencia (CORDE)
have.Imp.2.pl patience
'Have patience'

Speaker's intuitions regarding the impossibility of (23) and (24b) are supported by the absence of instances of HPCs bearing that form: the imperative form in the auxiliary is not attested. We do find imperative morphology in *haber* ('have') when this verb is a lexical verb, (24c). When asked directly, some speakers may consider (24b) not too bad. However, this is a case of hypercorrection. If they are told that (24a) is an imperative, the imperative morphology would correspond to that on (24b), which is the morphology you find in the imperative form of the lexical verb, from which they can borrow. However, it is not possible to have the 2^{nd} singular person of the imperative in the auxiliary, (23). No speaker accepts (23).

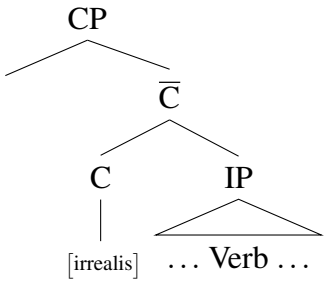
However, it has been noticed in the literature that there are imperatives in Spanish with infinitival morphology (Rivero and Terzi, 1995; Han, 2000; Biezma, 2008b,a, a.o.). Perhaps we could analyze HPCs as another example of them. Biezma (2008a) proposes an analysis of imperatives in Spanish in which they do not have tense or aspect. In Biezma's (2008a) account, imperative morphology only reflects person and number agreement. However, this account of imperatives couldn't be maintained if HPCs were also imperatives, since HPCs have aspect, as indicated by the presence of the auxiliary *haber*. If we instead adopt Han's (2000) proposal for imperatives, the syntax of HPCs is (25b), in which the imperative-like meaning is the result of an inference. According to Han, the directive feature in C triggers movement of the verb to C. However, when there is negation, the resulting configuration is ungrammatical (the reader is referred to Han (2000) for details). When negation is present,

the language has to settle for a different configuration in which the features is a subset of the features in (25a). In (25b) there is no movement, and the morphology realizing the irrealis feature is either infinitival or subjunctive.

(25) a. Regular imperative syntax



b. Infinitive imperative syntax



According to Han (2000), if the directive force can be inferred when negation is present and we have the syntax in (25b), it could be also inferred when negation is not present, thus explaining why (26c) can be understood as an imperative.[6]

(26) a. ¡ No cerrar la puerta !

neg close.Inf the door

'Don't close the door!'

b. ¡ No cerréis la puerta !

neg close.2.pl.Subj the door

'Don't close the door!'

c. ¡ Cerrar la puerta !

close.Inf the door

'Close the door'

[6]Han's account assumes that imperatives with imperative morphology and imperatives with infinitival morphology do not differ in anything regardless of the different morphology. See Biezma (2008b) for a different view.

Adopting Han's (2000) account, HPCs would have the syntax in (25b). However, notice that (26c), understood as an imperative, can alternate with the constructions with imperative morphology, *cerrad la puerta!* ('close the door!', with second person, plural, imperative morphology). This is not possible with HPCs, thus making an account of HPCs as imperatives suspicious.

2.2.3 3^{rd} person reference

Bosque claimed that HPCs cannot appeal to a 3^{rd} person. However, there is evidence against this claim, (27).

(27) A: 'We will have to see what Félix thinks' [*free translation*]

B: Félix no piensa. No está. ¡ Haber venido!

Félix neg thinks neg is have.Aux.Inf come

'Félix does not think. He is not even here. He should have come!

[RAE. CREA]

In (27), the person who should have arrived is Félix, who is neither the speaker nor the addressee. The example goes against Bosque's generalization regarding the pronouns compatible with HPCs. However we will not take this fact in itself to be a decisive argument against a view of HPCs as imperatives. Biezma (2008b) shows that third person pronouns are possible in Spanish imperatives. What is important is that there are differences between 3^{rd} person pronoun in imperatives and those in HPCs. To see the contrast we will examine a 'bare form' (infinitival) imperative with a 3^{rd} person pronoun. Consider the scenario in (28).

(28) Scenario: Old country home. Summer time. A group of novices is spending the weekend there, doing spiritual exercises. The old house has a lot of windows, and being summer, they are all open. Suddenly, it begins to rain heavily. The priest in charge notices it while talking to the bishop in his study and yells so he can be heard outside:

a. ¡ Cerrar las ventanas !

close.Inf the windows

'Close the windows!'

In (28) the bishop is certainly not expected to start closing windows. This excludes a second person interpretation. Biezma (2008b) pointed out that in bare form imperatives, the addressee is 'non-specific'. It doesn't matter to the speaker who fulfills the command. If the priest utters the sentence in (28a), the command will be fulfilled as soon as the windows are closed. It won't matter who closed the windows, nor how many novices helped. This

argues in favor of a view according to which bare-form imperatives have a default 3^{rd} person interpretation that is not specified for number. The interpretation of 3^{rd} person that we see in the imperative in (28) is thus very different from the one we find in HPCs, where there is always a uniquely identified 3^{rd} person (as we saw in (27)). Once again, HPCs differ from imperatives.

2.2.4 Stative predicates

Another argument against an imperative-account of HPCs comes from the fact that HPCs admit stative predicates, which are impossible in regular imperatives. This is illustrated below for *saber* ('know').

(29) Haber-lo sabido antes

have.Aux.Inf-lo.Acc known before
'You should have known it earlier'

(29) illustrates that HPCs allow stative predicates. However, there is no imperative form for the verb *saber* ('know'), (30).[7]

(30) *¡ Sabe-lo!

know-it

Stative predicates do not have imperative forms. However, statives are fine in modal constructions:

(31) Deberías saber-lo antes

should.2.sg know.Inf-lo.Acc earlier
'You should know it earlier'

2.2.5 Weird orders

There are HPCs that are perfectly fine, but would make very strange orders, (32).

(32) John: I have so much work to do and nobody helps me, my boss is very demanding..., life is so hard!

Izaskun: ¡ Haber nacido patata !

have.Inf born potato

'You should have been born a potato'

[7]The imperative form in (30) does not exist. The verb form in (30) is only an attempt based on the verb paradigm for *saber* ('know').

Izaskun's response to John's complaints is certainly sarcastic. However, it is a good HPC. The utterance is felicitous. However, one cannot utter an equivalent imperative in the past. It is not possible to order to someone to born in a certain way, but it is felicitous to utter the HPC.

An account of HPCs as retrospective imperatives would have problems explaining this difference between regular imperatives and 'imperatives in the past'.

2.2.6 HPCs are always replies

Bosque (1980) points out that HPCs are always replies. Let us look at the scenario in (33), slightly modified from (4).

(33) You are about to make your first soufflé and you would like John (soufflé expert) to help you, but you think he will 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

Sarah: # Haber hecho el souflé el martes que viene.

have.Aux.Inf made the soufflé the Tuesday that comes

'You should have made your soufflé next Tuesday'

Sarah's utterance in (33) is infelicitous because, unlike in (4), there is no previous utterance licensing her utterance. However, if before Sarah's utterance you say something like *Oh my! The soufflé was a disaster*, Sarah's utterance of the HPC would be fine.

HPCs need a cue to be uttered felicitously. However, a cue is not necessary to make an imperative felicitous.

However, more needs to be said regarding the nature of the *cue* licensing an HPC. There is no need for the *cue* to be linguistic. If Sarah comes into the kitchen and you look at her with a sad face and somehow make her understand that you are sad because the soufflé was a disaster, Sarah's utterance in (33) is fine. HPCs impose very strong discourse conditions. They are not good out of the blue, unless a previous discussion is assumed and, thus, the discourse restrictions that HPCs need are more easily met when HPCs are replies, but those are not the only instances in which we can find HPCs. We saw already that HPCs are good in the case in which you just had a sad face, obviously because of your unsuccessful soufflé. A sad face indicating regret was good enough to to license Sarah's HPC.

HPCs are not good conversation starters. Whenever uttered as a first utterance, one has to accommodate the existence of a previous discourse in which the HPC can act as a response. The same is found in other constructions, like declaratives with final rising intonation (Gunlogson, 2001, 2008)

(34) [Gina to her officemate Harry]

a. Is the weather supposed to be good this weekend?

b. # The weather's supposed to be good this weekend?

(Gunlogson, 2008, ex (6))

As Gunlogson points out, (34b), a declarative question (question with final rising intonation) is not a good utterance out of the blue, whereas a syntactic question, (34a) is not subject to this difficulty. Also, like HPCs, a previous utterance (linguistic *cue*) is not necessary for a rising declarative to be felicitous, (35).

(35) [Laura has just entered the room, where Max sees her for the first time that day]
Max:

a. Did you get a haircut?

b. You got a haircut?

c. You got a haircut

(Gunlogson, 2008, ex (8))

A previous utterance is not necessary to license a rising declarative, the context can supply the necessary content.

In this way, HPCs pattern with rising declaratives, both need, at least, contextual support to be felicitously uttered. However, imperatives do not need such a thing. One can utter an imperative out of the blue without any problem.

2.2.7 Experiment 1: HPCs are tied to desires

Let us consider the scenario in (4) again, repeated here in (36) for convenience.

(36) You are about to make your first soufflé and you would like John (a soufflé expert) to help you, but you think he will be away until next Tuesday. You decide not to wait and the result is a fiasco. You are now talking to Sarah, who is aware of all this.

You: The soufflé was a disaster.

Sarah: Haber hecho el souflé el martes que viene. [HPC]

have.Aux.Inf made the soufflé the Tuesday that comes

'You should have made your soufflé next Tuesday'

Let's now imagine that you really just wanted to learn how to make soufflé. Yes, you wish your soufflé was perfect, but if a fiasco is what it takes to learn, you would rather have a fiasco than help from anyone else. In any case, John's help is not wanted. If Sarah knows this, she could not utter the HPC in (36) with the assumption that if you had waited till Tuesday, John would have helped you. Another example illustrating the same point is in (37).

(37) You and I are preparing the appetizers for a party tonight. We are talking about María, who you have a crush on:

You: Yesterday I met María in the library.

Me: Haber-la invitado a la fiesta. A mí no me hubiera importado.

have.Aux.Inf-cl.Acc invited to the party I wouldn't have minded.

'You should have invited her to the party'

Someone listening to the dialogue in (37), without any priviledged information regarding who has a crush on whom, would infer at least one of two things: either you want María to come to the party, or I want María to come myself (maybe both!).[8] Certainly, one thing is clear after the dialogue in (37), María's coming to the party is desired.[9]

Let us look at another example:

(38) Joan and her best friend Sarah are at a party. There are three desserts to eat at the party: berries, cheese cake and chocolate pudding. Joan is debating between the berries and the cheese cake; as everybody knows, she does not like chocolate pudding. She finally chooses the berries but is not happy about it.

Joan: Oh my! These are awful!

Sarah_1: # Haber escogido el pudding de chocolate

have.Inf chosen the puding of chocolate

Sarah_2 Haber escogido la tarta de queso

have.Inf chosen the cake of cheese

'You should have chosen the cheese cake'

Sarah_1's utterance is not felicitous because she know that Joan hates chocolate pudding and had she chosen chocolate pudding instead of berries, things would have not been much better.

The claim that the infelicity is tied to desirability has not been made in the literature. The intuitions regarding this point are very strong. However, to support the claim with more than anecdotal evidence, empirical data was systematically collected. Eight scenarios like (38) were tested in a written acceptability judgement experiment. The experiment

---

[8]Notice that if I am in love with you and would wish to prevent any possibility of you passing time with María, I can still utter the HPC in (37). In that scenario, I do not share your desires, but the fact that you alone desire to be with María licenses the utterance. Indeed, if it is open that you love María and that I hate the idea of you two being together, I can say *Haberla invitado a la fiesta. Pero me alegro mucho de que no lo hicieras* ('Had you invited her to the party... But I am really happy you didn't').

[9]Notice that here the *cue*, *I met María at the library*, does not explicitly indicate any desire. The HPC in (37) is uttered with the obvious assumption that had you invited her, María would have come. For the HPC in (37) to be felicitous, it has to be the case that Maria's coming is desired.

served the purpose of testing the intuitions reported above that the HPC is infelicitous if the consequences brought about by the embedded proposition are not desired.

2.2.7.1 Method

Materials

Eight scenarios like the one in (38) were designed with two different versions (all appear in Appendix 1). There were two forms of each dialogue following the scenario. One form contained an HPC in which the consequences of the proposition in the HPC being true were understood to be desired, (like Sarah_2's utterance in (38)), whereas the other contained an HPC in which the consequences of the proposition in the HPC were not desired (like Sarah_1's utterance in (38)). The resulting sixteen scenarios were divided into two counterbalanced lists and combined with other sixteen fillers of a different kind in a written questionnaire.

Participants and Procedures

Twenty-two students from the Universidad Complutense de Madrid completed a written acceptability judgment questionnaire. They read instructions indicating that that they were to rate the acceptability of some sentences on the questionnaire on a five-point scale. They were told they were to rate the sentence as "1" if the sentence was not at all something they would say in Spanish. They were to indicate that the sentence is a "3" if the sentence is one you would probably not say and one you would be surprised or slightly confused if you heard a Spanish speaker saying it. Finally, a "5" would be given to a sentence they could imagine themselves or another Spanish speaker saying without noticing anything odd about it. In addition, participants were asked to include any comments they might have after every item. (39) illustrates how the experimental items were presented.[10]

(39) Estás en una heladería con tu madre, es casi la hora de cerrar y sólo les quedan tres sabores: pistacho, chocolate y vainilla. Es bien sabido por todos que tienes alergia al pistacho, así que tienes que elegir entre vainilla y chocolate y optas por el chocolate, pero cuando lo pruebas te das cuenta de que es un chocolate muy dulce (a ti te gusta amargo).

TÚ: Este helado de chocolate es horrible.

---

[10]The translation:

(1) You and your mother are at a gelato store, which is about to close. They only have 3 flavors left: pistachio, chocolate, and vanilla. Everybody knows you have allergy to pistachio, thus your only options are either vanilla or chocolate. You choose chocolate. When you give your first bite you notice that this is a very sweet kind of chocolate (and you only like bitter chocolate).

You: This is a horrible gelato.
Mother: Haber escogido vainilla
have.Inf chosen vanilla

MADRE: Haber escogido vainilla

1 2 3 4 5

Horrible **Perfecto**

Comentarios:

2.2.7.2 Results and discussion

The mean ratings appear in Table 2.1.

Table 2.1. Mean Acceptability ratings (1 = unacceeptable, 5 = acceptable)

Condition	Rating	Stand. Dev.
HPC desired consequence	4.286	0.4
HPC no desired consequence	2.71	0.8

The results of the t-test show a significant difference both by subject ($t(23) = 5.36$, $p < 0.001$) and by item ($t(15) = 5.037$, $p < 0.01$). The statistics include data from subjects who did not pay attention to the details in the scenario and appear to rate HPCs by grammaticality.[11] In those cases they rated the HPCs with a "5" even though the consequences of the proposition in the HPC being true were not desired. Also, several subjects did not rate HPCs in which the consequences of the proposition were desired with a "5" because, as they wrote in the comments area, they considered that the speaker uttering the HPC was very *agresivo*, or *brusco* ("harsh") or it was not something nice to say (more on this in chapter 6). Nevertheless, the mean rates show that HPCs in which the consequences of the proposition being true are desired get a very high rate (4.28) whereas it is very low for the case of HPCs in which the consequences of the proposition in the antecedent being true are not desired (2.71). Furthermore, participants' comments also support the claim that HPCs are licensed only when the consequences of the proposition in the HPCbeing true are desired. With respect to (39), for example, participants giving a rating for an HPC with an undesired consequent (*Haber elegido pistacho*, HPC(you choose pistachio)) wrote comments like *no tiene sentido o mi madre quiere que me muera* ('it does not make any sense unless my mother wants me to die').[12]

The discussion above points to the fact that HPCs are tied to desires. However, imperatives can be uttered even if they go against the utterer and the addressee's desires. Again, this argues against an account of HPCs as imperatives.

---

[11] After completing the questionnaire, participants were asked whether they knew what the purpose of the experiment was. They were also informed of what was the target of the experiment. In such conversations a few participants recognized that they did not quite pay attention to the details in the scenarios and that they had rated constructions according to grammaticality.

[12] Indeed, this response also supports the idea that HPCs can also refer to the speaker's desires, not just the addressee's.

2.2.8 Settling for the weakest

For HPC(α) to be felicitous, α has to be the weakest alternative that would have made X's desires true,[13] (40).

(40) There are many taxi companies in the city, and they only differ with respect to the color of their cars (they all have the same speed/efficiency record). You did not take a taxi, and you are late for a meeting. You are now apologizing to John.

You: I am sorry I am late

John: Haber tomado un taxi

have.Inf taken a cab

'You should have taken a cab'

John': # Haber tomado un taxi rojo

have.Inf taken a cab red

The HPC that restricts the kind of taxis suggested, i.e. only red cabs, is not felicitous.

Imagine now that you are going to a meeting, and that you are at risk of being late.

(41) You are at risk of being late for a meeting on the other side of the city and your officemate John advices you.

$John_1$: Toma un taxi!

take.2.sg.Imp a cab

'Take a cab!'

$John_2$: Toma un taxi rojo! Pero asegúrate que sea rojo, esos son más

take.2.sg.Imp a taxi red but ensure that be.subj red those are more

bonitos

pretty

'Take a red cab! But make sure it is red, those are cooler'

In that situation, John can advise you with an imperative like *toma un taxi!* ('take a cab!'), or he can advice you to take a cab from the subset of cabs, a red cab,*toma un taxi rojo, los rojos son mucho más bonitos* ('take a red cab!, but make sure it's red, those are cooler'). This two possibilities are not open in the case of HPCs, in which we saw that only the weakest alternative was allowed.

If HPCs are imperatives, we cannot explain why the more restricted HPC is not felicitous, whereas the more restricted imperative would be. I will return to this in chapter 5.

---

[13] X stands for either the speaker, the addressee, or a third person.

2.2.9 *Duh!*

HPCs are pretty rude. HPCs carry a sense of obviousness that can be paraphrased in English by *duh!* HPCs cannot be uttered by anyone in any situation. It is necessary that the person uttering the HPC be in an equal or superior rank with respect to the addressee of the HPC.

To utter an imperative, in many occasions,[14] it is also required to be in an equal or higher rank than the addressee. This is the case when imperatives convey orders. However, imperatives are not inherently rude. Rudeness is certainly not an inherent characteristic of regular imperatives. An account of HPCs as imperatives would need to appeal to conventionalization to explain this extra meaning of HPCs.

2.2.10 Summary

In this section I have presented arguments against an account of HPCs as imperatives. I have argued that even if we could arrive to an understanding of what it means for something to be an imperative in the past, HPCs have properties and carry extra meanings that cannot be explained on an account in which they are imperatives. An account of HPCs as imperatives in the past cannot easily explain why there is no imperative morphology in HPCs, why HPCs can refer to a (specific) 3^{rd} person, or why they behave differently from with respect to stative predicates. Also, we have seen that there are good HPCs that do not make sense as an order. Orders are not obligatorily 'replies' and do not necessarily require contextual support, nor do they necessarily involve desires, and, certainly, imperatives do not need to settle for the weakest alternative. Furthermore, HPCs carry a sense of obviousness that can be paraphrased in English by *duh!*, that is not explained by an account in which HPCs are imperatives. Maintaining an account of HPCs as imperatives would amount to saying that all these extra properties are mere conventionalizations, and would require a fair amount of speculation.

2.3 Conclusion

In this chapter I have presented HPCs and I have illustrated their morphological, semantic and pragmatic characteristics. I have also presented a previous analysis of HPCs as imperatives (Bosque, 1980), and show that HPCs in fact differ from imperatives along a number of dimensions, suggesting that they are fundamentally different. In the next chapter, I seek to show that the central properties of HPCs follow from their implicitly conditionals semantics.

---

[14] Imperatives can be used to make offers or to convey an invitation. In these situations, no asymmetry is required.

CHAPTER 3
HPCS ARE CONDITIONALS

In what follows I develop an account of HPCs that appeals to covert modality, but is able to answer Bosque's objections regarding covert modals. I argue that HPCs are conditionals involving subject-auxliary inversion in the antecedent, and where the consequent must be retrieved from the context and the antecedent is understood to be false. The proposal allows me to explain why HPCs can only be uttered as replies: the consequent of HPCs is silent, but it has to be salient in the discourse so it can be retrieved. An account arguing that HPCs are conditionals allows me to explain many other phenomena such as where desirability comes from in HPCs, and why HPCs cannot be responded to with *that is false*. However, those phenomena will be explored later on this dissertation. This chapter is devoted to arguments supporting the claim that HPCs are conditionals.

The chapter is organized as follows: in §3.1 I give an intuitive characterization of the meaning of HPCs. This characterization supports the view of HPCs as conditionals in which only the antecedent is spelled out. In §3.2 I give arguments in favor of HPCs being conditionals spelling out only the antecedent. In §3.3 I investigate and discard the possibility of HPCs being conditionals that only spell out consequents. In §3.4 I justify the absence of (subjunctive) counterfactual morphology in HPCs, despite their counterfactual interpretation, arguing that HPCs are tenseless.

3.1 Intuitive characterization

Let us consider the scenario in (42).

(42) Scenario: You and I are preparing the appetizers for a party tonight. We are talking about María, who you have a crush on:

a. You: Yesterday I met María in the library.

b. Me: Haber-la invitado a la fiesta [HPC]

have.Aux.Inf-cl.Acc invited to the party

'You should have invited her to the party'

The English paraphrase given in (42b) follows Bosque's (1980) translation of HPCs. However, the interpretation of an HPC like (42b) is closer to the paraphrase in (43).

(43) *You moron! How come you did not take the opportunity to invite her? Had you invited her to the party, she would probably have come as you/I wish.*

The paraphrase in (43) indicates that the HPC in (42b) is used as a reproache (more on this in chapter 6). When the speaker utters an HPC, he/she reproaches the addressee for not having done the obvious alternative to what the addressee did. The HPC presents the best alternative to what actually happened that the speaker can come up with in order for the actual world to have had a chance to be according to someone's desires. Those desires in (42) can be either the speaker or the addressee's desires.

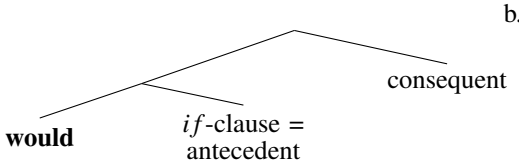
Notice that the HPC can also be uttered in a context in which it is the speaker uttering the HPC who wishes to spend time with María. After the speaker utters (42b) one of two things are true: (i) the speaker wants María to come to the party, or (ii) the speaker thinks that the addressee wants María to come to the party (or maybe both!). The HPC uttered by the speaker expresses the best alternative, given the speaker's knowledge, to make those desires (either his/hers or the addressee's) come true. It is also clear after uttering HPC(α), (42b), that the speaker assumes that α is not true in the actual world: HPCs are counterfactual.

We will investigate why HPCs are *reproaches* and where *obviousness* comes from in HPCs in chapter 6. For now, let's focus only on the conditional interpretation that HPCs have and, for the moment, let's adopt *If you had invited her she might have come making your desires true* as the paraphrase for (42b). We will revise it later.

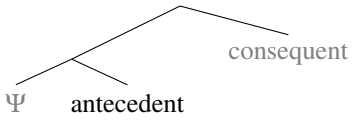
From the above characterization it seems clear that HPCs spell out sufficient conditions for the consequent (i.e. the inferred desires of X) to be true. That is, HPCs behave like hypothetical conditionals. However, the discussion above also points to the conclusion that, so far, we cannot yet claim that the covert modal in HPCs is *would*. In what follows, I will refer to the covert modal in HPCs as Ψ and leave out the discussion of the modal until chapter 4.

In syntactic terms, conditionals are sentences with an adverbial adjunct. The main investigations in syntax involve the different ways of linking the antecedent to the matrix clause. However, what I have to say right now does not concern this problem. I am now only concerned with what happens in the antecedent clause, and what I have to say does not descriminate between the different syntactic analyses argued for in the literature. Therefore, I am going to make use of a simplified syntax for conditionals, (44a), that is often used in the literature. I am proposing the parallel representation for HPCs is in (44b).

(44) a.



b.



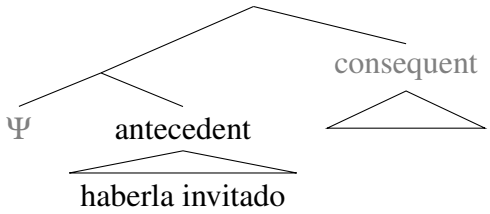
According to (44a) conditionals have a tripartite structure. The modal *would* takes two arguments. The first argument is the antecedent, and the second argument is the consequent. Similarly, according to (44b), HPCs are conditionals in which only the antecedent is spelled out and the consequent is silent. Because the consequent is silent we do not see the modal either, since in Spanish the modal is realized overtly in the verbal morphology in the consequent. To be more concrete, I assume that the HPC in (45a) has the syntactic structure in (45b).[1]

(45) a. Haber-la invitado

have.Inf-her invited

'Had you invited her...'

b.



The proposal in (45b) is that HPCs are conditionals in which only the antecedent is spelled out.

To sum up: I defend a view according to which HPCs spell out the antecedent of a conditional that is counterfactual while the consequent is silent. In §3.2 I give arguments favoring an account of HPCs as conditionals in which only the antecedent is spelled out. In §3.3 I explore and discard the possibility of HPCs being conditionals in which we only hear the consequent. In §3.4 I argue that HPCs are tenseless and that this explains why only the antecedent is spelled out.

3.2 Arguments in favor of a conditional-like analysis of HPCs

In this section I present arguments supporting the claim that HPCs are conditionals spelling out antecedents. We will see that HPCs do not show matrix clause phenomena (Haegeman, 1984, 2003a,b, 2006), §3.2.1, and that other pehnomena we find in HPCsfind very simple explanations if we analyze HPCs conditionals spelling out the antecedent, §3.2.2 and §3.2.3.

---

[1]In identifying the proposition in HPCs, I abstract away from the semantics of aspect. Since HPCs don't spell out the consequent. I use the convention of signaling the absence of an overt consequent with ellipsis dots. However, unlike in other constructions, in the case of HPCs this does not indicate that final intonation is suspended. HPCs have final falling intonation.

3.2.1 Matrix Clause Phenomena

Haegeman (1984, 2003a,b, 2006, a.o.) argues in favor of a taxonomy of adverbial clauses distinguishing between *discourse-related adverbial clauses*, what she calls 'peripheral adverbial clauses', and *event-related adverbial clauses*, labeled 'central adverbial clauses'. According to Haegeman, there are also two kinds of conditional clauses, (i) "conditional clauses restricting the event or state of affairs expressed in the main clause" (central adverbial clauses), (46a), (ii) "and conditionals that serve to make manifest a priviledged discourse context which is part of the modal base (in the sense of Speas 2004b,a)" (peripheral adverbial clauses), (46b).[2]

(46) a. If it (*probably) rains you will get well

b. If you are probably going to move soon, there's no point in getting a broad band connection at home

(Haegeman, 2006, ex. (1b-c))

Haegeman argues that those two kinds of conditionals differ in that conditional clauses restricting the event or state of affairs expressed in the main clause are a reduced CP, i.e. they have less functional structure than the 'discourse related conditionals'. However, discourse related conditionals are CPs with all functional projections.[3] In particular, event related conditionals will forbid speaker-oriented adverbials, like in (46a). Another example from Haegeman (2006) in (47), which illustrates that speaker oriented adverbials are not possible in centrals adverbial clauses, in particular, in certain conditionals.[4]

(47) *If apparently you cannot reach her later this week, you will have to give me a call

(Haegeman, 2006, ex. (6b))

Root-clauses, on the other hand, can have speaker oriented adverbials. The possibility of having speaker oriented adverbs is one of the *Main Clause Phenomena* (MCPs), that is, phenomena taking place in clauses with full functional structure and, in particular, expected in root-clauses.[5]

---

[2]There is supposed not to be a comma between the speaker-oriented adverb and the rest of the clause. As Haegeman points out, "the adverbial is supposed to be prosodically integrated in the adverbial clause, which itself is also not set off by comma intonation.

[3]Central adverbial clauses, according to Haegeman (2006), are integrated in the IP level, whereas peripheral adverbial clauses are adjoined at a much later point the derivation.

[4]The distinction made by Haegeman seems to agree with the distinction between *aboutness* topics, topics that are the subject of the predication of the clause, like *the baker* in *The baker married the florist*, and frame-setting topics, namely topics that restrict the domain of reality with regard to which the truth of the main clause is evaluated, like *healthwise* in *Healthwise the baker is fine* (examples and definitions from Repp 2010).

[5]In particular, Haegeman's (2006) claim is that "conjunctions introducing adverbial clauses, such as *if, while,* and *since*, may reslect reduced CPs, in which case, such clauses lack main clause phenomena (MCP)".

I argue that HPCs are conditional clauses spelling out only the antecedent. If this is the case, we may expect to see the same impossibility of having speaker oriented adverbials in HPCs, i.e. the absence of MCPs, as we do observe them in event oriented conditionals, and contrary to what we should observe in root-clauses. In (48) we can see the case of Spanish. (48a) illustrates the impossibility of having discourse oriented adverbs in HPCs, and (48b) illustrates the case of conditionals with central adverbial clauses. These contrast with the behavior of Spanish root clauses, (48c), and peripheral adverbial clauses, (48d).

(48) a. A: Oh! Podría haber ahorrado un montón de dinero

oh! could.1.sg have.aux.Inf saved a lot of money
'Oh! I could have saved so much money!

B: (*Obviamente) haber comprado la tarta mañana

obviously have.aux.Inf bought the cake tomorrow

b. * Si obviamente hubieras comprado la tarta mañana, te

if obviously had bouth the cake tomorrow cl.2.sg.Dat

habrías ahorrado mucho dinero

would have saved lots of money

c. Obviamente tendrías que haber comprado la tarta mañana

obviously had.2.sg.Pot to have.aux.Inf bought the cake tomorrow
'Obviusly you would have had to buy the cake tomorrow'

d. Si obviamente vas a comprar la tarta hoy, te voy a

if boviously are going to.2.sg buy the cake today cl.2.sg.Dat go.1.sg to

dar dinero

give money
'If obviously you are going to buy the cake today, I am going to give you some money'

The example in (48a) illustrates that HPCs do not accept speaker oriented adverbials. The same is observed in conditionals in which both the antecedent and the consequent are spelled-out, and in which the antecedent clause is a central adverbial clause, (48b). However, in the case of root clauses such adverbials are accepted, (48c). These adverbials are

also accpeted in Spanish conditionals in which the adjunct clause is a peripheral adverbial clause (in Haegeman's (2006) terms), (48d).[6]

Haegeman (2006) points out some other MCPs that we do not see in central adverbial clauses. One such phenomenon is *argument fronting*, which, in English, is restricted to root clauses, whereas adjunct clauses are not subject to this restriction (see the contrast between (49a) and (49b), and (50a) and (50b)).

(49) a. * If these exams you don't pass, you won't get the degree.

b. If next week you cannot get hold of me on Monday, try again later.

(50) a. * While her book Mary was writing this time last year, her children were staying with her mother

b. While around this time last year Mary was writing her book, her children were staying with her mother

(Haegeman, 2006, ex. (9)-(10))

The attempt to front an argument in the conditionals in (49a) results in ungrammaticality, whereas the fronting of an adjunct is fine, (49b). The same is observed in (50a) and (50b).

The same phenomena can be observed in Spanish. OVS word order in Spanish is possible only in very specific conditions. The examples in (51) include a fronted instrument rather than a direct object to increase naturalness.

(51) a. HPC *and argument fronting*

*? Con unos alicates haber abierto la ventana mientras era todavía

with a pliers have.aux.Inf opened the window while it was

de noche

still of night

b. HPC *and adjunct fronting*

---

[6]Picking up again the discussion regarding the possibility of HPCs spelling out consequents, notice that conditionals in which the consequent is an infinitival participle perfect clause, discourse adverbs are available.

(1) (Obviamente) Si querías que Juan te ayudara, (obviamente) haber comprado la tarta
obviously if wanted that John cl.2.Dat help.2.sg.Subj obviously have.Inf bought the cake
mañana
tomorrow
'If you wanted John to help you, you should have bought the cake tomorrow'

Mientras era todavía de noche haber abierto la ventana con unos
while was still of night have.aux.Inf opened the window with a
alicates
pliers
'While it was still night you should have opened the window with a pliers'

c. *Central adverbial clauses*[7] *and argument fronting*[8]
*? Si con unos alicates hubieras abierto la ventana mientras era todavía
if with a pliers had opened the window while was still
de noche, no habrías necesitado buscar el otro juego de llaves
of night neg would have needed look for the other set of keys

d. *Central adverbial clauses and adjunct fronting*
Si mientras era todavía de noche hubieras abierto la ventana con unos
if while was still of night had opened the window with a
alicates, no habrías necesitado buscar el otro juego de llaves
pliers neg would have needed look for the other set of keys
'If while it was still night you had opened the window using pliers, you would have not needed the other set of keys'

The contrast between (51a) and (51b), and (51c) and (50b) illustrates that, as in English, in Spanish central adverbial clauses cannot contain a fronted argument, whereas the fronting of an adjunct is fine. However, (52) shows that root clauses and peripheral adverbial clauses accept argument fronting.

(52) a. *Peripheral adverbial clauses*[9] *and argument fronting*
Si con unos alicates abrieras la ventana, las llaves de casa están encima
if with a pliers open the window neg the keys of the house
de la mesa
are on of the table

[7]Here illustrated with counterfactual conditionals

[8]In counterfactual conditionals, the antecedent is an aboutness topic.

[9]Notice that conditionals with peripheral adverbial clauses correspond to relevance conditionals, in which the antecedent of this conditionals is a relevance topic.

'If with some pliers you open the door, the house keys are on the table '

b. *Peripheral adverbial clauses and adjunct fronting*

Con unos alicates tendrías que haber sido capaz de abrir la

With a pliers had to have.aux.Inf been able of open.Inf the

ventana

window

'With pliers you would have had to be able to open the window'

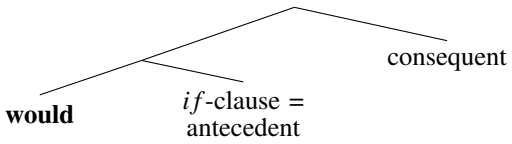
I do not here endorse an explanation for why MCPs exist. The important point made in this section is that MCPs suggest that HPCs are not root-clauses.

3.2.2 Conditionals with subject-auxiliary inversion in the antecedent

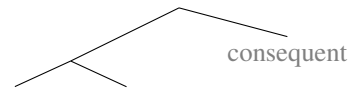
In this section I will argue that the clause spelled out in an HPC is the antecedent of a conditional. The main arguments in this section will come from the comparison between HPCs and Spanish conditionals with subject-auxiliary inversion in the antecedent (I will refer to these antecedents as inverted antecedents following Iatridou and Embick 1994).

I will adopt a simplified proposal for counterfactuals, (53a), and the parallel proposal for HPCs is in (53b).

(53) a.



b.



This account supports the interpretation of HPCs, intuitively expressed in (54).[10]

(54) HPC(α)= If α had happened, the actual world would be according to X's desires. [Where X can be either the speaker or the addressee or a 3^{rd} person]

This proposal explains why HPCs are replies: the consequent in HPCs has to be retrieved from the context, either from the previous utterance or inferred from the background.[11]

---

[10]I leave aside for now the explanation of why HPCs are used as *reproaches* and where the sense of *obviousness* come from.

[11]This background is not necessarily the common ground. This is seen in cases like (42) when the addressee does not need to know that the speaker, uttering the HPC, wants María to come before the utterance of the HPC.

Only once the discourse context is set up in a way in which the consequent of HPCs can be retrieved (see chapter 6), HPCs can be uttered.

An argument in favor of analyzing the clauses spelled out in HPCs as antecedents of conditionals comes from the fact that they bear some similarity to examples like (55), which have tense and mood morphology.[12]

(55) Hubieras salido antes ...

have.2.sg.Subj left earlier

The example in (55) can be uttered on its own. However, it is a characteristic antecedent for an overt counterfactual (see (57b)). It does not have *si* ('if'), but it could be compared to conditionals with subject-auxiliary inversion in English:

(56) Had you left earlier... (you would have arrived on time)

The sentence in (56) is an inverted antecedent. This construction has been given an analysis in which there is I-to-C movement (Pesetsky, 1989; Iatridou and Embick, 1994).[13]

Examples like (55) are telling for two reasons: (i) they are antecedents of conditionals, so a comparison with HPCs is important since I argue that HPCs are conditionals, and (ii) they will be argued to involve subject-auxiliary inversion which will also be extended to HPCs. I will begin by presenting arguments establishing a structural difference between antecedents with *if* and antecedents without *if*. The first comes from the distributions of pronouns:

(57) a. Counterfactual with *if*

i. Si (tú) hubieras salido antes, habrías llegado a tiempo

if you had left earlier would-have arrived on time

'If you had left earlier, you would have arrived on time'

b. Counterfactual without *if*

i. (*tú) Hubieras salido antes, habrías llegado a tiempo

(you) had left earlier would-have arrived on time

ii. ? Hubieras tú salido antes, habrías llegado a tiempo

had you left earlier would-have arrived on time

[12]The ellispis dots in (55) indicate a final intonation with a continuation rise. This kind of intonation signals that something else follows in the sentence (the consequent in this case), and leaves to the addressee the task of providing the content. The consequent is treated as discourse old and is easily recoverable to the addressee. Indeed, as we will see in in the next chapters, in order for an HPC to be felicitous, the consequent has to be easily recoverable.

[13]We will see this in detail in chapter 6.

iii. Hubieras salido tú antes, habrías llegado a tiempo

had left you earlier would-have arrived on time
'Had you left earlier, you would have arrived on time'

The pattern observed regarding the distribution of pronouns with respect to the verb differs between (57a-i) and (57b-i-ii). In (57a-i) the pronoun can appear before the verb, however this is impossible if *si* ('if') is not present. When we do not find *if*, the pronoun cannot appear before the auxiliary. Some speakers do not accept its appearance between the auxiliary and the lexical verb, (57b-ii). It can, however, appear after the lexical verb. The same pattern of pronoun distribution that we observe in antecedents without *if* can be observed in HPCs, (58).

(58) a. (*tú) haber salido antes

(you) have left earlier

b. ? Haber (tú) salido antes

have.Inf you left earlier

c. Haber salido (tú) antes

have.Inf left (you) earlier
'Had you left earlier..'

As in the case of conditionals with inverted antecedents, HPCs do not accept pronouns at the front.

Having observed these similarities, let us now turn to the arguments that support the claim that the sentences in (57b-i-iii) have *inverted antecedents*, which will also be extended to HPCs. Iatridou and Embick (1994) notice that uninverted and inverted conditionals differ with respect to the possibility of having focus adverbs like *only* and *even*.[14]

(59) a. Even if she had been allergic to dill, he would (still) have served the stuffed grape leaves

b. Only if Peter had come would Susan have left

(60) a. * Only had I thought that he was sick would I have called him

b. ? Even had Joe served truffles Kathy would not have been happy.

(Iatridou and Embick, 1994, ex. 20-21)

(60) shows that uninverted conditional antecedents accept modification by focus adverbs, whereas inverted antecedents do not. Furthermore, Iatridou and Embick point out that in

[14]I will provide and explanation for these facts in chapter 6.

all the languages with conditional inversion that they have investigated, this contrast is present. They do not look at Spanish. However, this contrast is also observed in Spanish, cf. (61) and (62).

(61) a. Incluso si ella hubiera sido alérgica al eneldo, él hubiera servido las hojas
even if she had been allergic to dill he had served the leaves
de parra rellenas
of grape suffed
'Even if she had been allergic to dill, he would have served the stuffed grape leaves'

b. Sólo si Pedro hubiera venido, Susana se hubiera marchado
only if Peter had left Susan cl.3.sg had left
'Only if Peter had come would Susan have left'

(62) a. * Sólo hubiera pensado yo que él estaba enfermo, le hubiera
only had thought I that he was sick cl.3.sg.Dat had
llamado
called

b. * Incluso hubiera servido Juan trufas, Kathy no habría estado contenta
even had served John truffles Kathy neg would-have been happy

Looking at the contrast between (61) and (62), we can see that, as in English, there is a contrast between antecedents of conditionals with *si* ('if'), and antecedents of conditionals without *si*.

Interestingly, the same pattern observed for clauses with antecedents without *si* is observed in HPCs.

(63) a. A: I am sorry I am late.
B:* Incluso haber salido antes.
even have.Aux.Inf left earlier
B:* Sólo haber salido antes
only have left earlier

In (63) we can observe that, as in the case of inverted antecedents in (62), we cannot have focus adverbs with HPCs. This adds to the arguments supporting the idea that HPCs spell out inverted antecedents.

Iatridou and Embick (1994) account for the absence of focus adverbs by arguing that inverted antecedents are *old information* and, thus, cannot be focused. Since inverted antecedents cannot be focused, they do not allow focus adverbs. Moreover, the claim that inverted antecedents involve old information also explains the intuition that they cannot be uttered out of the blue.[15] This idea is also taken up in Horn (2000b), who claims that inversion is licensed for pragmatic reasons. The inversion of an element marks it as pragmatically presupposed, "in particular as salient, 'Chafe given' (Prince, 1981) or consciousness-presupposed (Lambrecht, 1994)." Horn takes a slightly different view than Iatridou & Embick. He characterizes the interpretation of uninverted antecedents with *even* and *only* as below in (64).

(64) a. In **Only if P, Q**, the truth of P is a necessary condition for the truth of Q.
b. In **Even if P, Q**, the truth of P is irrelevant to the truth of Q.

Horn claims that since **Only if P, Q** cannot be backgrounded, it does not allow inversion, while **Even if P, Q** can be backgrounded and, thus, it allows inversion. Horn (2000b) considers that *even* can appear in inverted conditionals, and points out the example in (65).

(65) Even had this match been struck, it (still) wouldn't have lit.

(Goodman, 1947)

Horn's explanation of the inversion facts is that "antecedents which constitute necessary or sufficient conditions (as in (66a) and (66b) respectively) appear only in canonical form; antecedents whose truth-value is either irrelevant or established as false (as in (66c) and (66d) respectively) can be reduced and inverted."

(66) a. * Only had this match been struck, it would have lit
b. * Is this match struck, it will light [i.e. If the match is struck, it will light]
c. Even had this match been struck, it (still) wouldn't have lit (Goodman, 1947)
d. Had this match been struck, it would have lit

---

[15] Iatridou and Embick (1994) consider the following scenario based on a suggestion by Eric Reuland: "You arrive at the house of friends, who know that you have just been to a job interview but do not know the results. Uttering (ia) at the dinner table, would be a (characteristically witty) potential conversational move, but (ib) would, as Bernhard Rohrbacher (p.c.) put it, leave some of the people present wondering why they had been left out on a previous announcement about the interview results:" ?

(i) a. If I had been offered the job, I would have brought champagne
b. Had I been offered the job, I would have brought champagne

(Iatridou and Embick, 1994, pg. 200, ex. (45))

All the examples in (66) have inverted antecedents. *Even* in (66c) does not signal new information. In the case of (66d), the antecedent might have been already established as false. According to Horn, if the antecedent has been already established as false, it constitutes old information.

Whether we adopt Iatridou & Embick's proposal or the slightly different proposal by Horn, the conclusion is that inverted and non-inverted antecedents differ with respect to the distributions of certain adverbs. This is also observed in Spanish and, more importantly, it is observed in HPCs.

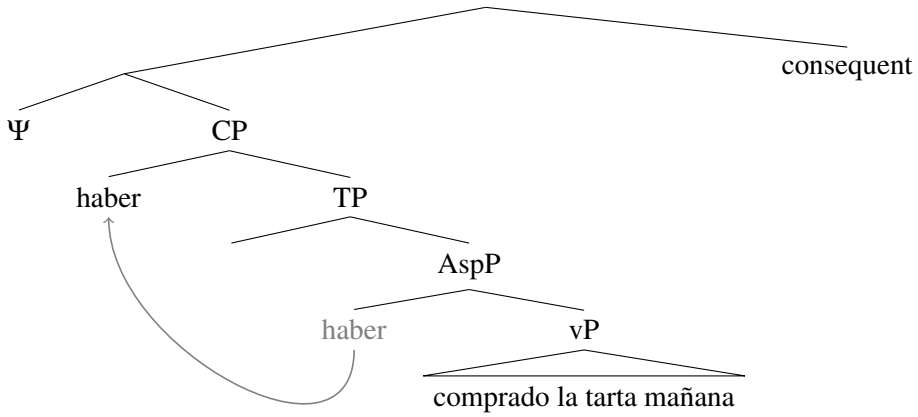
On the hypothesis that HPCs have inverted antecedents,[16] the syntax of HPCs is in (67b) where movement is considered.

(67) a. Haber comprado (tú) la tarta mañana.

have.Aux.Inf bought you the cake tomorrow

'Had you bought the cake tomorrow...'

b.



The discussion above argues in favor of a conditional analysis of HPCs. However, a question arises at this point. Why don't we find the non-inverted version? Conditionals with inverted antecedents always have non-inverted counterparts.

(68) a. Hubieras venido antes, las consecuencias no habrían sido tan

have.2.sg.subj come earlier the consequences neg hav.3.pl.Pot been so

desastrosas

disastrous

[16]Further similarities regarding the meaning of inversion in Spanish will be provided in chapter 6.

'Had you come earlier, the consequences would have not been so disastrous'

b. Si hubieras venido antes, las consequencias no habrían sido tan

if have.2.sg.subj come earlier the consequences neg hav.3.pl.Pot been so

desastrosas

disastrous

'If you had come earlier, the consequences wouldn't have come so disastrous'

(69) a. Haber venido antes

have.Aux.Inf come earlier

'Had you arrived earlier...'

b. * Si haber venido antes

if have.Inf.Aux come earlier

It does not seem that a syntactic explanation alone can account for the impossibility of having a non-inverted version of HPCs. We saw above that antecedents whose truth-value is either irrelevant or established as false can be inverted. In chapter 6 I will argue that inversion is a crucial ingredient to understanding why HPCs are reproaches and why HPC(α) indicates that α is the *obvious* alternative to what happened that would have made the speaker or addressee's desires true. We will see at that point why it is not possible to have HPCs with *if*.

In this section I have defended a view according to which HPCs have inverted antecedents. In the next section I examine and discard the possibility of HPCs being conditionals spelling out the consequent (instead of the antecedent, as I have been arguing so far).

3.2.3 Licensing Free-choice items

We have seen above arguments that parallel HPCs with conditionals and, in particular, with the behavior of antecedents of conditionals. However, we have not yet seen arguments arguing that HPCs do not behave like regular matrix clauses. Such an argument can be found by looking at free-choice items.

Free-choice items, like *any*, are not possible in matrix clauses in episodic sentences. However, free-choice items are licensed in antecedent clauses, (70). The intended reading in (70a) is the episodic reading.

(70) a. * John talked to any student

b. If John talked to any student, he surely wasn't picky

The same pattern seems to be observed in Spanish, (71). *Cualquier*, Spanish *any*, is also a free-choice item; the examples in (71) are parallel to the English examples in (70).

(71) a. *Juan habló con cualquier estudiante

John talked with any student

b. Si Juan habló con cualquier estudiante, seguro que no fue muy selectivo

if John talked with any student surely that neg was very picky

'If John talked to any student, he surely was not very picky'

A further argument in favor of HPCs being antecedents of conditionals comes from the parallelism with respect to free choice licensing between antecedents of regular conditionals like (71b) and HPCs. Again, the intended reading is the episodic reading.

(72) a. * Tú hablaste con cualquier estudiante

you talked with any student

b. Haber hablado con cualquier estudiante [HPC with free choice item]

have.Inf talked with any student

'Had you talked with any student...1'

The sentences in (72) illustrates how free-choice *cualquier* is not licensed in matrix clauses, but it is licensed in HPCs, as it is licensed in regular antecedents of conditionals, (71). These facts argue in favor of HPCs being antecedents of conditionals and not matrix clauses.

3.2.4 Summary

In this section I have presented arguments supporting the claim that HPCs are not root-clauses. We saw that we do not observe main clause phenomena (Haegeman, 1984, 2003a,b, 2006) in HPCs, as we do not observe them in event related adverbial clauses. Furthermore, we observed that if we analyze HPCs as conditionals, we find an explanation to the distribution of pronouns and the behavior of free-choice items. I have also argued that the antecedent clause in HPCs involves subject-auxiliary inversion.

There are further arguments supporting the idea of HPCs as conditionals spelling out only the antecedent. However, those arguments refer to the semantics of HPCs and conditionals in general. Such arguments illustrate that the semantics of HPCs needs to be quantificational. We will see this in depth in chapter 4.

3.3 Entertaining a possibility: HPCs spell out consequents

In the previous section, I have described the hypothesis that HPCs are conditionals with antecedents involving auxiliary-subject inversion. However, one option that also comes to mind when first approaching HPCs is that they are conditionals spelling out the consequent. In this section I investigate this possibility and argue that this is not the case.

Recall that I will refer as HPC(α) to HPCs whose overt material is the proposition α.

(73) a. Haber -la invitado

have.Aux.Inf -cl.Acc invited

b. HPC(α) = HPC(**you invite her**)

The analysis of *would*-counterfactuals is one in which *would* quantifies over possible worlds, and similarity with the evaluation world is responsible for identifying the quantificational domain. The proposition corresponding to the *if*-clause helps to restrict the domain of quantification of the modal, and the proposition corresponding to the consequent serves as the nuclear scope.

If HPCs are taken to spell out antecedents, this means that the proposition spelled out in HPCs are restrictors. The proposition spelled out in the antecedent specifies the domain of quantification of the covert modal Ψ. Setting aside the final denotation given to Ψ, intuitively, the interpretation of HPC(α) is one in which Ψ quantifies over worlds in which α is true (α restricts the domain of quantification).

However, could it be the other way around? Could HPCs be the consequent of a conditional? (i.e. the nuclear scope). On the face of it, this looks like a plausible hypothesis. It is usual that the consequent of a conditionals is spelled out while the antecedent remains silent. And there are well known constructions that, at first sight, would seem to be similar in meaning to the meaning of HPCs.

It is well known that the consequent of a conditional can be uttered by itself (Bhatt and Pancheva, 2006).

(74) a. If it is sunny, then I will go to the park

b. Then I will go to the park

(Bhatt and Pancheva, 2006, ex. 124)

When the consequent is uttered by itself, the conditional interpretation can be recovered from the context. From this perspective, the study of HPCs can be seen as the study of what happens when the opposite case is true: the antecedent of the conditional stands on its own.

An account of HPCs as conditionals spelling out consequents would have a paraphrase like (75a), exemplified in (75b). Recall that HPCs involve desires and thus the antecedent needs to invoke them.

(75) a. Si querías β, haber hecho α

if wanted β have.Aux.Inf done α

'If you wanted β to be true, you should/could/ought to have done α'

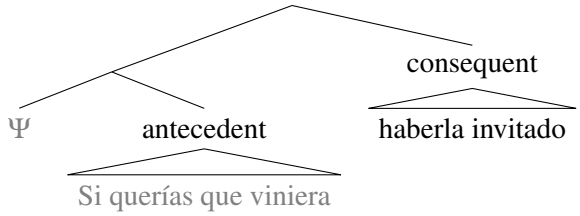
b. Si querías ver-la, haber-la invitado

if wanted see-cl.Acc have.Aux.Inf-cl.Acc invited

'If you wanted to see her, you should/could/ought to have invited her'

The sentence in (75a) is a conditional whose consequent looks like an HPC: the surface form of the consequent is exactly the same surface of the clause spelled out in HPCs. The picture arising is (76).

(76)



However, if one understands that HPCs involve covert modality, one could claim that there is a covert *tendrías que* ('had to') before the infinitival auxiliary.

(77) Si querías β, (tendrías que) haber hecho α

if wanted.2.sg β had to have.Inf done α

The question is whether the semantics of (75a), or (77), is the same semantics found in HPCs, and whether the syntactic structure of the consequent in (75a) has the same syntax in HPCs. As indicated in the English paraphrase, the Spanish construction in (75a) is parallel to the constructions found in Saebø (1986, 2001); von Fintel and Iatridou (2005, 2008), (78).

(78) If you want to go to Harlem, you have to take the A train.

Constructions like (78) are known as Anankastic conditionals:[17] conditionals involving goals. The proposition expressed in the consequent of Anankastic conditionals is necessary to achieve the goal expressed in the antecedent.

In what follows, I argue that HPCs do not spell out consequents. I start by looking at the semantic interpretation of HPCs when they are assumed to spell out consequents, and we will see that this leads to problems.

3.3.1 Restrictors Vs. Nuclear Scopes

Let us start by examining the semantics. The conditional in (75b) has to do with desires specifically having to do with María. Considering only this desire, the two possibilities (HPCs spelling out consequents, or HPCs spelling out antecedents) are in (79) and (80).

(79) HPCs spell out consequents

[17] The term *Anankastic Conditional* is due to von Wright (1963)

a. Haber-la invitado

have.Aux.Inf-cl.Acc invited

i. ANTECEDENT: your desires towards María become true

ii. CONSEQUENT: you invited her

(80) HPCs spell out antecedents

a. Haber-la invitado

have.Aux.Inf-cl.Acc invited

i. ANTECEDENT: you invited her

ii. CONSEQUENT: your desires towards María become true

The interpretation in which HPCs spell out consequents is one in which we quantify over worlds in which your desires become true, and they are all worlds in which you invited her. However, the interpretation in which HPCs are antecedents is one in which we quantify over worlds in which you invite her.

It should be possible to tease apart the possibilities of HPCs spelling out antecedents or consequents of conditionals from the difference between restrictors and nuclear scopes. The scenario in (81), repeated from (4), is designed with this purpose.

(81) You are about to make your first soufflé and your friend John is a soufflé expert. It would be nice if he helped you out, but he is away. You think that John will be for sure back in town next Tuesday, but your friend Sarah knows that, indeed, he is getting to town tomorrow, Thursday. Since you do not want to wait until next Tuesday, you go ahead and make the soufflé. It did not turn out very well and you regret not having had some help. Then your friend Sarah says:

a. Haber hecho el soufflé el martes que viene.

have.Aux.Inf done the soufflé the Tuesday that comes

'Deal with it! Had you done your soufflé next Tuesday'

b. Si querías que John te ayudara, (tendrías que) haber hecho el

if wanted that John cl.2.sg help.3.Subj have to.2.sg have.Inf done the

soufflé el martes que viene

soufflé the Tuesday that come.3.sg.Subj

'If you wanted John to help you, you had to have made your first soufflé next Tuesday'

I am considering a theory of conditionals in which modals are quantifiers over possible worlds, *if*-clauses are restrictors of the domain of quantification, and the consequent is

the nuclear scope (Lewis, 1973; Kratzer, 1977; Heim, 1982). Under these assumptions, in (81b), the domain of quantification is restricted to those worlds in which the addressee gets help from John. On the other hand, if we consider that HPCs spell out antecedents, the domain of quantification in (81a) is the set of worlds in which the addressee makes the soufflé next Tuesday. The semantics of the conditional in (81a) (à la Lewis-Stalnaker) states that the worlds most similar to the actual world in which you make the soufflé on Tuesday are worlds in which the addressee's desires are fulfilled. The utterance of (81a), given the described state of affairs, is perfectly fine. However, Sarah could not have uttered (81b) is she knew that you could have gotten help from John as early as tomorrow. It is not the case that, in all the most similar worlds to the actual world in which John helps you, you do your soufflé next Tuesday. If you had done your soufflé tomorrow, he would have been able to help you too. The difference between (81a) and (81b) argues against HPCs being conditionals in which the consequent is spelled out. Notice that the point is not made just because of the particular antecedent I chose. One could explore a range different antecedents, but what makes the point here is having a universal modal and the reference to the particular day, Tuesday, in the consequent. The only possible reading of HPCs involves universal modals. The conditional in which the clause spelled out in the HPC is taken to be a consequent signals that the goal expressed in the consequent would have been brought about only if the addressee had made the soufflé on Tuesday.

3.3.2 The time of desire

Another difference between HPCs and conditionals like (75a) involves to the time at which the desires to be fulfilled have to hold: HPCs are tied to desires holding at the time of utterance. However, that is not the case with constructions like (75a). To see this, consider the scenario in (82), which is a more elaborated version of (48a) above.

(82) Scenario: You are in charge of getting the cake for tomorrow's party. You want to buy the cake today, so you can make sure that the cake situation is under control. However, your roommate John keeps telling you that there is no need to hurry and insists that you can do that tomorrow. However, you are sort of a control freak and go ahead and buy the cake. You get home with the cake right when the radio announces that the bakery where you got the cake is having a 75% off sale tomorrow.

a. YOU: Oh! I could have saved so much money!
JOHN: Haber comprado la tarta manñana
have.Aux.Inf bought the cake tomorrow

b. JOHN': Si querías ahorrar-te dinero, (tendrías que)
if wanted.2.sg save-cl.2.sg.Dat money had to
haber comprado la tarta mañana
have.Aux.Inf bought the cake tomorrow

The utterance of HPC in the scenario in (82) is perfectly fine. However, the conditional in (82b) cannot be uttered in this scenario: (82b) assumes that there was a past time in which the addressee wanted to save some money. However, there was no time in the past in which the addressee wanted/entertained the possibility of saving any money. This possibility just came out when you heard the news once you had already bought the cake. Things do not get better if we change the tense in the antecedent of (82b) to present, (83) is ungrammatical.

(83) * Si quieres ahorrar-te dinero, (tendrías que) haber
if want.Present.2.sg save-cl.2.sg.Dat money had to have.Aux.Inf
comprado la tarta mañana
bought the cake tomorrow

HPC(α) suggest that if α had happened, X's desires at the time of utterance would have had a chance to be true in the actual world (and it is assumed that it did not happen).

Examples like (82) shows that the structure in (75a) can be used for desires held in the past. The example in (84) shows that the structure in (75a) can also be used when the desires held in the past but do not hold in the present.

(84) Si querías que viniera, (tendrías que) haberla invitado a la
if wanted.2.sg that came had to have.Aux.Inf-cl.Acc invited to the
fiesta, pero menos mal que no lo hiciste, porque viendo cómo la odias
party, but thank god that neg cl.Acc did, because seeing how cl.Acc hate
ahora, hubiera sido una noche terrible.
now had been a night awful
'If (yesterday) you wanted her to come, you should have invited her to the party. However, thank God yo didn't!, because I can see that now you hate her, and it would have been a terrible night'

However, HPCs are always tied to desires holding at the time of utterance. When the speaker utters *Haberla invitado a la fiesta*, she always assumes that the desires of seeing her hold at the time of utterance.

Let us look at another example in which the desires hold only at the speech time but certainly did not hold in the past. In this scenario, HPCs are fine, but conditionals with an infinitival participle clause are not.

(85) Cindy goes shopping with her mother, Laura, and decides to buy a white dress to please her boyfriend instead of the blue dress that she really likes, despite her mother's advice to please herself. When she comes home she finds a message in the answering machine from her boyfriend canceling their date because he is going out with his friends. Cindy is very angry and regrets having bought a dress just to please John. Now, she only wants to annoy him.

Laura$_1$: Haberte comprado el azul.
have.Inf.-cl.2.Dat bought the blue

Laura$_2$: Si querías fastidiar a John, haberte comprado el
if wanted.2.sg.past annoy to John, have.Inf.-cl.2.sg.Dat bouth the
azul
blue
'If you wanted to annoy John, you should have bought the blue one'

Laura$_1$'s utterance, an HPC, is perfectly fine. At the time of utterance, Cindy wants to annoy John (and reveals her desire to her mother), regardless of her will to please him when she bought the dress. However, Laura$_2$'s utterance is not felicitous. The desire expressed by Laura$_2$'s utterance is tied to the past, and it is not true that when Cindy bought the dress she wanted to annoy her boyfriend. Examples like (85) show that, in HPCs, the desire is tied to the time of utterance, but this is not necessarily the case for conditionals with infinitival participle clauses in the consequent.

3.3.3 Counterfactuality

Another difference between the structure in (75a) and HPCs is related to counterfactuality. I have mentioned above that when the speaker utters HPC(α) he/she assumes that α is false in the actual world. However, with constructions like (75a) (exemplified below) that is not necessarily true.

(86) (Por supuesto,) Si querías que viniera, (tendrías que) haberla
of course if wanted.2.sg.Past that came had to have.Aux.Inf
invitado, como de hecho hiciste.
invited as of fact did.2.sg.Past

'(Obviously,) If you wanted her to come, you should/could/had to have invited her, as you did, indeed'

Counterfactuality in HPCs is not cancelable (we will return to this in chapter 5). However, it is cancelable in Anankastic conditionals.

3.3.4 Focus adverbs

Having compared HPCs with constructions like (75a) (in which a clause with an auxiliary in infinitival form and a participle clause is the overt consequent), I now turn to a second difference, related to focus adverbs. We have already seen above that HPCs do not accept these adverbs.

(87) a. * Sólo haber-la invitado
only have.Aux.Inf-cl.Acc invited

b. * Incluso haber-la invitado
even have.Aux.Inf-cl.Acc invited

However, focus adverbs are possible in constructions like (75a), exemplified below.

(88) a. Si querías que viniera, sólo (tendrías que) haber-la
if wanted that came.3.sg.Subj only had to have.Aux.Inf-cl.Acc
invitado
invited
'If you wanted her to come, you only had to invite her'

b. Si querías que viniera, incluso (podrías) haberla invitado
if wanted that came.3.sg.Subj even could have.Aux.Inf-cl.Acc invited
'If you wanted her to come, you could even have invited her'[18]

The contrast between (87) and (88) argues in favor of a different analysis for HPCs and the Anankastic-like constructions.

3.3.5 Summary

In the previous section argued that HPCs are conditionals whose consequent is not spelled out, and whose antecedent is inverted. However, considering the interpretation alone, a possibility that one may entertain is that HPCs are similar to Anankastic conditionals, characterized by spelling out a goal in the antecedent that is achieved in which the

[18]Notice that the modal force varies with respect to the focus particle: *even*, unlike *only*, does not allow a universal modal.

worlds in the consequent is true. We have seen that such an analysis is not suitable for HPCs. HPCs differ from Anankastic conditionals with respect to truth conditions, the relationship between the time at which desires hold, counterfactuality and focus adverbs. Those arguments support the claim that HPCs are not conditionals spelling out the consequent but rather, they spell out the antecedent.

3.4 HPCs are tenseless

I have argued that HPCs are conditionals with a counterfactual reading in which only the antecedent is spelled out. However, an obvious question is why, if they have a counterfactual reading, we do not find the regular (subjunctive) counterfactual morphology we usually find in antecedents of counterfactual conditionals. Recall that HPCs do not have any tense morphology in the auxiliary, (89).

(89) Haber salido antes

have.Inf left earlier
'Had you left earlier...'

In what follows I argue that the lack of subjunctive morphology in the antecedent is due to the lack of a tense. Since there is no tense , there is no way of obtaining subjunctive morphology since there are no non-tensed subjunctives.

Arregui (2004, 2007, 2009) argues that the morphology in the antecedent of counterfactuals reflects the tense of the matrix clause. She further argues that the tense marking in the antecedent clause in *would*-conditionals does not have the meaning of regular deictic tense, despite having the same marking as regular deictic tense. To see this, let's look at (90), which Arregui cites from *The Cambridge Grammar of the English Language* (2002).[19]

(90) **Remote conditionals**

a. If he was here, he would be upstairs

b. If you went tomorrow, you would see Ed

(Arregui, 2004, ex. 3)

The antecedent of (90) has past morphology, and yet the temporal reference is made to the speech time or to the future. This illustrates how the past morphology in the antecedent does not refer to a past reference time, i.e. the past morphology in the antecedent lacks the

[19] *Would*-conditionals are labelled as *remote* conditionals in *The Cambridge Grammar of the English Language* (2002). This label tries to capture the intuitions regarding the nature of the condition in the antecedent clause (an unlikely condition) as well as the interpretation of the tense and aspect morphology.

past semantic interpretation. The *Cambridge Grammar* refers to the past tense in (90) as *modal remoteness*.

The same facts are presented by Dudman (1984) (cited in Arregui 2009).

(91)

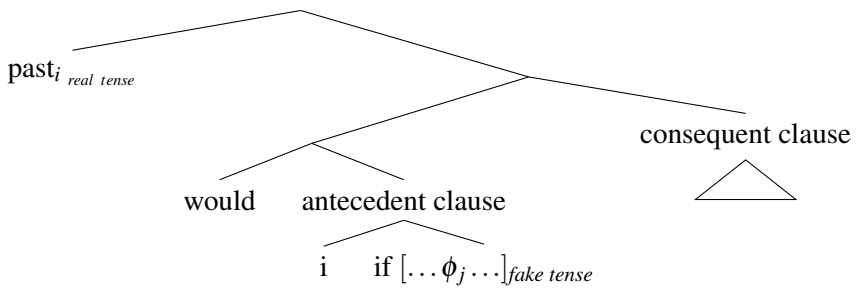
V-ed	present	If Her Majesty was here now, she would be revolted
had V-en	future	If Grannie had missed the last bus on Friday (next Friday), she would have walked home (*she is actually dead*[20])
	present	If her Majesty had been here now, she would have been revolted
	past	If Grannie had missed the last bus on Friday (last Friday), she would have walked home (*luckily, she caught it*)

Again, in (91) the antecedent clause seems to have past morphology, despite the fact that there is no past meaning in the antecedent. The eventualities presented in the antecedent can be located in the past, present or future.

Arregui proposes that the tense morphology in the antecedent of counterfactuals is better understood as a case of *sequence of tense* (Enç, 1987; Zagona, 1995; Stowell, 1996; Ogihara, 1996; Abusch, 1997; Kusumoto, 1998; Kratzer, 1998). The literature regarding tense in embedded contexts notes that when tense is in the syntactic domain of another tense that carries the deictic meaning the embedded tense can be bleached of their deictic meaning. Arregui extends this explanation to conditionals and tense in the antecedents of conditionals.

Arregui adopts a referential approach to tense according to which tenses are referential expressions akin to pronouns (Partee, 1973; Kratzer, 1998). She extends the division between 'fake' tense pronouns (pronouns without deictic meaning), and 'real' tenses (pronouns with deictic meaning) observed in sequences of tense to *would*-counterfactuals. Arregui proposes that the antecedent clause tense is fake tense. The tense morphology in the antecedent is just agreement with a 'real' past tense higher in the structure. Arregui proposes the structure in (92), in which a fake (empty) past tense (here represented by ϕ_j) shows up in the antecedent clause in the scope of a real (deictic) higher past tense.

(92)



(Arregui, 2009, ex. (2))

According to (92) tense in the antecedent is a fake tense. This means that tense morphology is bleached of its deictic meaning and is simply a copy of the morphology of the higher deictic past tense. A binder index *i* (à la Heim and Kratzer 1998) abstracts over the fake tense in the antecedent clause, and the modal *would* takes as its first argument a property of temporal entities.

Turning back to HPCs, I have argued that HPCs are conditionals. We will see in chpaters 4 and 5 that the modal in HPCs, which I have been calling Ψ, is actually a universal counterfactual modal. If that is the case, and Spanish behaves like English conditionals with respect to tense, then the tense pronoun in the antecedent is a fake pronoun and the morphology expressed in the antecedent of HPCs (or the lack of it) is the result of agreement. Let's see first that Spanish behaves like English.

(93) **Remote conditionals in Spanish**

a. Si (él) **estuviera / hubiera estado** aquí (ahora), estaría arriba

if he were/had been here now would be upstairs
'If he were/had been here now, he would be upstairs'

b. Si (tú) **fueras** mañana, verías a Ed.

if you went tomorrow would see to Ed
'If you went tomorrow, you would see Ed'

The verb form in the antecedent of the equivalent Spanish remote conditional is in subjunctive. However, the verb form in the antecedent in (93a) is not the present form of the subjunctive, *esté* (be.3.sg.Pres.Subj), but the past form, and yet the eventuality it presents can be placed in the present, past or future. The same can be observed in (94), which is parallel in all important respects to (91).

(94)

V-Past	present	Si Su Majestad estuviera aquí ahora, estaría asqueada 'If Her Majesty was here now, she would be revolted'
haber V-participle	future	Si la abuela hubiera perdido el último autobús el viernes (el próximo viernes), habría ido a casa andando (la abuela está muerta) 'If Grannie had missed the last bus on Friday (next Friday) she would have walked home (*she is actually dead*'
	present	Si Su majestad hubiera estado aquí ahora, habría estado asqueada 'If her Majesty had been here now, she would have been revolted'
	past	Si la abuela hubiera perdido el último autobús el viernes (el pasado viernes), habría ido a casa andando (afortunadamente no lo perdió) 'If Grannie had missed the last bus on Friday (last Friday), she would have walked home (*luckily, she caught it*)'

The facts presented in (91), from Dudman (1984), find their correlate in Spanish, (94). The antecedent refers to eventualities in the present, past or future, whereas the verb morphology stays the same. The stem in the verb morphology is the stem used for past tense forms, with the subjunctive form. These facts indicate that the morphology in the antecedent of conditionals in Spanish also lacks the expected semantic interpretation.

One could still wonder whether what is going on in Spanish is different from what we see in English. A possibility is that the verb morphology in the antecedent of conditionals in Spanish is nothing but mood morphology. Arregui (2004) already shows that appealing to mood is not enough to explain the data in conditionals. Let us look at (95).

(95) a. Dudo que esté acá

doubt-PresInd that be-PresSubj here
'I don't think that he/she/it is here'

b. Dudo que estuviera acá

doubt-PresInd that be-PastSubj here
'I don't think he/she/it was here'

(Arregui, 2004, ex. (4))

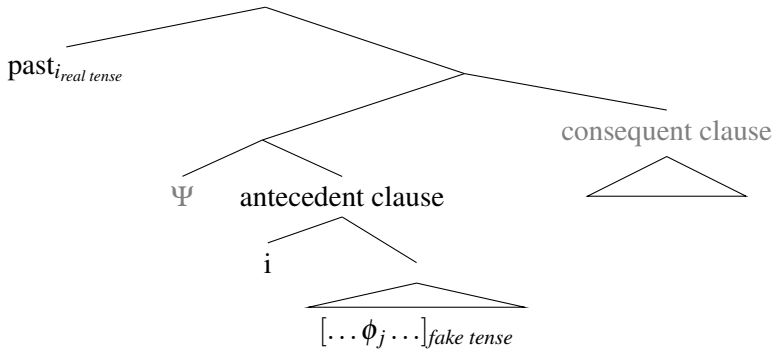
The doubt in (95a) is about something going on at the speech time, whereas in (95b), where the subjunctive is in past form, the doubt is about something going on in the past, i.e. before speech time. As Arregui concludes, "the past present distinction in the subjunctive mood has (or at least can have) the expected temporal consequences," and yet we fail to find it in the antecedents of conditionals.

The discussion above regarding the Spanish data suggests that, as in English, the tense morphology in the antecedent of *would*-conditionals corresponds to a 'fake' tense pronoun. We can follow Arregui (2004, 2007, 2009) in assuming that the morphology in the antecedent reflects agreement with a higher tense pronoun (a 'real' tense). Now we can apply these findings to HPCs.

HPCs do not have tense morphology. If the morphology in the antecedent clause is a reflex of agreement between a 'fake' tense pronoun and a 'real' tense pronoun, the fact that the morphology in the antecedent is just infinitival morphology reflects the absence of a real tense in the matrix clause. In what follows I argue that the lack of tense in this construction has as consequence the absence of the consequent.

Adopting Arregui's system (Arregui, 2004, 2007, 2009), the tense pronoun in the antecedent is a 'fake' pronoun. The morphology in the antecedent is the result of agreement with a real pronoun higher in the structure. In (96), I adopt Arregui's account (92) to HPCs.

(96) HPCs



In HPCs the morphology in the antecedent clause (the only verb morphology we see) is infinitival. This morphology is the result of agreement with the higher tense (the matrix clause tense) in the structure, the real tense.

I am going to set aside for now the question of what results in infinitival morphology in the antecedent. However, it is clear that if there is infinitival morphology in the antecedent, the matrix clause verb morphology should also be infinitival morphology. The matrix clause verb is the verb in the consequent clause. However, Spanish does not allow matrix clauses with infinitival morphology. In Spanish all the matrix clauses have to have

tense morphology. This is why the consequent in HPCs cannot be spelled out. We still have to explain why we can spell out the antecedent.

In Spanish, it is only possible to utter a tenseless clause in a context in which it can be understood as an embedded clause, (97).

(97) Sam: ¿Qué vas a hacer?
'What are you going to do?'
Tom: Ducharme y ver la tele
shower.Inf and watch.Inf the TV
'I am going to have a shower and watch TV'

The verb in Tom's response in (97) has an infinitival form. However, this is only acceptable if we can understand it as an embedded clause.

(98) Voy a ducharme y ver la tele
I am going to shower-me and watch the TV
'I am going to shower and watch TV'

Understanding the antecedent of a conditional as an embedded clause as in sequence of tense, we can understand why we can spell out the antecedent in HPCs even though it has only infinitival morphology. However, we cannot spell out the matrix clause (the consequent).[21]

---

[21]Notice that Spanish and English are different on this respect. Infinitival clauses do not need to be considered embedded, whereas in Spanish this is always the case. Let us consider (i). ?

(i) A: I am not feeling very well, I am very tired...
B: Why not to eat a pear?

Why-clauses in English do not need to be treated as embedded. However, in Spanish that is not possible.

(ii) A: No me siento muy bien, me encuentro muy cansado...
neg cl.2.sg.Acc feel very well cl.2.sg.Acc feel very tired
'I don't feel very well, I feel very tired'
B: *¿Por qué no comer una pera?

Unlike *why*-questions in English, *why*-questions in Spanish needs to be interpreted as embedded, as the ungrammaticality of (ii) and the grammaticality of (iii) shows.

(iii) A: ¿Qué podemos hacer hoy?
what can.1.pl do.Inf today
'What can we do today?'
B: ¿Por qué no ir a un bar?
why neg go.Inf to a bar
'Why not to go to a bar?'

The interpretation of (iii) is that of an embedded question, (iv).

(iv) ¿Por qué no ~~podemos~~ ir a un bar?
why neg can.1.pl go.Inf to a bar
'Why can't we go to a bar?'

To sum up, evidence for the lack of tense in HPCs is found in the lack of tense morphology in HPCs. Taking into account that tense morphology in the antecedent of counterfactuals reflects the tense in the matrix clause (Arregui, 2004, 2007, 2009), the lack of tense in the antecedent reflects the lack of tense in the entire conditional. This lack of tense in the conditional explains why the consequent of HPCs cannot be spelled out.

To sum up, in this section I have argued that HPCs are tenseless. This is reflected in the verb morphology in the antecedent, infinitival morphology. Following Arregui (2004, 2007, 2009) I have argued that the verb morphology in the antecedent of conditionals in Spanish is just agreement morphology with a higher tense. This explains why we cannot spell out the consequent in HPCs, since matrix clauses in Spanish require tense morphology.

3.5 Conclusion

In this chapter I have presented arguments in favor of an account in which HPCs are conditionals spelling out only the antecedent. I have also explained why in HPCs the consequent has to remain silent. In chapter 4 I address the question regarding what kind of modal is involved in HPCs and in chapter 5 I investigate the source of desirability in HPCs. In chapter 6 I turn to subject-auxililary inversion and argue that subject-auxiliary inversion signals that the proposition in the antecedent is GIVEN in Schwarzschild's (1999) terms.

Once we can understand the infinitival clause as an embedded clause, the utterance of the *why*-clause with an infinitival is good.

CHAPTER 4
MODALITY IN HPCS

This chapter is devoted to the modality involved in HPCs. I have argued in chapter 2 and in chapter 3 that HPCs are conditionals and that they are counterfactual, thus the default hypothesis is that the modal in HPCs (which I refer to as Ψ) is a universal counterfactual modal.[1] However, Bosque's (1980) proposal is based on the intuition that HPCs have a universal deontic interpretation, which supports the idea of there being a deontic modal instead of a plain counterfactual modal. In addition, we saw in chapter 2 that HPCs are tied to desires, and desirability is a modal flavor that could also be encoded in the modal of the HPCs.

In this chapter I am not going to be concerned with desirability in HPCs. I will return to this issue in chapter 5, where I will claim that desirability is not encoded in the modal. In this chapter I start by discussing the possibility that Ψ is a universal deontic modal, §4.1. I will argue that Ψ is not a deontic modal. In §4.2 I argue that Ψ is a universal counterfactual modal. In §4.3 I argue that the assumption that HPCs are conditionals with a counterfactual modal helps explain licensing phenomena related to informativity.

4.1 Is Ψ a universal deontic modal?

We are in the process of figuring out what kind of modality corresponds to Ψ. When uttering an HPC, one indicates that some possibilities are better than others. In this section I will investigate the hypothesis that Ψ is a deontic modal (similar to deontic *should* in English). Deontic modality naturally comes to mind because deontic modals are used to signal preferences amongst options.

In evaluating whether Ψ equals a universal deontic modal, we have to keep in mind that we are assuming that we will have an independent explanation for why HPCs encode desires. Desires also give us an evaluative measure (the things we desire are in some sense better, just because we desire them). In figuring out whether Ψ equals a universal

[1] I employ this terminology because I am interested in a proposal in which the semantics follows Lewis's (1973) proposal for counterfactual conditionals (i.e. Lewis' (1973) counterfactual connective). This is the kind of meaning that Lewis attributed to examples like *If kangaroos had no tails, they would toppled over*. The possibility of offering a unified analysis for the kind of conditionals that Lewis called "counterfactual" and the kind of conditionals that Lewis called "epistemic" has been explored in the literature, e.g. Arregui (2007). However, such discussion is beyond the scope of this dissertation.

deontic modal, we need to look for additional measures of comparison that do not depend on desires. Comparisons based only on desires do not really provide an argument for a universal deontic modal, we need to find something else.

This section will address the following questions: (i) can we detect an evaluative measure not tied to desires in HPCs?, and (ii) do we even get the truth conditions right with a universal deontic modal? As we will see (§4.1.1), the evaluative measure in HPCs is always tied to desires, and moreover (§4.1.2), we will see that when trying to fit a deontic modal into the conditional structure of HPCs we get the wrong truth conditions, thus arguing that there isn't a plaussible way to fit a deontic modal into the conditional structure of HPCs.

4.1.1 The interpretation

In the case of deontic modals, the 'best worlds'[2] are identified on the basis of a contextually determined 'measure of goodness' (what counts as better is determined by context). We know already that desires are one of the measures of goodness available in HPCs (HPCs are tied to desires), and sometimes it is difficult to determine whether desires alone are the only relevant evaluative criterion, (99).

(99) Steve: I thought that the best choice to avoid the explosion was to cut the red wire instead of the blue one..., but I was wrong..., many people died.

Jack: Sí..., el rojo hubiera sido también mi opción, pero..., haber cortado

yeah the red would have been also my option but have.Inf cut

el azul

the blue

'Yeah..., the red one would have also been my option, but..., had you cut the blue one, the bomb would have not exploded'

In (99), one could think that the relevant 'measure of goodness' prefers worlds in which the bomb does not explode and people's lives are saved. In this kind of scenario it is difficult to tell apart desires from an independent measure of goodness that values saving lives.

Let us see whether we can build scenarios in which we can solely determine whether desirability is the main measure of goodness in HPCs. Imagine a scenario in which the kid is a teenager characterized by his absolute lack of interest in anything, with a lot of time on his hands, who whines around the house all the time doing random things. Sometimes adults judge his actions as bad according to the standard concept of good and bad, and sometimes exceptionally great, as when he has cleaned up the garage without anyone telling him to do so. He just does what he pleases without much caring what he does. His only purpose is to

[2] I will speak informally about 'best worlds'.

fill up his time. It just so happens that he forgot to do the few chores he was supposed to do. His mom has grounded him and has told him to pile up the leaves in the backyard.

(100) Kid: If I were not doing this, I would probably be reading a comic-book. But this is as good...

Mother: # Haber hecho tus tareas.

have.Inf done your chores

In this scenario, in which the kid has no desires at all towards not being grounded, the mother's utterance of the HPC is bad regardless of the fact that the kid did not do his chores. This shows that when evaluating the HPC the contextually supplied measure of goodness does not refer to the established duties, which is contextually available, but to desires. Since the kid does not desire for things to be different than they are, the mother's utterance is infelicitous.

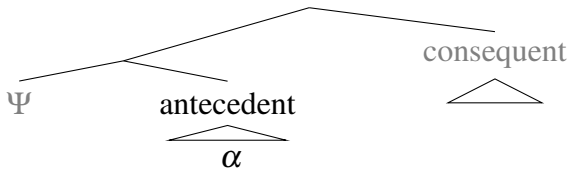
Notice that, in the scenario in (100), we cannot accomodate that the desires to be fulfilled are the mother's, which would result in accepting the utterance of the HPC as felicitous. This is because the relevant desire is that the kid not be grounded, and the mother does not have that desire (she does not care). However, in a situation in which the mother really desired not to ground the child, but has signed a motherhood contract that says that if the kid does not do his chores, she has to ground him, things would be different. In this situation, the mother could have uttered the HPC. Furthermore, this variant illustrates that HPCs can refer to the speaker's desires (in this case the mother's). We only have to change the context in a way that allows it.

To sum up, in this section I have argued that the only measure of goodness involved in HPCs is that involving desires. Assuming that desirability is derived from a source independent of the modal, we do not have any reason to encode deontic modality in Ψ.

4.1.2 The structure

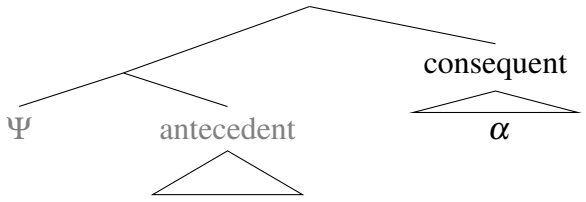
Another argument against considering that Ψ in (101) is a deontic modal is that the conditionals structure does not actually derive the right interpretation. We have seen arguments in favor of HPCs being conditionals spelling out only the antecedent, but if we assume this structure, the assumption that Ψ is a deontic modal does not allow us to derive the correct interpretation.

(101)



Considering (101), and spelling out Ψ as a deontic necessity modal, an HPC would be equivalent to *Had you done p, you should q*, where *q* is the consequent and *should* stands in for the universal deontic modal. However, if HPC(α) means that in all the best worlds α is true, α should be the consequent in (101), and the structure should actually look like (102).

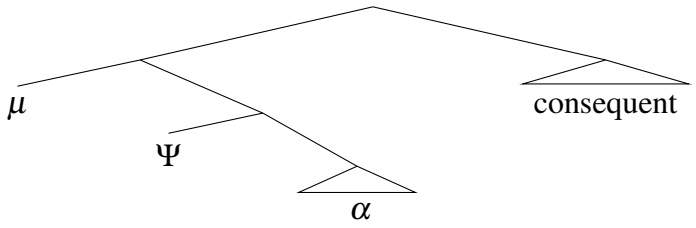
(102)



The problem with this proposal is that, as I have already argued in chapter 3, HPCs do not spell out consequents. The alternative spelled out in HPCs is the antecedent, the consequent cannot be spelled out.

Suppose we wanted to pursue the idea that in HPC(α), α is in the scope of a deontic modal. Given the interpretation, α must be the modal's nuclear scope. But α must also be an antecedent. One way to reconcile these requirements would be to suppose that a deontic statement is embedded as the antecedent of a silent conditional. The resulting structure would be as in (103), where Ψ is a deontic modal (taking α in its scope) and μ is a conditional operator taking the proposition uttered in the HPC as its antecedent.

(103)



Given the structure in (103), we could speculate that Ψ is deontic and μ is equivalent to *would*. If we were able to put together the interpretation of this strucure, we would obtain something like (104a) (where the antecedent is inverted):

(104) a. *Had you been deontically required to α, the consequent would be true (and thus X's*[3] *desires would be true).*

[3]Where X is either the speaker of the addressee.

b. Hubieras debido α, el consecuente sería verdad (y los deseos de X
had.2.sg must α the consequent would be true and the desires of X
serían verdad)
would be true

But the interpretation of (104a) is not the interpretation of HPCs. There are worlds in which HPCs are true, and yet (104a) is not true. Let's look at the contrast between Sam's utterance in (105).

(105) John: I am sorry I am late
Sam (a): Haber salido antes
have.Inf left earlier
Sam (b): Hubieras tenido que salir antes, habrías llegado a tiempo
had had to leave earlier would have arrive on time

The HPC *haber salido antes*, HPC(you leave earlier), is true if and only if the worlds in which John leaves earlier are worlds in which he arrives on time, fulfilling his desires. However, the conditional *hubieras tenido que salir antes, habrías llegado a tiempo* is true if and only if in the most similar worlds in which you have the obligation of leaving early, you arrived on time. This is clearly different from the HPC.

To sum up, HPCs are not counterfactual conditionals with deontic modality in the antecedent.

4.1.3 Conclusion

In this section I have presented evidence arguing that the modal in HPCs, Ψ, is not a deontic modal. In particular, it is not the case that an HPC(α) invokes a ranking of alternatives in which α is the best alternative for reasons other than desirability, which we will see in chapter 5 is derived from different sources. I have also shown that an attempt to argue that Ψ is a deontic modal would force us to assume embedded modality. The resulting semantics does not correspond with the interpretation of HPCs.

4.2 Is Ψ a universal counterfactual modal?

In this section I turn to examining the default hypothesis that Ψ is a counterfactual universal modal. I am assuming that desirability does not need to be encoded in the modal Ψ (I will argue for this in chapter 5). We have seen above that the only measure of goodness involved in HPCs is desirability, so we have no reason to think that there is a deontic modal in HPCs. Since HPCs are conditionals in which only the antecedent is spelled out, in

this section I pay attention to what happens when the consequent goes missing in regular Spanish counterfactual conditionals. We will see that when the consequent goes missing in regular counterfactual conditionals, the intuitions of desirability arise in this construction too. This lends support for a counterfactual analysis of Ψ.

HPCs and regular counterfactuals actually give rise to the same intuitions when the consequent is missing, (106).

(106) John has to choose between going to Moscow to see the Red Square, or to Egypt to see the Temple of Luxor. He decides to go to Moscow. He had a great time and would not change his choice for anything. However, he still thinks that it would have been fun to see the Temple of Luxor and he says so to Rick, who knows all this.

John: It is a pity I won't get to see the Temple of Luxor

Rick: ?# Haber ido a Egipto

have.Inf gone to Egypt

[HPC]

Rick: Si hubieras ido a Egipto, hubieras visto el templo de Luxor

if had gone to Egypt had seen the temple of Luxor

[Regular *if*-conditional]

Rick: Hubieras ido a Epipto, habrías visto Luxor

had gone to Egypt would have seen Luxor

[Inverted conditional]

Rick: ?# Hubieras ido a Egipto...

had gone to Egypt

[Inverted conditionals without consequent]

In regular *would*-conditionals with inverted antecedents, when the consequent is missing the intuitions regarding desirability are similar to the intuitions with HPCs. It is understood that going to Egypt was a salient option in the past (as is the case when the consequent is overt and the antecedent is inverted), but it is also understood that the addressee would

have desired to see the Temple of Luxor. The intuitions are similar to the intuitions arising from HPCs because the absence of the consequent gives rise to the interpretation that it is desired (like in optatives, explained in chapter 5). In the example, the idea that the consequent (seeing the temple of Luxor) is what is desired conflicts somehow with the contextual information in which what John really wanted was to go to Moscow.[4]

Given that desirability is tied to the absence of the consequent, it is feasible to maintain that Ψ is a universal counterfactual modal. HPC(α) states that α is an alternative to bring about X's desires. It is expected that in any given situation there be a variety of HPCs that are felicitous, and often there is more than one (unrelated) alternative that can bring about the desires. Such an example is in (107).

(107) Steve: I am sorry I am late
Maria (a): Haber tomado un taxi
have.Inf taken a cab
Maria (b): Haber salido antes
have.Inf left earlier

The alternatives in (107) are not ranked with respect to the other. *Leaving earlier* and *taking a cab* are both equally good alternatives, and uttering either HPC is felicitous in this context. Both alternatives result in the desired outcome: Steve does not arrive late. Since the alternatives are not related in any obvious way and both, potentially, deliver the desired worlds, HPCs spelling out either of them are felicitous.

A different situation is illustrated by the soufflé scenario, (108) repeated here.

(108) You are about to make your first soufflé and you would like John (soufflé expert) to help you, but you think he will be away until next Tuesday. You decide not to wait and the result is a fiasco. Sarah, who knows all that, enters into the kitchen and sees the obviously unsuccessful soufflé, and the next conversation takes place.
You: The soufflé was a disaster.
Sara: Haber hecho el souflé el martes que viene.
have.Aux.Inf made the soufflé the Tuesday that comes
'You should have made your soufflé next Tuesday'

Imagine that in the scenario in (108), in which Sara and you share the belief that John will be coming back to town on Tuesday, Sara utters (109) instead.

[4]It still remains to be explained what are the differences between inverted *would*-conditionals in Spanish without the consequent, and HPCs. We will get back to this later in chapter 6.

(109) Sara: Haber hecho el souflé el jueves que viene.

have.Aux.Inf made the soufflé the Thursday that comes

'You should have made your soufflé next Thursday'

The utterance of HPC(you make the soufflé next Thursday) in (109) is not a felicitous answer in the scenario in (108). In principle, if John is in town on Tuesday, he is in town on Thursday. However, we have claimed in (106) that HPC(α) presupposes that α is epistemically available to the addressee at the relevant time. Waiting till Thursday is not a salient alternative at the time Sarah made her soufflé. Her only salient alternatives at that point were *making the soufflé now* or *waiting until Tuesday*. Therefore, *haber hecho el soufflé el próximo jueves* ('Have done your soufflé next Thursday') is not available.

However, an analysis in which Ψ is a universal counterfactual modal also faces problems. Let us examine the contrast between HPCs and regular counterfactual conditionals (in which the consequent is spelled out), (110).

(110) a. Haber salido antes [HPC]

have.Inf left earlier

b. Hubieras salido antes, habrías llegado a tiempo

have.2.sg.Subj left earlier, would have.2.sg arrived on time

'Had you left earlier, you would have arrived on time'

(110a) and (110b) are not equivalent. (110b) appears to simply point out what would have happened if the addressee had left earlier considering a normal traffic flow and the time it takes to get from the origin to the final destination. However, HPCs seem to have a deontic flavor. In (110a), the speaker seems to convey that the situations in which the addressee had left earlier would have been better.

Let us be more precise regarding the intuitions concerning (110). If (110a) were just a (tenseless) counterfactual conditional in which the consequent is not spelled out, the claim would be that if the addressee had left earlier, he would have arrived on time. According to the standard similarity based account of *would*-conditionals, this could be paraphrased as claiming that the most similar worlds in which you leave earlier are worlds in which you arrive on time. But these are not really the intuitions associated with (110a). (110a) has an evaluative component. An informal paraphrase of the meaning of (110a), in parallel to the meaning of regular counterfactual conditionals, would be to say that the worlds in which you leave earlier are better than worlds in which you arrive on time. The evaluative component is not part of the standard semantics of a universal counterfactual modal, which leads us to think that (110a) is not a (standard) counterfactual conditional. Taking into account the evaluative component, HPCs appear closer to a deontic claim.

To sum up, when uttering HPC(α), the speaker seems to compare α with other possibilities (amongst which is what has actually happened), and claims that α is a better alternative given a contextually salient 'measure of goodness'. This is a property of deontic statements that regular counterfactual conditionals lack (i.e. what is considered to be "better" is determined in the context). We'll illustrate this with a contrast in English between a modal statement with a deontic universal modal, 'should', and a counterfactual conditional. Consider the contrast in (111).

(111) a. You should have gone to Egypt

b. If you had gone to Egypt, you would have seen Luxor

By asserting (111a), the speaker claims that the best possibility would have been for you to go to Egypt. One way to understand this is to say that worlds in which you go to Egypt are better than worlds in which you don't. However, (111b) does not involve any ranking of possibilities. It merely describes what the worlds in which you go to Egypt look like. HPCs in Spanish have a flavor closer to (111a) than to (111b).

In chapter 5 we will see further intuitions regarding the properties of the proposition spelled-out in HPCs. In this chapter I will explore the intuitions that can be explained by merely considering that HPCs are conditionals and thus involve a quantificational structure. In the next section I address what happens when different (epistemically available) alternatives are in a subset relation. I show how, in such cases, felicitous HPCs choose the weakest/less restrictive-alternative. The analysis of Ψ as a universal counterfactual modal will provide us with an explanation for this fact, which will constitute further support for an analysis of HPCs as counterfactual conditionals.

4.3 Informativity in HPCs: Falling for the weakest

In this section I explore the semantics of counterfactual conditionals, §4.3.1–§4.3.4, and argue that an analysis of HPCs as conditionals delivers the right felicity judgments when combined with natural Gricean assumptions about informativity, §4.3.5.

4.3.1 A strict semantics for counterfactuals

The first thing to notice is that the alternative expressed by HPCs is not just any alternative that makes the consequent true. One has the intuition that the alternative spelled out in HPCs is the *best* alternative (though, as we have seen, not all the alternatives are ranked).[5] However, there are reasons why the idea of a 'best alternative' may not work. Consider (112).

[5]We will get back to where the sense of "best alternative" comes from in HPCs.

(112) Sam: I was wearing only a t-shirt and I was very cold

John: Haberte puesto un abrigo

have.Inf worn a coat

John: # Haberte puesto un abrigo de pieles.

have.Inf worn a fur coat

The utterance in which John suggests a fur coat in (112) is not felicitous.[6] Imagine that Sam got pneumonia as result of wearing only a t-shirt. Wearing his fur coat would have resulted in the perfect comfort outside, but just a regular winter coat would have also resulted in him not having pneumonia now. In this scenario, HPC(you wear a fur coat) is infelicitous. The point is that both wearing a regular winter coat and wearing a fur coat are enough to avoid pneumonia, but a fur coat would be even better against the cold. In a sense, the 'best alternative' would be a fur coat. However, HPC(you wear a fur coat) is not felicitous. In uttering an HPC, we have to choose the weakest alternative that gets us to the desired goal (i.e. not having pneumonia), even if there are stronger alternatives which are better in some sense. The scenario in (113) also illustrates the need to settle for the weakest.

(113) There are many cab companies in the city, and they only differ in color (they all have the same speed/eficiency record). You did not take a cab, and you are late.

You: I am sorry I am late

John (a): Haber tomado un taxi

have.Inf taken a cab

John (b): # Haber tomado un taxi rojo

have.Inf taken a cab red

If taking any cab brings about the desired worlds, i.e. worlds in which you arrive on time, strengthening the embedded proposition by reducing the set of possible cabs is not felicitous. The data in (113) present further support for an account of HPCs as conditional (i.e. quantificational) structures.

The examples in (112) and (113) illustrate that we need to settle for the weakest alternative that delivers the desired worlds: the weakest alternative that results in Sam not getting pneumonia (i.e., wearing any coat in (112)), and the weakest alternative resulting in you

---

[6] It is also bad to utter (i) in (112).

(i) # Haber-te puesto el abrigo de pieles
have.Inf-cl.2.sg worn the coat of fur

Having an indefinite versus a definite article is not what is at issue in (112).

being on time in (113). The claim will be that settling for the weakest alternative results in the strongest statement (see the discussion in §4.3.2). We will show this by discussing the semantics of *would*-conditionals. Let us consider (114).

(114) a. Had you worn a coat, you would not have pneumonia
b. Had you worn a fur coat, you would not have pneumonia

A preliminary semantics for counterfactuals is given in (115).

(115) *Strict Semantics*[7]
$[\![\phi > \psi]\!]^f(w) = 1$ iff $\forall w' \in f(w) : [\![\phi]\!]^f(w') = 1 \rightarrow [\![\psi]\!]^f(w') = 1$
f: an accessibility function from worlds to sets of worlds

(Von Fintel, 2001b)

A strict semantics for conditionals, (115), would deliver the right predictions regarding strength. According to (115), a conditional *if* ϕ, ψ is true if all the worlds accessible from the actual world in which ϕ is true are worlds in which ψ is true. The worlds accessible from the evaluation world w in which the antecedent is true when uttering (114a) are a superset of the worlds accessible from the evaluation world w in which the antecedent is true when uttering (114b), provided the accessibility function f stays the same. This is because the antecedent in (114a) is weaker (imposes fewer restrictions) than the antecedent in (114b). All worlds in which one wears a fur coat are worlds in which one wears a coat. Let me flesh out this discussion with an example.

According to figure 4.1, the worlds accessible from the evaluation world w through the evaluation function f in (114b) are $\{w_5, w_6, w_8, w_{10}, w_{11}\}$, whereas the worlds accessible from the evaluation world w in (114a) are a superset of those worlds. The conditional semantics in (115) claims that the conditionals in (114) will be true iff all the worlds in figure 4.1 are worlds in which Sam does not have pneumonia.

In the next section we will investigate how the relative strenght of the antecedent affects the relative strength for the conditionals themselves. We will use this discussion to explain why, in HPC(α), we settle for the weakest alternative.

4.3.2 Strength in conditionals

Conditionals are quantificational structures. The modal quantifies over possible worlds rather than over entities. However, there are parallels between universally quantified structures like *every person is happy* and *would*-conditionals in terms of reasoning about relative strength. Let us start by exploring what happens with simpler cases of quantification over entities and then we will see how *would*-conditionals work.

---

[7] von Fintel (2001b) uses $\phi > \psi$ as an abbreviation for *if* ϕ, *would* ψ. I adopt this convention in the remaining of the chapter.

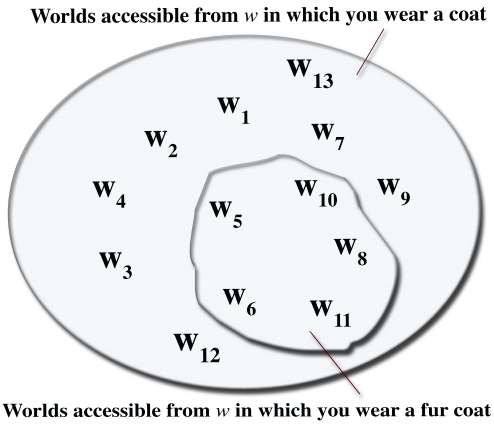


Figure 4.1. Accessible worlds

Let us consider the two examples in (116).

(116) a. Every person is happy

b. Every child is happy

It is true that if x is a child, x is a person, but not every person is a child. Thus the entities quantified over in (116b) are a subset of the entities quantified over in (116a). Let's consider the worlds w_1 and w_2 in figure 4.2.

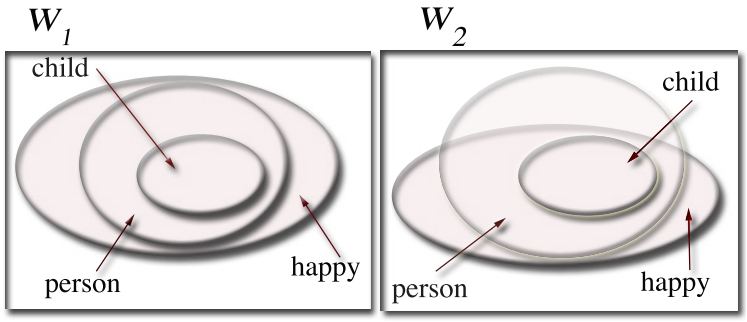


Figure 4.2. w_1 and w_2

Considering w_1 and w_2, the meanings of (116a) and (116b) are in (117).

(117) a. $[\![$ every person is happy $]\!] = \{w_1\}$

b. $[\![$ every child is happy $]\!] = \{w_1, w_2\}$

Let us consider an initial context $c = \{w_1,\ w_2,\ w_3,\ w_4,\ w_5,\ w_6\}$. In this situation, the utterance of (117b) and (117a) result in different updates, (118).

(118) a. $c + (117a) = \{w_1\}$

b. $c + (117b) = \{w_1, w_2\}$

Updating the context with (117a), which is a superset of (117b), is more informative than updating the context with (117b).

Given (115), the same reasoning carried through the case of quantifiers like *every* can be used with conditionals. Let's consider (119).

(119) a. If you had taken a cab, you would have arrived on time.

b. If you had taken a red cab, you would have arrived on time.

Taking into account a strict semantics for counterfactuals like (115), a conditional statement is true iff the worlds accessible from the evaluation world w in which ϕ is true are worlds in which ψ is true. With this semantics, when the antecedent of the conditional is stronger, (119b), the conditional claim is weaker, i.e. we get less information regarding what the actual world looks like. Let us see more precisely how this is so. Let us consider the worlds accessible from w_1 and w_2 through f illustrated in figure 4.3. The worlds accessible

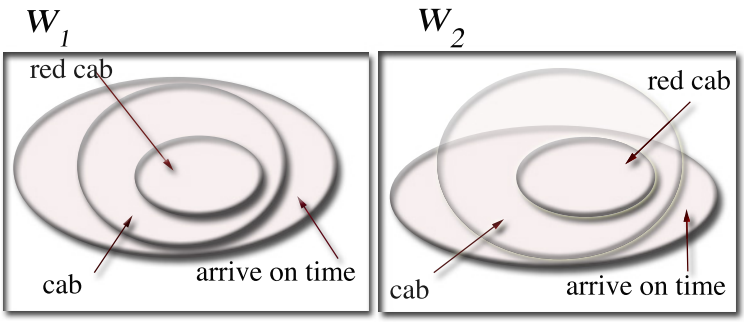


Figure 4.3. Accessibility from w_1 and w_2 through f

from w_1 in figure 4.3 are such that whenever you take a cab, you arrive on time. The worlds in which you take a red cab are a subset of the worlds in which you take any cab, and the worlds accessible from w_1 through f in which you take a red cab and arrive on time are a subset of the worlds in which you take any cab and arrive on time. However, the worlds accessible from w_2 through f are such that not all the worlds in which if you take any cab you arrive on time, but whenever you take a red cab you arrive on time. This situation is also illustrated in (120).

(120) a. $f(w_1) = \{w_3, w_4, w_5, w_6\}$

b. $f(w_2) = \{w_7, w_8, w_9, w_{10}\}$

c. $[\![\text{you take a red cab}]\!] = \{w_3, w_4, w_8\}$

d. $[\![\text{you take a cab}]\!] = \{w_3, w_4, w_5, w_7, w_8, w_9\}$

e. $[\![\text{you arrive on time}]\!] = \{w_3, w_4, w_5, w_6, w_8\}$

According to the semantics for counterfactuals in (115), the meaning of (119a) and (119b) evaluated with respect to $w1$ and $w2$, making using of f as illustrated in figure 4.3, is in (121).

(121) a. $[\![$If you had taken a cab, you would have arrived on time$]\!](w_1) = 1$
b. $[\![$If you had taken a cab, you would have arrived on time$]\!](w_2) = 0$
c. $[\![$If you had taken a red cab, you would have arrived on time$]\!](w_1) = 1$
d. $[\![$If you had taken a red cab, you would have arrived on time$]\!](w_2) = 1$

The set characterized by the counterfactual in (119a) is $\{w_1\}$, whereas the set characterized by the counterfactual in (119b) is $\{w_1, w_2\}$. Imagine that the conditional statements are not true in any other world, and let us consider an initial context $c = \{w_1, w_2, w_3, w_4, w_5, w_6, w_7, w_8\}$. If we update the context with the propositional content of (119a), the final context set is $c = \{w_1\}$, whereas if we update the context with the propositional content of (119b) the final context set is $c = \{w_1, w_2\}$. Therefore, the statement made by the utterance of (119a) is stronger and more informative than the claim made by the utterance of (119b).

All the reasoning in this section relies on the assumption that f, the accessibility function, stays the same when uttering (119a) and (119b) and that, when strengthening the antecedent, the worlds accessible from w are a subset of the worlds accessible from w in (119a). That is to say that *would*-counterfactuals are downward monotonic. The question is whether that assumption is right in *would*-conditionals. Are *would*-conditionals in general downward monotonic?

4.3.3 Where a strict semantics goes wrong

It is well known that *would*-conditionals are not downward monotonic. Lewis' examples in (122) illustrate the point.

(122) a. If kangaroos had no tails, they would topple over
b. If kangaroos had no tails but used crutches, they would topple over

Our intuitions about counterfactual claims tell us that even though (122a) is true, (122b) is not. This is important because the set of kangaroos with no tails who use crutches is a subset of the set of kangaroos with no tails. The (naive) strict semantics that we have been using for counterfactuals tells us that (122a) should imply (122b), but our intuitions indicate that this is not actually the case. Presumably, kangaroos using crutches would not topple over (or at least not necessarily) even though they do not have tails. A strict semantics for conditionals in which (122a) is true if in all worlds in which kangaroos have no tails and they topple over, would predict that kangaroos with no tails and using crutches would also topple over, since these are a subset of the former. Lewis' solution to this problem is to claim that the worlds quantified over in the two counterfactuals are different. This is what Lewis does when appealing to the notion of *similarity* between worlds. In (122a) we only

quantify over the most similar worlds in which kangaroos have no tails, whereas in (122b) we only quantify over the most similar worlds in which kangaroos have no tails and use crutches. When we evaluate (122a), we do not think about kangaroos that use crutches, we establish similarity by considering worlds like the actual world with the only difference that kangaroos do not have tails. We do not consider that in those worlds kangaroos use crutches. The antecedent restricting the domain of quantification determines different sets of worlds for the evaluation of the conditional. It seems that the worlds we quantify over when evaluating (122b) are not a subset of the worlds we quantify over when evaluating (122b). The picture in figure 4.4 illustrates this.

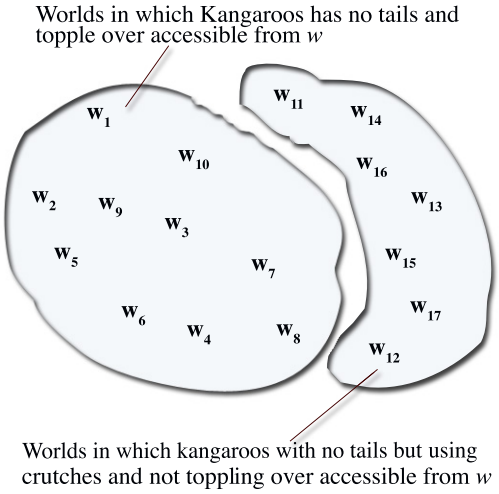


Figure 4.4. Not Downward monotonicity

This presents problems for the argumentation presented above to explain the intuitions regarding (119a) and (119b). Importantly, the same observations regarding monotonicity are observed in HPCs. The example in (123), involving HPCs is similar to Lewis' examples in (122).

(123) Sam: I got a ticket for parking in a tow-zone
John (a): Haber aparcado en otro sitio
have.Inf parked in other place
John (b): Haber aparcado en otro sitio y en zona prohibida
have.Inf parked in other place and in area forbidden

The proposition in the antecedent in John's (b) HPC is formed by two conjoined propositions. It is true that all the worlds in which Sam parks in a different street but in a tow zone are also worlds in which Sam parks in a different street. However, in this case, one would

not say that the alternative(s) conjoined in the HPC bring about the desired worlds, whereas the HPC in John's (a) utterance does. When evaluating the truth of the HPC in John's (a) utterance, we do not take into consideration worlds in which you park elsewhere and in a tow zone. When uttering John's (a), we do not seem to entertain that possibility. This fact rules out John's (b) utterance as a possible HPC, even though the proposition (in the antecedent, i.e. the proposition spelled in HPCs) is a subset of the proposition (in the antecedent) in John's (a) utterance. The situation in (123) is like the situation in (122): when evaluating the HPC, the accessibility function f gives access to sets of worlds that are not in subset relationship.

Both (123) and (122) illustrate that a strict semantics for conditionals does not suffice. With respect to HPCs, the consequence of the non-monotonicity of conditionals makes us wonder whether the reasoning above with respect to HPCs and the preference for weaker antecedents can be maintained. That is, the reasoning with respect to (114) holds if we can make sure that the worlds we quantify over in the case of Sam wearing a fur coat, (114b), are a subset of the worlds in which Sam wears any coat, (114a).

Lewis' solution to the problem of strengthening the antecedent is not of any help either. His solution appeals to the notion of similarity and does not give a strict semantics for conditionals (which would derive the desired results to maintain our theory regarding *weakness*). We need a semantics for counterfactuals that makes counterfactuals monotonic. von Fintel (2001b) provides us with such semantics.

4.3.4 A strict semantics for counterfactuals that allows monotonicity

Von Fintel (2001b) proposes a semantics for counterfactuals that allows a special kind of entailment relationship, which he calls *Strawson entailment*, that make counterfactuals monotonic. In what follows, I introduce his theory and illustrate how it will help us to maintain the view of HPCs by which we choose the HPC expressing the weakest antecedent in order to make the strongest (more informative) statement.

Von Fintel (2001b) proposes a dynamic account for counterfactuals in which a counterfactual statement $\phi > \psi$ is evaluated in a context that has been previously shifted to one, c', in which the accessibility function has been updated. This accessibility function now includes the closest worlds in which ϕ is true. The counterfactual is then true if all the ϕ worlds in the new context are ψ worlds. Von Fintel sketches the process in (124).

(124) $c|\alpha| = c'$
$[\![\alpha]\!]^{c'} = p$

(von Fintel, 2001b, ex. (2))

According to (124), the context is shifted by taking α into account, and the meaning of α is then evaluated with respect to the new context. Counterfactuals then change the context by

changing the accessibility relation, and use the new accessibility relation in their evaluation. This accessibility relation is a contextual parameter, and in this theory it evolves. This evolving accessibility relation is what von Fintel calls a *modal horizon*.

Von Fintel's (2001b) proposal for counterfactuals builds on Heim's account[8] for counterfactuals. Heim's account uses a strict semantics for the truth conditions, and posits a compatibility presupposition regarding the accessibility function, f, supplied by the context.

(125) Heim's semantics for counterfactuals
f is an accessibility function and $\leq$ a comparative similar order

a. *Compatibility presupposition*
$[\![\phi > \psi]\!]^{f,\leq}$ is defined at w only if $\exists w' \in f(w) : [\![\phi]\!]^{f,\leq}(w') = 1$

b. *Truth conditions*
$[\![\phi > \psi]\!]^{f,\leq}(w) = 1$ iff $\forall w' \in f(w) : [\![\phi]\!]^{f,\leq}(w') = 1 \rightarrow [\![\psi]\!]^{f,\leq}(w') = 1$

(von Fintel's 2001 rendition of Heim's proposal)

The compatibility presupposition requires that the accessibility funcion f include at least some worlds compatible with the antecedent, ϕ. However, as von Fintel points out, it is still necessary to explain how the accessibility function is first defined, and what happens when the initially identified function does not include worlds compatible with the antecedent for a counterfactual later on.

von Fintel (2001b) proposes to assume first a trivial accessibility function assigning to any evaluation world w the singleton set $\{w\}$. The compatibility presupposition will fail with counterfactuals, because the accessibility function will not include at first worlds in which ϕ is true. At that point, von Fintel's proposal is that the accessibility function expands enough to satisfy the presupposition. What the new accessibility function has to be is going to be given by the similarity measure.

(126) von Fintel's (2001b) dynamic semantics for counterfactuals

a. Auxiliary notion: update of f by a sentence ϕ
For any sentence ϕ, any accessibility function f, and similarity relation $\leq$
$f^{\phi,\leq} = \lambda w.f(w) \cup \{w' : \forall w'' \in [\![\phi]\!]^{f,\leq} : w' \leq_w w''\}$

b. Context change potential
$f|\phi > \psi|^{\leq} = f^{\phi,\leq}|\phi|^{\leq}|\psi|^{\leq}$

c. Truth conditions
$[\![\phi > \psi]\!]^{f,\leq}(w) = 1$ iff
$\forall w' \in f^{\phi,\leq}|\phi|^{\leq}(w) : [\![\phi]\!]^{f,\leq}(w') = 1 \rightarrow [\![\psi]\!]^{f^{\phi,\leq},|\phi|^{\leq},\leq}(w') = 1$

[8] Von Fintel considers the theory proposed by Heim in a seminar taught at MIT in 1994.

This semantics is not monotonic either. Imagine $\phi > \psi$ is true with respect to f. This does not mean that $\phi \& \chi > \psi$ is true. It may be undefined according to the f used to evaluate $\phi > \psi$. However, we can define a new notion of entailment, what von Fintel calls *Strawson entailment*, according to which counterfactuals are monotonic.

(127) *Strawson entailment*
$\phi_1, \cdots, \phi_n \models_{\text{Strawson}} \psi$ iff for all $f, \leq, w$ such that $[\![\phi_1]\!]^{f,\leq}, \cdots, [\![\phi_n]\!]^{f,\leq}$, and $[\![\psi]\!]^{f,\leq}$ are all defined at w if $[\![\phi_1]\!]^{f,\leq}(w) = 1, \cdots, [\![\phi_n]\!]^{f,\leq}(w) = 1$, then $[\![\psi]\!]^{f,\leq}(w) = 1$

(von Fintel, 2001b, ex. (23))

Or alternatively a version

(128) *Strawson entailment*
$\phi_1, \cdots, \phi_n \models_{\text{Strawson}} \psi$ iff for all c such that
$c = c|\phi_1| \ldots |\phi_n|\ |\psi|$,
it holds that
$[\![\phi]\!]^c \cap \ldots \cap [\![\phi_n]\!]^{c|\phi_1|\ldots|\phi_{n-1}|} \subseteq [\![\psi]\!]^{c|\phi_1|\ldots|\phi_n|}$

(von Fintel, 2001b, ex. (31))

Strawson entailment says that a sequence of propositions Strawson-entails a proposition ψ if the context used to evaluate ϕ_1 is already a context in which we can evaluate ϕ_n and ψ. von Fintel says

> "Consider as an example the validity of Strengthening the Antecedent. Under the *assumption* that a context is already such that if ϕ and if ϕ & χ will not further expand the accessibility function, the inference is fine: thus, it is Strawson-valid. It appears to me that speakers can reasonably offer arguments of the form of Strengthening the Antecedent. What should we say about such behavior? Do they commit a fallacy? More likely, what we want to say is that they must be making tacit additional assumptions that make their inference valid. According to my account, the additional assumption that they are making is that the accessibility function is such that it remains constant throughout the inference."
>
> (von Fintel, 2001b, pg. 144)

To explain the phenomena in HPCs we need to appeal to the intuition that the accessibility function when evaluating the alternatives *you take a cab* and *you take a red cab* stays the same. This way, we can explain why, when uttering an HPC, the speaker settles for the weakest alternative: it results in the strongest claim.

4.3.5 HPCs, strength and informativity

We have seen above that weaker antecedents end up in more informative conditionals. Assuming that HPCs are conditionals, this is also true for this construction. If the

antecedent is weaker, the statement made by the HPC is more informative.[9] However, for conditionals we aren't compelled to utter the one that says more about the actual world. Both conditionals in (129) can be uttered.

(129) a. Si hubieras tomado un taxi, habrías llegado a tiempo

if you had taken a cab you would have arrived on time
'If yo had taken a cab, you would have arrived on time'

b. Si hubieras tomado un taxi rojo, habrías llegado a tiempo

if you had taken a cab red you would have arrived on time
'If you had taken a red cab, you would have arrived on time'

The utterance of any of the conditionals in (129) is felicitous in different scenarios. If I want to make a fuss about how you could have arrived on time, I would utter (129a). I could also utter (129b), if, on top of telling you how you could have arrived on time, I want to make a point about my favorite cabs in the city, the red cabs. However, (129b) would still sound funny in that situation, as if I were trying to sneak in a note on my favorite cabs when possible. However, if someone asks me about red cabs and the chances of arriving on time for a meeting had I taken one of those, I could utter (129b), because the topic of the conversation is *red cabs* and we want to obtain information about them. In conditionals, we want to be able to give as much information as possible regarding what is true in the actual world related to the informative goal of the utterance.

Let us go back to HPCs by looking at (113) again.

(113) There are many cab companies in the city, and they only differ in color (they all have the same speed/eficiency record). You did not take a cab, and you are late.

You: I am sorry I am late

John (a): Haber tomado un taxi

have.Inf taken a cab

John (b): # Haber tomado un taxi rojo

have.Inf taken a cab red

Strengthening the proposition in the HPC results in infelicitous utterances. The question is why this is the case. In answering this question, it is again going to be relevant that the consequent of HPCs is desired. Intuitively, when uttering an HPC we want to leave open the most options to bring about X's desires, and we need the stronger statement regarding how

[9]Intuitively, it is more informative (we learn more about how the world works) to make a statement of what happens in a more general situation (we learn more about the world) than to claim something about a more restricted (minimal) situation.

to bring about X's desires (a weaker antecedent leaves as more options to bring about X's desires and is stronger.

Let's look at this explanation in more detail. HPCs are conditionals in which we only spell out the antecedent. In uttering HPC(α), the speaker conveys that α would have led to the desired worlds. Assuming a cooperative participant, the utterance of HPC(you take a red cab) is not felicitous if the utterance of HPC(you take any cab) is true in the world of evaluation. A cooperative participant wants to be as informative as possible. Therefore, if possible, he will use John (a)'s utterance. If, in that situation, John utters (b), it would imply that taking any cab is not enough to bring about the desires (maxim of quantity). The utterance of (b), when taking any cab would have resulted in bringing about the desires, i.e. arriving on time, results on the violation of the conversation maxims, in particular, quantity.

4.3.6 Summary

In this section I have argued that the only measure of goodness relevant for licensing HPCs involves desires. Assuming that desirability does not need to be encoded in the modal, there is no impediment to claiming that Ψ is a universal counterfactual modal.

Assuming that Ψ is a universal counterfactual modal, HPCs end up being like plain *would*-counterfactuals with the additional characteristics that they are tenseless and the consequent cannot be spelled out. With this characterization we can derive many properties of HPCs. We can also explain why the alternative spelled out in HPC(α), α, has to be the weakest proposition that brings about the desires.

4.4 Conclusion

In this chapter I have argued that the modal involved in HPCs is a universal counterfactual modal. In addition, I have argued when a speaker utters HPC(α), the speaker is stating that worlds in which α is true are better worlds than those in which α is not true (α brings about X's desires (the consequent)). However, the measure of goodness ranking the different alternatives is not other than X's desires. Assuming that desirability is not encoded in the modal, but rather it arises from other sources (see chapter 5), there is no problem in claiming that Ψ is a universal counterfactual modal.

Depending on the context, sometimes it may appear that HPCs involve something other than desires. We may be tempted to think that duties are at stake in scenarios similar to (100), if a kid complains about being grounded for not doing his chores. However, we have seen how this is just an illusion arising from the overall context: there are duties involved, but what licenses the utterance of the HPC is desirability.

The impression that duty might be involved in evaluating HPCs is also related to the situations in which HPCs can be uttered. We will see in chapter 6 that the characteristics of HPCs allow them to be stereotypically used as reproaches. And even when they are

not reproaches, they are still inappropriate unless there is an asymmetric power relation between the participants in the conversation. This asymmetric relation is also observed when orders are given, and in the same way as one would not give orders to his boss, or a kid is not supposed to give orders to his mom, it is odd to utter an HPC when the addressee is ranked higher than the speaker. I will explore these particular characteristics of HPCs in the chapter 6.

CHAPTER 5
OPTATIVES

In this chapter I will discuss the relation between HPCs and 'optatives'. The term optative is related to 'optative mood', a 'verbal mood that is expressive of wishes or desires' (M.W. Dictionary). In the literature, however, the term 'optative' is used for sentences consisting only of an *if*-clause or an *if*-clause and a consequent clause in which a desire is conveyed, such as (130), and this is how I will use it from now on.

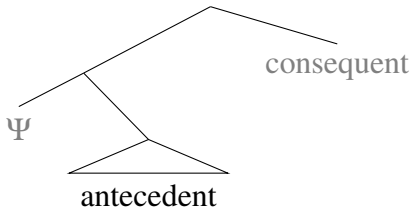
(130) If only I had left earlier, I would have arrived here on time

There are similarities between optatives and HPCs that make it interesting to discuss optatives together with HPCs. Given the proposal made in this thesis, HPCs are conditionals with silent (implicit) consequents, (131).

(131) a. Haber salido antes [HPC]

have.Inf left earlier

b.



Moreover, the consequent that is implicit in HPCs is desired. These two features, a silent consequent and a desired consequent, are also present in optatives:

(132) A: If only I were rich, I would get a Ferrari 3000

B: Wait, they are not actually sold, they are given as presents to the factory president's friends

A: Oh! If only I were friends with the president (I would get a Ferrari 3000)

The dialogue in (132) illustrates that when uttering an optative, what is actually desired is encoded in the consequent. The proposition in the antecedent is not desired *per se*, but only as a way to bring about the consequent: A's desire in (132) is to get a Ferrari 3000 by whatever means.

The big challenge faced by an analysis of optatives is how to derive the meaning of these constructions compositionally. As in the case of HPCs, it is difficult to see how to derive desirability when no lexical item in the construction itself encodes this meaning. In the case of HPCs, one may be tempted to encode desirability in the modal Ψ, but this seems not to be an option in optatives unless we assume that there are two different *would*s, i.e. one encoding desirability (the one in *optatives*) and the other not encoding desirability (the one in regular conditionals). However, this solution is not desirable. Another possibility would involve stipulating the presence of a modal operator at LF responsible for desirability. I will not argue against this option directly, but will instead develop an account that does not need an extra silent modal.

One fairly intuitive solution would be to consider that optativity is the result of an idiomatic meaning. The claim would be that *if only* is an idiomatic expression encoding desirability. However, this seems not to be on the right track either, since this construction, the same combination of the equivalent *if* and *only*, exists in other languages (see (137) below). The fact that we also find the inverted version of optatives, (133), also points to a compositional analysis.

(133) Had I only left earlier, I would have arrived on time

An account of optatives arguing that optativity is an idiomatic meaning derived from the combination of *if* and *only* would not explain why we still have optativity when there is inversion in the antecedent and no *if* (see §5.1.1 for further arguments in favor of a compositional analysis, and against an idiomatic one).

The difference between regular conditionals and optatives depends clearly on the presence of *only*: without *only*, (130) and (133) are just regular conditionals in which the consequent needs to be spelled out and desirability is not an issue. This means that the explanation needs to be stated in relation to *only*. However, optativity cannot be derived from the semantics of the focus adverb itself, since *only* does not bring about optativity in general. Furthermore, *only* is not the only focus adverb found in optatives; *at least* does the same in English, (134).[1]

(134) If at least I had arrived earlier I would have been able to help

In (134) the consequent, uttered or silent, is inferred to be desired. There are differences between (134) and the equivalent with *only* that depend on the particular meaning of the focus adverb, but both sentences have in common the distribution of the particle with respect to the proposition in the antecedent and their focal properties. In what follows I am going to propose that optativity can be derived by taking into account what is common to

[1] In §5.2, we will also see that in German, for example, there is a large range of focus particles whose presence in the antecedent of conditionals brings about optativity.

only and *at least*, their focal properties, and the semantics of conditionals. This claim finds further support from German data.

In the first part of this chapter I propose a compositional analysis of *optatives* in which desirability can be derived compositionally without hidden or alternative modal operators encoding desirability. With a compositional analysis for optatives in hand, we can then turn back to the case of HPCs. I argue that the same analysis of desirability can be applied to HPCs. This means that desirability does not need to be encoded in the semantics of Ψ.

5.1 Focus adverbs and their scope and association in optatives

In this section I provide a compositional account of optatives. I first argue in favor of a syntactic structure in which, crucially, the focus adverb (stereotypically *only*) takes propositional scope, §5.1.2. It has been argued in the literature (Rifkin, 2000) that optatives without consequents are not conditionals. In §5.1.3 I will revisit the arguments and show that optatives without consequents are conditionals. Furthermore, I argue that counterfactuality is not essential for optatives, §5.1.3.7. Rather, what is essential is the speaker's ignorance regarding the truth of the proposition in the *if*-clause: for an optative to be felicitous the speaker must not know that the proposition in the antecedent is true. In §5.2 I offer an account of desirability in optatives. I argue that comes about pragmatically. I also offer an explanation for the fact that in optative conditionals the consequent can remain silent,§5.2.1.

5.1.1 Data

The following characterization of English *optative* sentences follows Rifkin (2000). There the term *optative* refers to conditional constructions that convey desirability and that are characterized by a focus adverb in the antecedent, (135).

(135) If only I had played Kasparov to a draw, I would have won $5000

(Rifkin, 2000, pg. 370, ex. (3a))

Rifkin points out that sentences like (135) need to be optative, unlike regular *if*-clauses. Compare (136a) with (136b).

(136) a. If our city were to be destroyed by the hurricane, we would get federal assistance

b. # If only our city were to be destroyed by the hurricane, we would get federal assistance

(Rifkin, 2000, pg. 370, ex (2))

Whereas (136a) expresses only a fact, namely, what would happen if a hurricane destroyed the city, (136b) does not sound quite right, since it implies the speaker's "unexpected" or

unusual desire that the city be destroyed in order to get federal assistance. The main puzzle in optative sentences is how to explain the obligatory desirability brought about by their utterance: there is no lexical item in optative constructions whose meaning encodes desire and yet we still understand that the person uttering an optative desires the consequent.

Optative sentences are not only found in English. Rifkin lists the phenomenon in other languages such as German, Italian, Russian, Hebrew, Finnish and Korean, (137).[2]

(137) a. German

i. Wen Hans (doch) nur reich wäre

if Hans (Emphatic) only rich be.Subjunctive

b. Italian

i. Se solo/soltanto Gianni fosse ricco

if only John be.Subjunctive rich

c. Russian

i. jesli by ja tol'ko byl bogatym

if I only be.Past rich.Instrumental

d. Hebrew

i. ilu/lu rak hayti ashir

if only be.Past.1st.sg rich

e. Finnish

i. Jos vain olisin rikas

if only be/Cond/1st rich

f. Korean

i. John-i puca -i -ki -man ha -ess -te -ramyun

Joh-Nom rich person -be -Nominalizer -only do -Past -Past -if

(Rifkin, 2000, ex. (5-10))

The data above illustrate the same phenomenon found in English and described above. Conditional constructions with *if-only* are optatives. The similarities found in such diverse languages argues in favor of a compositional analysis of the construction and against an idiomatic account, i.e. an account that explains the English phenomenon claiming that

[2]The list of languages below is not exhaustive. Spanish is not included in the list, but we will see that there are also optatives in Spanish.

if-only has been lexicalized to encode the desirability of the argument.[3] One could claim that the languages listed in (137) are in contact and thus we could just be observing a phenomenon due to language contact. However, it strikes me as unlikely that the presence of the same facts in Korean is due to language contact with the other listed languages. The goal then is to find a compositional analysis of optatives: the optative meaning needs to be derived from the combination of conditional clauses and *only*, since regular conditionals do not encode desirability nor, in general, do clauses with *only*. Let us start by looking at the distribution of *only* in optatives.

Rifkin (2000) points out that not any distribution of *only* derives the optative meaning. He offers the data in (138) and (139).

(138) a. Optatives

c. # If only a hurricane had razed the city…
d. # If a hurricane only had razed the city… } we would have received aid
e. # If a hurricane had only razed the city…

"#" indicates the anomaly of the wish reading, and thus its availability.

b. Not Optatives

b. Only if a hurricane had razed the city…
f. If a hurricane had razed only the city… } we would have received aid
g. If a hurricane had razed the city only…

(Data from Rifkin 2000, ex. (12a-f))

According to Rifkin (2000), the examples in (138a) are supposed revise an optative reading, and thus are infelicitous, whereas the examples in (138b) lack such reading. Using data from the distribution of adverbs and negation with respect of *only*, we can refine the data.

(139) a. √ If only he didn't have a gun (we might be able to escape)
b. √ If he only didn't have a gun

[3] A further argument against an idiomatic account and in favor of a compositional analysis comes from Spanish and the difference between *si sólo* ('if only')/ *si siquiera* ('if at least') and *si tan sólo* ('if intensifier-only')/ *si tan siquiera* ('if intensifier-at least'). In these cases the intensifier adds some meaning to the optative targeting the focus particle, arguing that optativity is not the result of an idiomatic expression. See data in §5.2.

c. * If he did only not have a gun

d. $\surd$ If he had only not had a gun

e. If he didn't only have a gun, Rambo might stand a chance against the battalion

f. If he hadn't only had a gun, Rambo might have stood a chance...

(Rifkin, 2000, ex. (13))

Also, the data in (140) shows the distribution of *only* with respect to adverbs.

(140) a. If he had only always acted honorably

b. If he had always only acted honorably [NOT OPTATIVE]

The data in (139e) and (139f) do not have an optative reading. Those two sentences have a contrastive reading. The data in (139) illustrate that *only* needs to be above negation in order to obtain an optative reading. The data in (140) indicate that *only* needs to be above adverbs. A summary of the data is presented in (141-142).

The data in (141) and (142) reproduce Rifkin's data adding adverbs and negation and data regarding progressive aspect. Again, the difference between (141) and (142) is in the distribution of *only*.

(141) Optatives

a. If only I had left earlier

b. If only he didn't have a gun

c. If I had only left earlier

d. If he had only always acted honorably

e. If he only didn't have a gun

f. If a hurricane only had raced the city

g. If he had only not had a gun

h. Had I only read a letter

i. If only John had been working hard

j. If John had only been working hard[4]

(142) Not Optatives (ungrammatical or not optative meaning)

a. If he had always only acted honorably

b. *If he did only not have a gun

c. If he didn't only have a gun

[4]Some speakers find this example ambiguous between an optative and a non-optative reading.

d. If he hadn't only had a gun

e. *Had only I read a letter

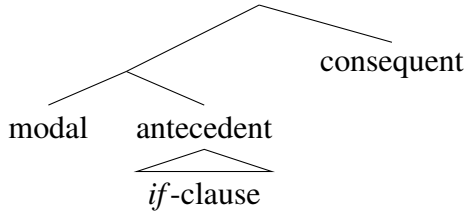
f. If John had been only working hard

In what follows I sketch the syntax of optative sentences taking into account the data introduced above. For simplicity in the presentation, I assume from the beginning that optative constructions are conditionals regardless of whether the consequent is spelled out or not. However, arguments in favor of this position have to be provided. This argument will be better understood once other properties of optatives are explained and thus I will present them later in §5.1.3.

5.1.2 The scope and association of *only*

As in chapter 5, I assume that *if*-clauses are restrictors of the modal domain of quantification (Lewis, 1973; Kratzer, 1977; Heim, 1982, a.o.). The simplest syntactic implementation of this idea characterizes conditionals as in (143).

(143)

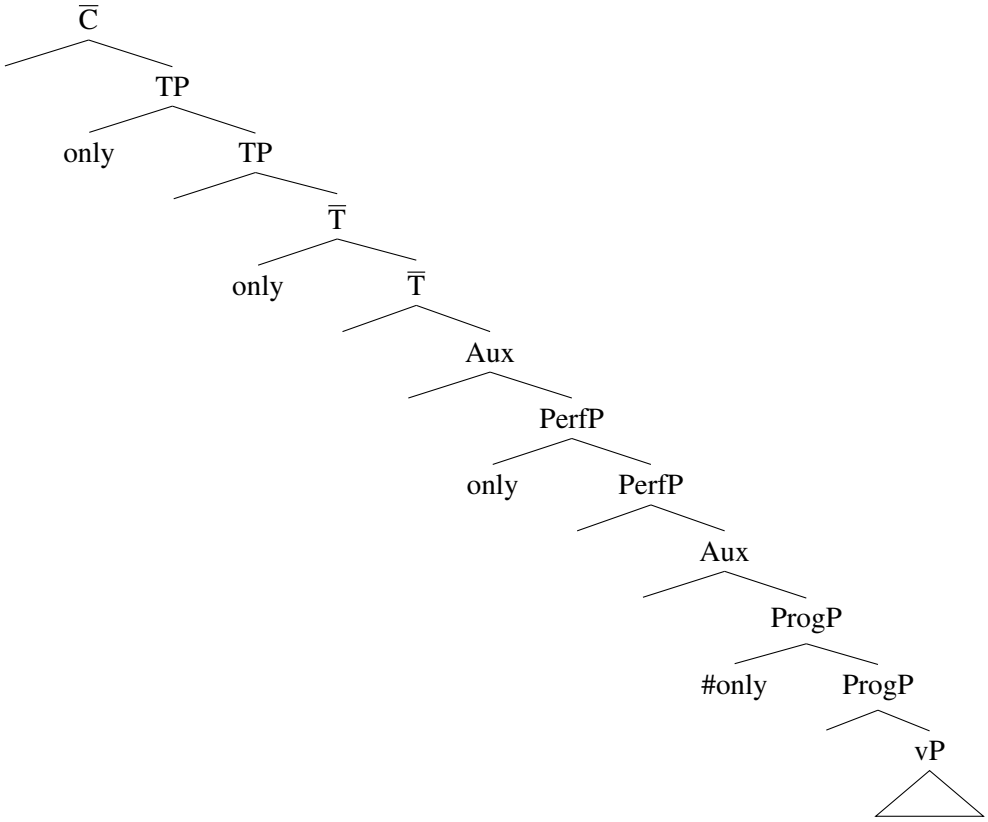


In (143) the modal takes two arguments, the first argument is the antecedent, and the second argument is the consequent. I used this simplified analysis in chapter 5 when arguing that HPCs are conditionals. There are more sophisticated syntactic analyses in the literature (von Fintel, 1994; Bhatt and Pancheva, 2006; Rawlins, 2008), but what I have to say here with respect to optatives does not discriminate between different proposals either and thus I adopt the simple representation in (143) for convenience. In what follows I focus on what happens within the *if*–clause, the antecedent.

5.1.2.1 The scope of the focus adverb

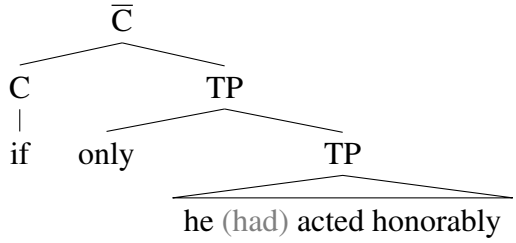
Only is an adverb and can attach at any level in the structure that is semantically permitted. Looking at the contrast between (141) and (142), the generalization seems to be that *only* in optatives has to attach somewhere in the T/Asp domain. However, by looking at the data with progressive aspect, (141i), (141j) and (142f), we can arrive at a more fine grained generalization. The data regarding progressive aspect indicates that when *only* is attached at the Progressive level, and there is perfect aspect, (142f), there is no optative reading. Thus the picture we can draw of the position of *only* is as in (144).

(144)

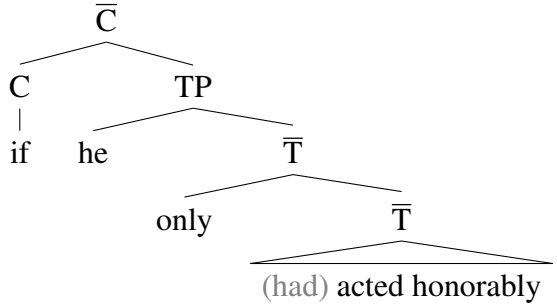


I illustrate the syntax corresponding to optatives in (141), with respect to the distribution of *only* described in (144).

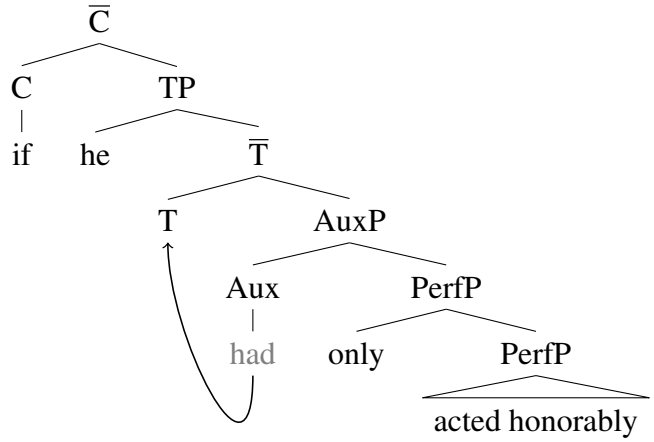
(145) a. If only he (had) acted honorably



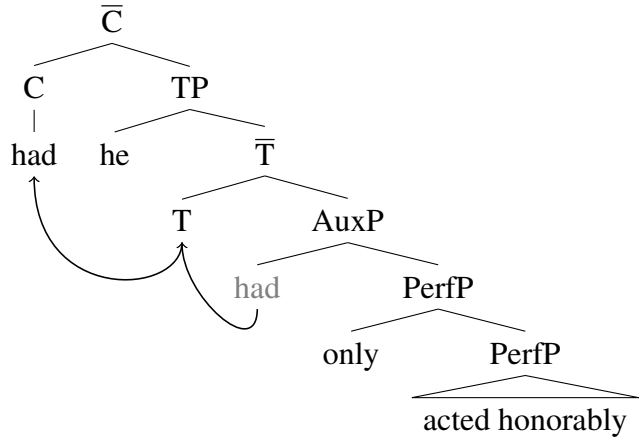
b. If he only (had) acted honorably



c. If he had only acted honorably



d. Had he only acted honorably



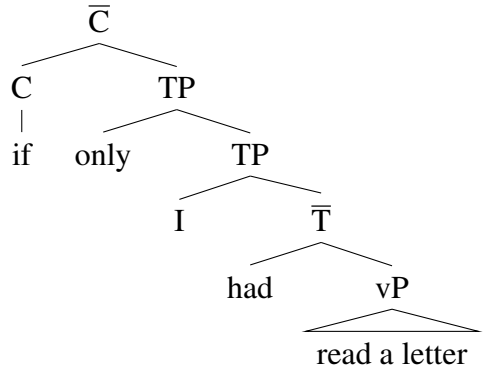
The syntactic structures above standardly assume movement of the auxiliary to T, as well as movement from the specifier of *v*P to the specifier of TP. The case of (141h), whose syntactic structure is in (145d) (an optative with inverted antecedent) assumes auxiliary movement from T to C (Iatridou and Embick, 1994). The contrast between (141a) and (142e), repeated in (146) for convenience, illustrates the fact that *only* blocks head movement.

(146) a. If only I had read a letter

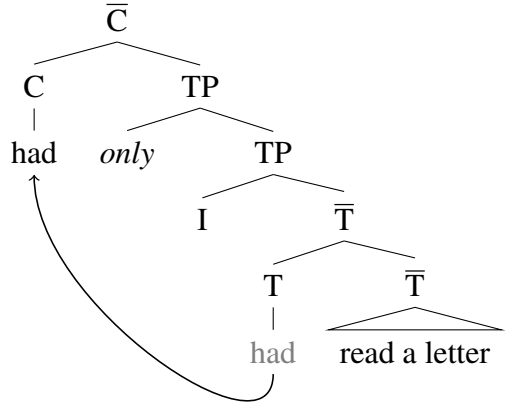
b. *Had only I read a letter

The corresponding syntactic structures are in (147).

(147) a. If only I had read a letter



b. *Had only I read a letter



The ungrammaticality of (147b) is explained because *only* blocks movement. Given that *only* is a focus adverb, it is not surprising that *only* does this.

The conclusion from the syntax of optatives discussed above is that for conditionals to be optatives it is necessary that the focus adverb scope over a TP or a *v*P. We obtain optativity only when the adverb scopes over a clause denoting a proposition. In fact, the picture that finally arises is one in which the highest operator at the TP level needs to be *only*. This is confirmed by data concerning perfect and progressive aspect. Let us consider (148).

(148) a. If only only had been working hard

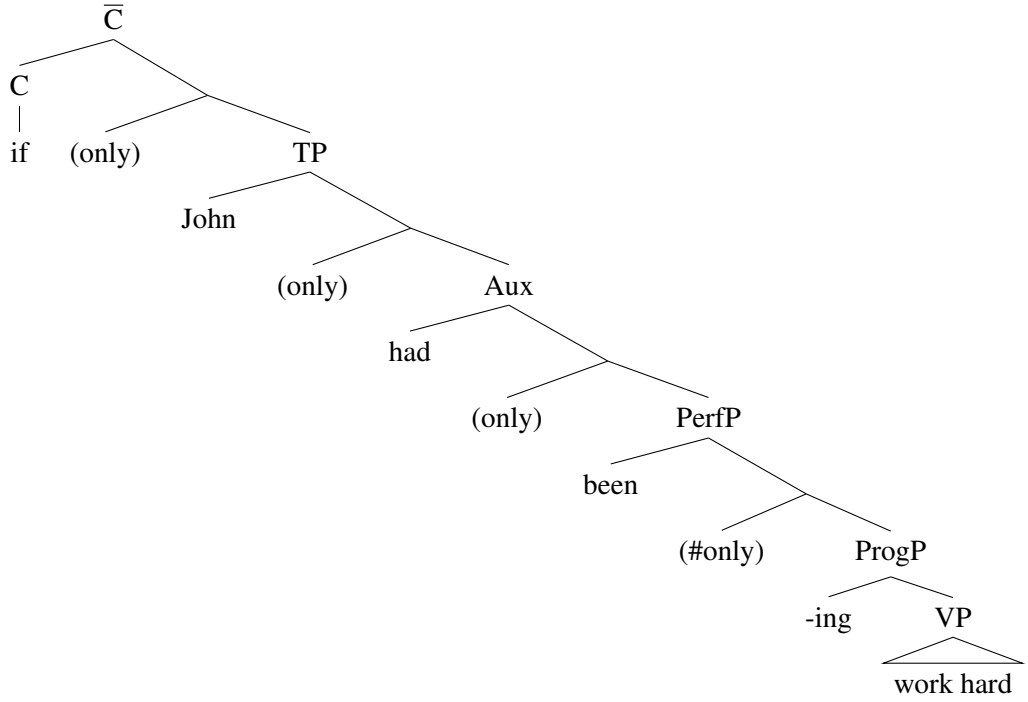
b. If John only had been working hard

c. If John had only been working hard

d. # If John had been only working hard [NOT OPTATIVE]

According to the data in (148), *only* can only be placed above the aspect phrases.

(149)



When *only* is placed below perfect aspect, (148d), and above progressive aspect, there is no optative reading. The same is observed when looking at the progressive aspect alone, (150).

(150) a. If only the cake was being eaten when Mom walked in, her feelings wouldn't been hurt

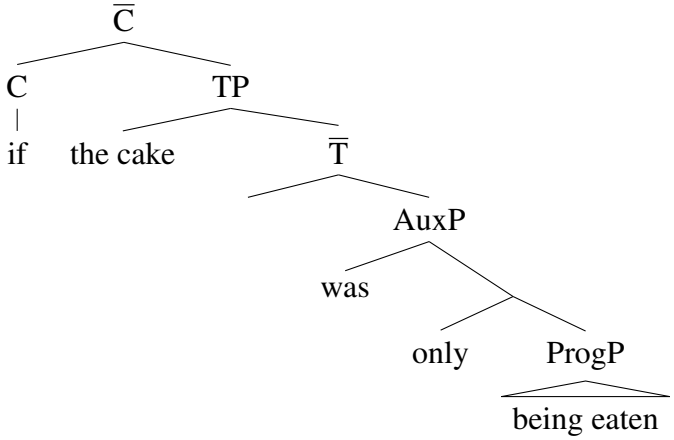
b. If the cake only was being eaten when Mom walked in, her feelings wouldn't been hurt

c. If the cake was only being eaten when Mom walked in, her feelings wouldn't been hurt

d. # If the cake was being only eaten when Mom walked in, her feelings wouldn't been hurt

The cases of (150a) and (150b) as expected after the discussion of similar cases above in which only is right below *if* and right below SpecTP. The case of (150c) shows that optativity is possible when *only* is below the auxiliary but above the aspect head, which carries the semantics of aspect, (151).

(151)



However, when *only* is below the head of progressive aspect, optativity is not found. This is similar to what we find with only perfect aspect, (152).

(152) a. If only the cake had been eaten
b. If the cake only had been eaten
c. If the cake had only been eaten
d. # If the cake had been only eaten [NOT OPTATIVE]

As illustrated in (152d), when *only* is below perfect aspect (*-en*), there is no optativity.

To summarize, in all the optative cases above, *only* is the highest operator at the TP level, and when aspect or negation is higher than *only* the optative reading disappears.[5] The case of inverted optatives, (145d), is consistent with a view according to which the semantics of aspect is carried by the morphology of the lexical verb (*-en* remains below *only*), not by the auxiliary (Iatridou et al., 2001). In §5.1.2.2 I further argue that in order to obtain optativity, the focus adverb needs to associate with the propositional meaning.

5.1.2.2 The association of the focus adverb in optatives

In this section I argue that the *optative* meaning comes about only when the focus adverb associates with the entire proposition in the antecedent.

If *only* does not associate with the proposition we do not obtain optativity. This is illustrated by the case of (153b).

(153) a. If only mom invited grandpa, grandpa wouldn't come
b. If only $[_F$ MOM] invited grandpa, grandpa wouldn't come

The sentence in (153a) has an optative meaning, i.e. it is inferred that the speaker wants grandpa not to come. However, when special emphasis is placed on *mom* (indicated by

[5]This view assumes that tense is not an operator in the relevant sense.

small caps), *only* associates with this single item and there is no optative meaning, (153b). Let us examine these facts in greater detail. The contrast in (154) supports the claim that (153a) has an optative meaning.

(154) a. I wish so much to see grandpa, # If only mom invited grandpa, grandpa wouldn't come

b. I do not want to see grandpa this weekend, $\surd$ If only mom invited grandpa, grandpa wouldn't come

I assume that the intonation in (153a) is just neutral intonation. With neutral intonation there is optative meaning. However, (153b) is not an optative, i.e. it is not understood that the speaker does not want grandpa to come, even though there is a focus adverb in the antecedent. In (153b) the small caps on *mom* indicate emphatic intonation. In this case, *only* associates with *mom*, not with the entire proposition, and thus the optative meaning disappears.

(155) A: Grandpa is getting old. He only travels when the whole family tries to convince him to get together.

B: Well... There is a possibility that mom ask him to visit us next week.

A: Don't be stupid! If only $[_{F}$ MOM$]$ invited grandpa, grandpa wouldn't come

In (155) the conditional does not carry an optative meaning even though there is a focus adverb in the antecedent. The meaning of A's utterance is that *were mom to be the only person trying to convince grandpa, grandpa would not visit at all*. Further evidence comes from the behavior of implicit antecedents. We know that optatives allow the consequent to remain silent. However, when the focus adverb does not associate with the antecedent proposition, the absence of the consequent results in ungrammaticality, (156).

(156) a. If only mom invited grandpa.

b. *If only MOM invited grandpa.

If we use the strategy of placing emphatic intonation on *mom* to force the association with *only*, *only* does not associate with a proposition and the result is a regular conditional, (156b). In this case the consequent needs to be spelled out. If there is no special intonation, (156a), and *only* can associate with the entire proposition, it is understood as an optative and the consequent can remain silent.

To summarize, optatives are not simply conditionals in which there is a focus particle in the antecedent clause. In optatives, the focus adverb has to associate with the antecedent proposition, otherwise the optative meaning is not displayed.

5.1.3 Optatives without consequents are conditionals

In the sections above I have taken for granted that both optatives in (157) are conditionals.

(157) a. If only I were rich, I would travel around the world

b. If only I were rich

I have assumed above that (157b) is a conditional in which the consequent is not spelled out. However, Rifkin (2000) argues that whereas (157a) is a conditional, when the consequent is not present, (157b), the result is not a conditional. Rifkin annotates optatives without consequents as *if only!*, and I adopt this convention in the remaining of the chapter. In what follows I present Rifkin's arguments against the view that *if only!* constructions are conditionals. I claim that all the facts presented in Rifkin (2000) can be explained while maintaining that *if only!* optatives are conditionals. The key to understanding Rifkin's data is to note that optatives without spelled-out consequents, while having the same conditional logical form, differ from optatives with spelled out consequents in terms of their semantic type. When the consequent is not spelled out, there is abstraction over the consequent proposition. I will show that the difference in semantic type explains Rifkin's observations while the conditional structure accounts for data that is problematic under Rifkin's non-conditional analysis. In order to support my claim I discuss Rifkin's arguments and explain the apparent differences between *if*-clauses and optatives discussed by Rifkin.

In this section I address the differences between *optatives* in general (with consequents spelled out or not) and regular conditionals. I first propose that optatives without consequents are properties of propositions, §5.1.3.1. I argue that this proposal explains differences between optative conditionals and regular conditionals, §5.1.3.2, §5.1.3.3 and §5.1.3.4. Further differences between conditional optatives and regular conditionals are explained by paying attention to the difference between optatives and regular conditionals regarding the presence/absence of the meaning of 'desirability', §5.1.3.5.

5.1.3.1 Abstractions over propositions

Optatives without consequents cannot be replied to with *that is false*, (158).

(158) Me: If only I were taller

You: # That is false

(159) Me: If only I were taller, I would have played in the NBA

You: $\surd$ That is false

(Biezma, 2009, ex. (24) and (25))

One could claim that the contrast between (158) and (159) proves that optatives without consequents are fundamentally different from optatives with spelled-out consequents. One

could postulate a difference at the level of speech acts: while optatives with spelled out consequents are assertions (and can thus be replied to with 'that is false') (159), optatives without consequents are 'performative' (and thus cannot be replied to with 'that is false'), (158).

However, there are other constructions that are used to make assertions to which one cannot reply 'that is false' either. Let us look at (160).

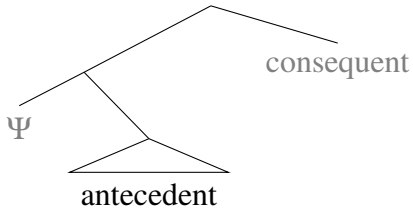
(160) You: Who on Earth wants to wear that dress?
Me: # That is false.

(Biezma, 2009, ex. (26))

Even though the rhetorical question in (160) is used to make an assertion, namely, that *one has to be crazy to wear that dress*, it cannot be replied to with *that is false*. It seems that the difference between (158) and (159) does not necessarily depend on the fact that one asserts a proposition but the other doesn't. I will adopt the view that the reason the rhetorical question in (160) cannot be responded to with *that is false* is because *that is false* needs to be licensed by something of propositional type. Questions do not denote propositions, and even though we can use them to make assertions, they are still sets of propositions, and thus cannot be responded to with *that is false*.

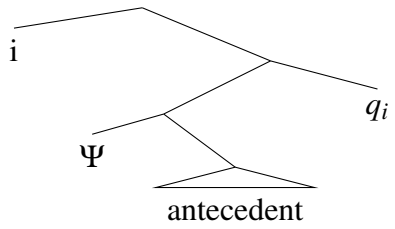
I will argue that it is not possible to respond to optatives with 'that is false' because, as in the case of questions, they do not denote propositions. I will maintain the view that optatives are conditional constructions. In a simplified form, the underlying logical structure is *if* $p \Rightarrow q$. (In this sketch $\Rightarrow$ is standing in for whatever is the correct semantics for the implicit modal, and *If p* is what we actually hear.) What makes optatives different (and needs to be explained) is that instead of a spelled out consequent there is a (silent) proposition variable that is abstracted over, leading to the logical form $\lambda p.\ \textit{if}\ p \Rightarrow q$. Let us consider this in a bit more detail. We have assumed a structure like the one in (131).

(131)



In the case of *if only!*, the consequent position is occupied by a silent proposition-type variable that is abstracted over:

(161)



Given this structure, the denotation of *if only!* would be as in (162), where Ψ is the modal and p is the antecedent proposition.[6]

(162) $\lambda q[p \Rightarrow q]$ (where $\Rightarrow$ represents the interpretation of Ψ)

The proposal allows us to keep the idea that *if only!* and optatives with spelled out consequents both have a conditional structure (and, as we will see later, there is empirical evidence supporting this view). At the same time, the proposal allows us to distinguish optatives with spelled out antecedents and regular conditionals from *if only!* The first denote propositions, while the latter denote properties of propositions. As we will see later, *if only!* optatives are uttered in contexts that allow us to recover a "topic proposition" (sometimes by accommodation). In an actual felicitous utterance of *if only!*, it will always be possible to identify the proposition that the property is meant to be true of, and thus recover the consequent of the conditional.[7] So, even though strictly speaking *if only!* optatives do not denote propositions, their felicitous utterance always allows us to recover a proposition as part of the meaning the speaker intends to convey.[8] A proposal along these lines explains why it is not possible to respond to optatives with 'that is false'. Since they denote properties of propositions, they are neither true nor false.

Notice that the fact that an utterance cannot be replied to with *that is false* does not mean that it cannot contribute information, and in this sense make an assertion. We can still argue that optatives without spelled out consequents make assertions by indicating that they can be replied to with *I agree*. Since optatives are only licensed in contexts in which a topic proposition can be identified, it is always possible to recover the speaker's communicative

---

[6]The resulting type is $\langle\langle s, t\rangle, t\rangle$. This is the same type questions have. This proposal does not assume that there is a one to one correspondence between semantic type and the kind of clause.

[7]I will argue in §5.2.1.2 that the absence of consequents in *if only!* is a case of "topic-drop".

[8]The idea that the link between a property and an argument is provided by context has already been entertained in the literature. For example, according to Portner (2004), imperatives denote properties of individuals that are intended to be true of the addressee. By uttering an imperative, the speaker allows us to understand that he/she wishes the addressee to bring about the truth of the proposition corresponding to the property applied to the addressee.

Notice that the case of HPCs may in principle be different from cases of non-bound null anaphora such as we might find in *The test failed, but only the chief scientist knew* (Chris Potts, p.c., null-complement anaphora), in which an anaphor can interpreted as coreferential with an antecedent. When the anaphors are not bound, they will be interpreted as simply referring to whatever is their value under the contextually salient variable assignment.

intentions and we can use phrases like *I agree* to indicate our agreement. We can observe the same phenomenon in the case of rhetorical questions.

(163) a. Me: If only I were taller
You: I agree[9]
b. You: Who on Earth wants to wear that dress?
Me: I agree

I agree does not need to be licensed by a proposition. Indeed, *I agree* can be licensed even by a facial gesture. Imagine you and I are standing in front of a painting. I just pull a horrible face and look at you. You can respond to that gesture with *Yeah...! I agree*, i.e. you accommodate that with my facing gesture I am claiming that the painting is horrible and then you indicate that you share my opinion.

We find support for the claim that *if only!* constructions are conditionals in the fact that even in the absence of an explicit consequent, we still understand them as conditionals. When processing an optative, the human language processor recovers the consequent, (164):

(164) A: If only I were taller
B: Then your desires wouldn't have become true either[10]

The example in (164) illustrates that the human language processor interprets optatives without consequents as conditionals in which the consequent is desired. After the utterance of an *if only!* construction the human language processor "fills in" a consequent. In the most general case such a consequent is merely that the consequences of the antecedent being true are desired (*If only I were taller, my wishes would come true*), as in (164).

The fact that we can take B to be contradicting A's claim is important because B's claim is itself an overt conditional. The proform (*then*) in B's statement provides the antecedent for the modal 'would'. In this context, it picks out the same antecedent as the one in A's statement. What follows in B's claim is the negation of the implicit consequent in A's claim, and thus we understand that B is disagreeing with A.[11] The shape of B's disagreement provides support for the view that upon hearing A's utterance, we process a conditionalized claim.

In the next sections I will illustrate how this proposal can explain some of the apparent differences between regular conditionals and optatives pointed out by Rifkin (2000). I first offer arguments to support the claim that *if only!* constructions are not propositions,

[9]Thanks to Kyle Rawlins for this data.

[10]I thank an anonymous reviewer at Sinn und Bedeutung 15 for this data.

[11]B's utterance, the conditional *if* $\alpha \Rightarrow \neg\beta$, is the negation of the conditional statement *if* $\alpha \Rightarrow \beta$.

§5.1.3.2–§5.1.3.4. I then argue that *if only!* constructions have a conditional structure, §5.1.3.5, §5.1.3.6.

5.1.3.2 *if only!* optatives can coexist with an antecedent

Rifkin (2000) argues that the contrast presented in (165) is evidence against a characterization of *if only!* optatives as conditionals.

(165) a. If I had gotten there sooner
  i. ∗ ... If I had, I could have saved him
  ii. ∗ ... because if I had, I could have saved him

b. If only I had gotten there sooner
  i. ... If I had, I could have saved him
  ii. ... because if I had, I could have saved him

(Rifkin, 2000, ex. (26) and (27))

Rifkin takes (165) to show that *if only!* optatives can coexist with other antecedents, (165b), whereas regular conditionals cannot, (165a). This contrast shows that there an important difference between regular conditionals and *if only!* constructions.

Let first note that Rifkin's (2000) conclusion regarding the data is not quite accurate. To see this, let's consider (166) in comparison with (165a-i).

(166) If she had arrived on time, (then) if he had arrived on time (too), they would have met.

(166) shows that it is possible to "stack" antecedents of conditionals, i.e. several conditionals can coexist in regular conditionals. Regardless of what the syntax of the antecedent clauses in (166) is,[12] what seems to be clear is that there are two context updates. The utterance of the second *if*-clause in (166) assumes that the proposition in the former *if*-clause, *that she had arrived on time*, is taken to be already part of the common ground, as the (possible) presence of *too* in the second *if*-clause indicates (Heim, 1992).[13] Thus we can have several antecedents coexisting. The question is then what is wrong in (165a-i).

The problem in (165a-i) is that in the enumeration of antecedents, the second antecedent that we mention is exactly like the first one, and it is not acceptable to have two members of an enumeration (list) that are exactly the same (see Zimmermann 2000; Geurts 2005

[12] Alternatives would range between having an analysis in which one *if*-clause is embedded under the other, to conjoined *if*-clauses or simply having them at different syntactic locations in the derivation.

[13] If it is not part of the common ground that someone else, a female, other than the agent of the second proposition had arrived on time, the utterance including *too* would be infelicitous.

for examples). Notice that (167), in which one of the matching antecedents in (165a-i) is changed for a non overlapping proposition, is fine.

(167) If I had gotten there sooner, if I had had the appropriate tools, I could have saved him

(167) strengthens the claim that Rifkin's (2000) description of the data in (165a) is not accurate. Several antecedents can 'coexist' in regular conditionals.

In the case of (165a-ii), the ill-formed status is linked the fact that what is on the left of *because* is not an acceptable utterance: it is an *if*-clause (with no focus adverb) lacking a consequent (merely a restrictor with no nuclear scope). Therefore, (165a-ii) is ungrammatical.

We have seen that Rifkin's (2000) description of the data in (165) is not correct, but this does not explain the contrast between (165a) and (165b), i.e. we still need to explain why the behavior of optatives seems to be different from the behavior of regular conditionals. In what follows I explain the contrast by appealing to the fact that *if only!* constructions are properties of propositions.

Taking into account that *if only!* constructions are properties of propositions, in (165b) we have two independent constructions. In both utterances, (165b-i) and (165b-ii) the speaker utters first an *if only!* construction, and then a regular conditional.

(168) a. *If only* α! *If* α, β [corresponding to (165b-i)]

b. *If only* α! because *If* α, β [corresponding to (165b-ii)]

There is no problem with having two consecutive conditionals with the same *if*-clause, since they are independent constructions. The first construction, the *if only!* optative, expresses a wish, whereas the second makes a statement regarding what would have happened if the speaker had arrived to the scene sooner.

(169) If only I had gotten there sooner (things would be better). If I had gotten there sooner, I could have saved him.

In sum, the difference between (165a-i) and (165b-i) is that in the latter we do not have stacked antecedents in which the propositions overlap (which caused problems in (165a-i)). Rather, in (165b-i) there are two independent constructions and thus the antecedent proposition can be the same.

With respect to *because*, there is a clear difference between (165a-ii) and (165b-ii). Since there are two conditional constructions articulated by *because* (unlike in the case of (165a-ii)), (165b-ii) is fine.

5.1.3.3 Embeddability

Rifkin's (2000) last argument against characterizing *if only!* optatives as conditionals is that they cannot be embedded, whereas regular conditionals can.

(170) a. Avi thinks that if it would snow, things would be good

b. * Avi thinks that if only it would snow

c. Avi thinks that if only it would snow, things would be good

(170a) shows that a conditional can be embedded. However, as (170b) illustrates, *if only!* constructions cannot be embedded. The example in (170b) contrasts with (170c), in which an optative spelling out the consequent is embedded without any problem. According to Rifkin, if *if only!* optatives were conditionals spelling out only the antecedent, they should behave like regular conditionals and, indeed, like optatives spelling out the consequent. In fact, the data in (170) supports the idea that *if only!* constructions are different from optatives with spelled-out consequents in not denoting propositions. This explains why *if only!* constructions cannot be embedded under *think*: *think* embeds only proposition and *if only!* constructions are just not of the right type.

Recall that the analysis proposed above for *if only!* optatives claims that optatives in which the consequent is not spelled out do not denote propositions, but abstractions over pronouns ranging over propositions. This is the reason why they cannot be embedded in the same way as optatives in which the consequent is spelled out, which do denote propositions.

5.1.3.4 Conjunction

Rifkin (2000) argues that the contrast in (171) shows that *if only!* optatives are not conditionals, since they do not seem to behave like them.

(171) a. *If only Sue had money and if she had time, she would ski Mt. Mckinley

b. * If Sue had money, she would ski Mt. Mckinley, and if only she had money

c. If Sue had money, things would be good, and if she had time, she could ski Mt. Mckinley

(Rifkin, 2000, ex. (31), (33) and (32))

Rifkin (2000) claims that the contrast between (171a), (171b) and (171c) shows that *if only!* constructions are not conditionals: they do not behave like regular antecedents of conditionals with respect to coordination. In principle we can conjoin two conditionals without *only*, (171c), but we cannot conjoin one with *only* and one without *only*. However, as Rifkin himself points out (see footnote 5 in Rifkin 2000), it is possible to conjoin two antecedents with *only*.

(172) I can't believe the picnic went so poorly!

a. If only Meg had brought a corkscrew and if only Jim had made a decent salad

b. If Meg had only brought a corkscrew and if Jim had only made a decent salad

(Rifkin, 2000, footnote 5, ex. (iv))

The facts in (172) contrast with the ungrammaticality of (171a).

The contrast between (171a), (171b) and (172) is perfectly explained once we consider that *if only!* constructions are of a different semantic type from optatives with spelled out consequents, even though both are conditional structures. The ungrammaticality of (171a) and (171b) is then explained by the general impossibility of conjoining two objects of different semantic types. This problem does not arise in (171c), since the two conjuncts are regular conditionals (and hence of the same type), and does not arise either in (172), where two optatives are conjoined.

5.1.3.5 Allowing for different follow-up inquiries

Rifkin (2000) argues that *if only!* constructions crucially differ from regular conditionals with respect to which questions are licensed after their utterance. Rifkin's (2000) argument is that if *if only!* optatives were conditionals with presupposed consequents, they would still convey the same information as regular conditionals and thus allow for the same inquiries. However, (173) and (174) seem to suggest that this is not the case, and thus, according to Rifkin, support his view.

(173) J: If only he had called earlier...
K: Why?

(174) J: If he had called earlier...
K: #Why?
K: What?

(Rifkin, 2000, ex. (28) and (29))

Let us examine Rifkin's claims in more detail. Notice that the target of *why?* in (173) (under my assumption, a conditional of the form *if only* α, β) may have different interpretations:

1. If the consequent is not immediately recoverable, *why?* refers to *what are the immediate (and desired) consequences of* α*?*, i.e., *why do you want the consequences of him having called earlier?* (175)

(175) K: John just called. If only he had called earlier...
J: Why would have it been good if he had called earlier?
why? = what? + desirability

In this case, J appears to challenge K's assumption that the consequent is recoverable.

2. If the consequent is immediately recovered, *why* refers to *why do you desire β?* (or *why is β desirable?*)

(176) K: John called me to go to the movies
J: Yes, but he phoned you last minute and you couldn't go
K: I know... If only he had called me earlier!
J: Why do you want to go to the movies with such a jerk?

The differences between optatives and regular conditionals illustrated in (174) are expected if we consider the differences regarding desirability between the two (optatives imply that the consequent is desired and regular conditionals don't). The 'why' question targets desirability, and regular conditionals do not imply desirability. Other examples show that when the 'why' question targets something that is common to both types of conditional structures, they behave in the same way with respect to follow-up inquiries. Consider (177) and (178).

(177) K: Some people get paid millions of dollars to appear in a film and you don't. It is unfair!
I: I know... If I were good looking, I would get paid millions of dollars
I': I know... If I were good looking...
K (clueless): But why would you get paid millions of dollars if you were good looking?

(178) K: Some people get paid millions of dollars to appear in a film and you don't. It is unfair!
I: I know... If only I were good looking, I would get paid millions of dollars
K (clueless): But why would you get paid millions of dollars if you were good looking?

As we would expect in an account in which optatives are conditionals, once we can recover the consequent, the question *why?* targeting the 'causal' relationship is licensed in both the case of optatives and in the case of regular conditionals (*why (if $\alpha \Rightarrow \beta$)?*). When the questioner does not understand the causal relationship between antecedent and consequent, *why?* is licensed after a regular conditional, (177). This is so both when the consequent is spelled out, as in I, or when the intonation is left suspended, as indicated by the ellipsis dots, as in I'. The same is found in optatives, (178).

There is another similarity between *if only!* constructions and regular conditionals in which the consequent is recovered from the previous discourse. The presumed intonation in (174) (marked with '…') indicates that the speaker expects the addressee to be able to

recover the missing consequent without the need to utter it. However, this may not be possible. If the addressee cannot recover the consequent he can ask about it: *what?* Indeed, *what?* is also a possible question after an *if only!* construction, (179).

(179) I: If only he had called earlier
K: What?

if only! conditionals do not spell out the consequent and, as with any other conditional, the hearer can wonder about it once the speaker has indicated (intonationally) that he (the speaker) presupposes that the addressee can recover the consequent. Obviously, if the consequent is spelled out, it is infelicitous to ask about it, either with *what?* or with *why?* (*why?*= *what?*+desirability).

To sum up, the data regarding question licensing is actually more complicated than what is presented in (173) and (174). As we have seen, it turns out that the question *why?* may have different meanings. The data is summarized in Table 5.1.

Table 5.1. Licensing of *why?*

	why? (*why if* $\alpha \rightarrow \beta$)	*why?* (what + desire)	*why desire* β?	*what?*
if only!	√	√	√	√
if α...	√	#	#	√
if only $\alpha \rightarrow \beta$	√	#	√	#
if $\alpha \rightarrow \beta$	√	#	#	#

The table in (5.1) shows that the differences between question-licensing in optatives and regular conditionals has to do with the desirability inference triggered by optatives (optativity itself), which is not present in regular conditionals. In all cases in which desirability is not involved, optatives behave like regular conditionals with respect to follow-up inquiries.

5.1.3.6 *Then*

I have mentioned above that optatives without a spelled-out consequent are preferred to those in which the consequent is phonetically realized. The same is observed in German, included here for comparison.

In German optatives a variety of particles can be found scoping over the antecedent proposition. Without such particles, the conditional needs the consequent to be spelled out, but with the particles the optative is much preferred without the consequent. The data are summarized in (180).

(180) German

a. ? Wenn er nur/ mal/ doch hier wäre, würden wir Fisch essen

if he PRT PRT PRT here be.subj would we fish eat

b. √ Wenn er nur/ mal/ doch hier wäre

if he PRT PRT PRT here be.subj

Interestingly, preferences change when we include a pro-form in the consequent. This is the claim in English ('then') and German ('dann'), (181).[14]

(181) a. If only John were here, then we would have eaten fish. √

b. Wenn er doch hier wäre, dann würden wir Fisch essen √

if he PRT here be.subj then would we fish eat

The sentences in (181) are perfectly fine and much better than their proform-less counterparts. The question is why, when inserting *then* or *dann*, optatives become much better, like (181). I have argued earlier that the consequent in optatives is recovered from the discourse. In this sense, the consequent in optatives is treated as 'discourse old'. I will argue later, §5.2.1.2, that this is the reason why the consequent in optatives is preferably omitted. The question is whether examples like (181) challenge this claim? Why should the presence of a pro-form make a difference?

To answer this question, the first important thing to notice is that for the constructions in (181) to be good, one needs to make a long pause between *then*/*dann* and the preceding material. This gives us a hint as to where the explanation is to be found. The mandatory (unusually) long pause in the constructions in (181) indicates that the material preceding the proforms and the spelled out consequent are actually part of different utterances. That is, in (181), the first part is really an *if only!* construction, whereas the apparent consequent is actually a *simple subjunctive* (terminology here is from Kasper 1992).

(182) $[\textit{if only!}]_{\text{optative}}$ $[\text{Then/dann } \beta]_{\text{simple subjunctive}}$

Simple subjunctives are conditionals with antecedents recovered by a pro-form. In (182) we are not dealing with an optative with a spelled-out consequent. There are two conditional structures, the *if only!* construction, and a simple subjunctive (i.e. a conditional missing the antecedent). In the second conditional (the simple subjunctive), the pro-form recovers the antecedent of the first conditional, the optative *if only!*

When the proform is present in examples like (182), it is not that the optative becomes better and it is now normal to spell out old information. It is that we have two different conditionals. The second conditional is not an optative, but rather a regular conditional.

---

[14] I am very grateful to an anonymous reviewer at Sinn und Bedeutung 15 for pointing out this fact to me.

5.1.3.7 Counterfactuality and uncertainty

Rifkin (2000) argues that *if-only* clauses are necessarily counterfactual. By this Rifkin means both that they require "counterfactual morphology" and that they convey the information that the proposition in the antecedent is false in the actual world.

(183) Traffic is moving very slowly. I hope I'll make it to the Red Sox game

a. If I (will) arrive on time, I'll grab a hot dog and join you in the peanut gallery

b. * If only I (will) arrive on time, I'll grab a hot dog and join you in the peanut gallery

(184) a. If Pam bought candy yesterday, she probably saved me a piece.

b. * If only Pam bought candy yesterday, she probably saved me a piece.

(Rifkin, 2000, ex. (16) and (17))

The difference in judgments between the (a) and the (b) examples given the context provided above seems to indicate that optatives are counterfactual.

Rifkin (2000) offers us more data, which also seems to support the claim that optatives are counterfactual.

(185) The Red Sox need to beat the Yankees tonight to make it to the Word Series, but the Yankees are so good that the Sox seldom win.

a. * If only the Red Sox crush the Yankees

b. If only the Red sox had practiced more

c. If only the Red Sox were to crush the Yankees

In the scenario in (185) only the counterfactual conditionals are good optatives.

I would like to argue that Rifkin is not quite right. What matters in the case of optatives is not actual counterfactuality but the absence of the knowledge that the proposition is true. To see that it is not counterfactuality what is at stake, consider the scenario in (186):

(186) Scenario: I am a huge fan of the Red Sox. The Red Sox play against the Yankees tonight and only by beating them will they make it to the World Series.

a. If only the Red Sox crush the Yankees today

(186a), with no counterfactual morphology and no counterfactual meaning, is fine in this scenario, whereas it was not good in the scenario in (185). What is different between the two scenarios? We know that optatives can be uttered out of the blue (when the consequent is accommodated). However, if the context is supplied, it needs to support the optative. Otherwise, oddity arises from the link with the context. In (185), the scenario makes it clear that we all know that the Red Sox are not going to win. Thus, the optative in (185a),

which does not have counterfactual morphology and does not indicate that the speaker finds it unlikely to become true, is not supported. However, the scenario in (186) does not leave the same impression: there is no indication regarding the final result of the game. Indeed, we can distinguish between the three aspect options, (187).

(187) a. If only the Red Sox crush the Yankees today
b. If only the Red Sox crushed the Yankees today
c. If only the Red sox had crushed the Yankees today

We know that (187a) is good in (186), when the speaker is not biased regarding the possibility of the Red Sox winning. In such scenario, the choice between (187a) and (187b) is determined by how likely the speaker considers the antecedent to be true. However, in this scenario, (187c) is bad. (187b) is similar to (185c). In (185) the scenario is biased towards the Red Sox not winning: the speaker knows that there is little hope that the proposition in the antecedent is true. (187b) is also good in (185), and neither (187a) nor (187c) are good. Now imagine a scenario in which the game tonight has been cancelled, and since the calendar is so tight they give half a victory to each team and no one wins. Half a victory is not enough and the Red Sox are left out of the World Series. In such scenario, in which the proposition is already known to be false, (187c) is fine, and neither (187a) nor (187b) are good.

To summarize, the choice in (187) depends on the speaker's epistemic state, as in regular conditionals (e.g. Iatridou 2000). However, it is crucial for optatives that the speaker not know that the proposition is true: if the speaker knows that the antecedent is already true, the optative is infelicitous. This makes sense, since optatives convey desires and we don't express a wish for something happen if we already knows it to be true.

The fact that counterfactuality is not crucial is further supported by (188):

(188) Scenario: Sam is running late to catch the bus. He still needs to get his shoes on. He doesn't quite remember where he put them, but he thinks they are in the living room. If he finds them in the living room, he will still be on time. If they are not in the living room and he has to spend more time looking for them, he won't catch the bus.
a. SAM: If only my shoes are in the living-room

Notice that (188a) is an optative and it is not counterfactual: the speaker does not know whether the proposition is true or false (he is ignorant about the fact) and the sentence also lacks counterfactual morphology. Thus, for an optative to be licensed it is enough that the speaker not know whether the antecedent proposition is true.

Further illustration of non-counterfactual optatives are provided below:

(189) a. (commenting on the picture of a bento box)
nice blog indeed!! think i saw some of them before!!
if only i ll get a japanese gf one day...
(seraphimvc, http://www.boards.ie/vbulletin/showthread.php?p=65864606)

b. Mom: "If only you'll be as successful as Gabriella."
Me: "If only I'll get a boyfriend as sweet as Troy."
(iSuckedJBsDick,
http://twitter.com/iSuckedJBsDick/status/44221746315927554)

c. If only I am elected mayor, the city will see real changes
(Moldoba.org/Politicom, November 9, 2005)

d. If only he is as good as Socrates, I am content
The discourses of Epictetus:: Book I: Chapter II
www.sacred-texts.com/cla/dep/dep003.htm

e. The penguin matchmaking song
[...]
Oh, yes if you like penguins
we're a match meant to be
if only you like penguins
we'll be perfection, you'll see!!
[...]
http://www.girlinthemiddest.com/
Sibylle Machat, 2002

To summarize, the data above illustrate that counterfactuality is not required in optatives. Rather, what is required is that the speaker not know that the proposition in the antecedent is true. This will be the case if either the speaker knows that the proposition is false or if the speaker does not know whether it is true. Either way, the optative will be felicitous. In addition, we have also seen that, as in regular conditionals, the difference between the present, perfective and perfect in optatives signals the epistemic state of the speaker. In sum, optatives behave very much like regular conditionals, with constraints arising only from the fact that they express a wish.

5.1.4 Experiment: *if only!* and quantificational structures

I have argued above that *if*-clauses with a focus adverb scoping and associating with a proposition, i.e. optatives, are conditionals even though they lack a consequent. We have seen several arguments supporting this claim, including the fact that optatives without spelled-out consequents are like regular conditionals with respect to negation, follow-up questions, and morphology. In this section we will add one more important argument to this list.

If optatives consisting only of an *if*-clause are conditionals, they are quantificational structures. As we have seen in the case of HPCs in chapter 4, this predicts that there is a difference between if only p and if only p' when $p \subseteq p'$: the weaker alternative in the antecedent of a conditional leads to a more informative statement.[15] Following the reasoning in HPCs and considering a cooperative participant, we also expect the speaker of an optative to make the strongest claim he can. Hence, if there are two possible alternatives that can bring about the desired consequent (p and p', with $p \subseteq p'$) and if optatives without consequents (*if only* α) are conditionals, we expect speakers to utter the optative spelling out the weaker alternative. The prediction is that if only p' will be preferred over if only p. Let us illustrate this with a scenario we have seen earlier.

(190) There are many cab companies in the city, and they only differ in color (they all have the same speed/efficiency record). You did not take a cab to get to your meeting, and you were late. Now you are whining about it.

You: If only I had taken a cab

You': If only I had taken a red cab

In (190), taking a cab is weaker than *taking a red cab* (i.e. a red cab is a kind of cab). If optatives without consequents are conditionals (i.e. they have a quantificational structure), we expect a difference between the two optatives in (190). Indeed, we would expect a preference for the optative in which the weaker alternative is spelled out (*If only I had taken a cab*), since that makes the most informative claim according to the utterance goal of bringing about the speaker's desires (see discussion in chapter 4). Intuitions, as in the case of HPCs, support this very strongly in the case of (190). An experiment was conducted to test the robustness and generality of the intuitions and more carefully support the claim.

5.1.4.1 Method

Materials

Six experimental scenarios like the one in (190) were constructed (all appear in Appendix Y). Every scenario was followed by two possible optatives consisting only of an *if*-clause. The alternatives spelled out in the two optatives were always in a subset relationship. This included relationships like *any-specific* (as in (190)) or *some-more* (as in *2 blocks away - 4 blocks away*). In all cases the truth of the antecedent proposition would have brought about the speaker's desires.

[15] As we saw in chapter 4, we need to consider a strict semantics that allows monotonicity.

Participants and procedures

Nineteen University of Massachusetts students completed a written questionnaire for extra-credit. They read instructions indicating that they were to provide preference judgments after reading each scenario. They were told that there were no right or wrong answers. They were also asked to include any comment they might have after each item. In (191) there is an example of how the items were presented.

(191) There are many cab companies in the city, and they only differ in color (they all have the same speed/efficiency record). You did not take a cab to get to your meeting, and you were late. Now you are whining about it.
Which of the next utterances would be more acceptable?

If only I had taken a red cab	
If only I had taken a cab	

Comments:

5.1.4.2 Results and Discussion

The results showed a very strong preference for the weak alternative. A total of 105 responses (92%) favored the optative presenting the weak alternative over the optative presenting the stronger one.[16] With these overall results, it is easy to anticipate that we find a significant difference between Weak and Strong responses. The resutls of *t*-tests (which tested the proportion of responses favoring the *weak* alternative against 0.5) show a significant difference between optatives spelling out the weak alternative (which I will refer to as *weak optatives*) and those spelling out the strong alternative (*strong optatives*), both by subject ($t(18) = 18$, $p < 0.0001$) and by item ($t(5) = 6.9$, $p < 0001$).[17]

---

[16]Indeed, the results were not closer to 100% because one item seemed to be affected by non-controlled factors. This was item (A4), repeated in (i) below. ?

(i) Rick wanted to park as close as possible to downtown at 1:00 pm (he needs to do some chores and expects to leave at 2:30 pm). He parked on the first street considered downtown. That day there was a parade and traffic was prohibited in the downtown area from 2:00 pm until 3:00 pm. Rick gets stuck, he is unable to move his car and he regrets having parked there.
   a. If only I had parked one block away
   b. If only I had parked four blocks away

Participant S13 may have explained why this sole item was different from the others. This participant justified his response (he chose the strong option, (ib)) by writing in the comment line "better safe than sorry". If this is the reason why 6 other participants (a total of 7 participants out of 19) chose the strong option in this item) chose the strong alternative too, the reason for choosing the strong option is tied to the fact that, when it comes down to traffic, world knowledge brings some participants to disbelieve the conditional statement itself. For those subjects the problem is not choosing between two true conditionals differing in the strength of the spelled-out antecedent. The problem is figuring out which conditional is true. When it comes to traffic, participants do not seem to trust that the weak alternative is enough. They do not appear to believe the conditional statement (that the weaker alternative would really keep them away from traffic mayhem).

[17]The exact p-values were $5.88\text{x}10^{-13}$ in the t-test by subjects and 0.0009339 in the t-test by items.

Discussion

The results of the experiment show that speakers prefer optatives with the weaker alternative to those with a stronger alternative. Thus there is a difference arising from the proposition in the *if*-clause. This is predicted by a theory of *if only!* constructions in which *if only!* constructions are conditionals and the speaker is committed to making the most informative statement regarding the utterance goal. When uttering a conditional, we want to give as much information as possible regarding what is true in the actual world related to the informative goal of the utterance. This is achieved by choosing the weakest alternative amongst the ones available. In optatives, the goal is to find how the desired worlds would have been brought about. With respect to (191), both *taking a cab* and *taking a red cab* would have brought about the desired worlds. However, speakers prefer the weak optative presumably because it makes a more informative claim.[18]

This theory also predicts that when the two alternatives are equally possible and not in a subset relationship there should be no preference. Three items were included in order to control for this. The three items were similar to (i) with the difference that the two propositions in the antecedent were not in a subset relationship. An example is in (192).

(192) Karen went to a restaurant and got food-poisoning. The tomato sauce used in most of the dishes was not good. The only two dishes without tomato sauce were salad and penne with Alfredo sauce. Now she is whining about it.

a. If only I had ordered a salad

b. If only I had ordered penne with Alfredo sauce

The propositions in the optatives in (192) are not in a subset relationship and are equally plausible in the scenario in (192). Thus no preference is predicted under the account proposed in this dissertation. The results of t-tests (again testing the proportion of *weak* responses against 0.5) show that there is no significant difference between the two options for these examples, neither by item ($t(2) = -0.5$, p-value$= 0.65$) nor by subject ($t(17) = -1.05$, p-value$= 0.30$). In fact, participants often commented on these three items (and often they did not comment on any other items) and claimed that "the choice seems arbitrary". The most extreme case was the case of Subject 17, who refused to give an answer (this participant indicated a preference in every other item) and yet wrote a comment saying that the reason was that both responses were equally possible.[19] Thus the results for

[18] By looking at the contrast between *you take a cab* and *you take a red cab* one could worry that the effect observed is due to the preference of choosing the non-modified alternative, versus the modified alternative, i.e. *you take cab* is preferred because it is not modified. However, there were items in which the subset relationship did not rely on modification. These items presented alternatives such as *you leave one hour earlier* vs. *you leave two hours earlier*. These cases behave like the modified cases. Thus there is little risk that the effect is due to modification vs. the lack of it.

[19] Because this subject did no data were recorded for these items and he was taken off from the statistics. This is the reason why $df = 17$ in these t-tests.

these items support the claim that the difference found in the experimental items was based on the subset relationship between the antecedent propositions.[20]

There is still one point that needs discussion. Let me summarize where the discussion is at this point. So far I have argued that the results of the experiment show that participants preferred the weaker alternative to the stronger one (when the antecedent propositions are in a subset relationship). I have argued that this is a further argument supporting the claim that *if only!* constructions are conditionals, since this is what we expect if *if only!* constructions are conditionals and the goal of uttering one is to make the most informative claim that would bring about the speaker's desires. Thus we would always prefer *If only I had taken a cab!* to *If only I had taken a red cab!* Furthermore, if we assume the speaker is cooperative, we also infer that if he says *If only I had taken a red cab!*, then not just any kind of cab would have done the trick.

However, the results of the experiment alone would not be enough to guarantee that *if only!* constructions are conditionals. One could also claim that an analysis in which *if only!* constructions are just *if*-clauses embedded under a covert modal would deliver the same results. If we consider any other modal we may get some similar intuitions. Let's look at (193).

(193) a. I should have taken a cab

b. I should have taken a red cab

If John is late for a meeting and an regrets it, and he utters (193b) instead of (193a), the inference is that not just any cab would have been enough. The similarity between our intuitions with respect to *if only!* constructions and our intuitions in (193) could make the cases look alike. However, there are differences. Let us carefully compare the two constructions, (194).

(194) a. If (only) I had taken a red cab, I would have arrived on time

b. I should have taken a red cab

Let us suppose that *should* in (194b) has an epistemic modal base and a bouletic ordering source: *According to what we know, I should have taken a taxi*. In that case, we restrict the modal domain to those worlds compatible with what John knows, and claim that the best worlds within that domain are all worlds in which John takes a red cab. If the best worlds are taken to be worlds in which John arrives on time and taking a blue cab would have allowed me to arrive on time, then it would be false to say *I should have taken a red*

[20]The raw preference rate for the item in (192) was 10/8 of the first option over the second. This also indicates that the length of the response does not play a role (*a salad* is significantly shorter than *penne with Alfredo sauce*. This could have been a concern when looking at the results for the experimental items, since the stronger items were often longer than the weaker ones. However, the results found in the controls (together with the participants comments regarding the difficulty of choosing amongst the options) show that length does not play a defining role.

cab. This is because the claim *I should have taken a red cab* says that in all the best worlds (the worlds in which John arrives on time) John takes a red cab. However, there are also best worlds in which John takes a blue cab.

In the case of conditionals, the proposition is not the nuclear scope, as in the case of (194b), but the restrictor. The claim is that the most similar worlds to the actual world in which John takes a red cab are worlds in which he arrives on time. It does not deny that taking a blue cab, for instance, would deliver the same results. The reason one may decide to utter the conditional with the weaker proposition (*I take a cab*) instead of the stronger one (*I take a red cab*) is not that the conditionals with the antecedent *I take a red cab* is false, but rather that one wants to make the most informative statement.

To summarize, uttering (194b) in a scenario in which any cab would have made John arrive on time is false, and we expect speakers to choose the true statement, *I should have taken a cab*. And uttering (194a) in a scenario in which any cab makes John arrive on time is less informative than the conditional in which John takes any cab, and we expect speakers to choose the most informative statement. The experiment does not control for this difference. Under either of the two analyses we would expect the same results: in the modal analysis because the modal claim in which the embedded proposition is *I take a red cab* is false, and in the conditional analysis because taking the weaker proposition makes a more informative statement.

However, this alternative analysis of *if only!* as embedded under *should* fails to explain the many arguments we have made showing that *if only!* constructions are conditionals. Morever, an analysis according to which there is a modal would have to assume a very peculiar modal. We would need to speculate that there is a special modal, in particular a bouletic modal (and it has to be always bouletic) that only targets the speaker's desires (never the addressee's), that is always covert, and that we do not see anywhere else.

In sum, the fact that speakers prefer the weakest alternative in *if only!* constructions is not sufficient in itself to establish that *if only!* constructions are conditionals. What is true is that in order to establish that they are conditionals, we need them to behave exactly in the way they seem to behave according to the results obtained in the experiment.

To sum up, the results from the experiment support the claim that there is a difference between optatives regarding the strength of the antecedent proposition, indicating that *if only!* constructions do indeed present a quantificational structure. This additional fact, added to the other evidence reviewed above, lead me to conclude that *if only!* constructions are just conditionals without a spelled out consequent.

5.1.5 Conclusion

In this section I examined the characterization of optatives as conditionals. Our discussion was guided by Rifkin's (2000) empirical observations. However, my conclusions are different from Rifkin's. I have refined Rifkin's data set and added to it to build a case that

all optatives have a conditional structure. Even in cases in which no consequent is spelled out, the structure we observe is the antecedent of a conditional. I have argued that optatives without spelled-out consequents denote properties of proposition with a pronoun variable over propositions in the consequent and abstracted over. Such structures are licensed only in contexts in which the consequent is recoverable (discourse old). I have shown that the semantic type difference between such optatives and those with overt consequents allows us to derive the bulk of Rifkin's (2000) observations without giving up on the conditional structure. I have also provided evidence that optatives without spelled-out consequents are like regular conditionals (e.g. with respect to negation, follow-up questions, the epistemic effect of tense and aspect morphology, and quantification).

5.2 Desirability and the IQuD in optatives

We have observed that desirability, characteristic in optatives, is brought about by the presence of a focus adverb.

(195) a. If I were taller, I would play in the NBA [not optative]

b. If only I were taller, I would play in the NBA [optative]

The only (surface) difference between (195a) and (195b) is the presence of a focus adverb. Indeed, optatives are prototypically illustrated with *only*. However, optativity does not depend on a particular focus adverb. To see this let us look at (196).

(196) a. English

i. If *at least* I had been taller, I would have played in the NBA

b. Spanish[21]

i. Si (*tan*) *siquiera* / *tan sólo* hubiera sido más alto, habría

if (as) least as only had been more tall would have

jugado en la NBA

played in the NBA

[21] Below there are some natural examples in Spanish

(i) si tan siquiera hubiera sido El el q dira ese gran paso !!no cren? jajaja tengo muchisimas cosas mas q decir, pero este beso lo resumire en una palabra: BIEN
'if at least it had been HIM who started it, don't you think? (laugh) I have a lot more to say, but this kiss I will just summarize with one word: GOOD'

Re: El momento "beso" de R-H
por Linda_r: Dom Ago 30, 2009 10:32 pm
http://harrypotter.lsf.com.ar/momento-beso-t46062-30.html#p2123598

c. German

i. √ Wenn er nur/ mal/ doch hier wäre

if he PRT PRT PRT here be.subj

In English, *at least* also displays optativity when it obeys the restrictions we already described for *only* in §5.1.2, i.e. the constraints regarding scope and association. In Spanish, optativity in conditionals can be obtained with *tan sólo* and *siquiera*.[22] Speakers find these optatives a little bit archaic and disprefer them, but many still accept them with both focus adverbs. The case of German also argues in favor of an account of optatives in which optativity does not depend on a particular focus adverb, since there is a whole range of focus particles that can bring about optativity. All these data indicate that optativity does not depend on the choice of a particular focus adverb. Optativity seems to depend more generally on the presence of a focus adverb in a certain position with a certain association, as described in §5.1.2. Optativity arises because of the effect of a focus particle associating with the proposition in the antecedent.

This section of the chapter investigates how desirability is generated in optatives. As we have noted, desirability is tied to focus adverbs, indicating that a role must be played by information structure and discourse. In what follows, §5.2.1 and §5.2.1.2, I will begin by examining information structure in optatives, and show that in this kind of conditional the usual information structure relations in conditionals are reversed. I will afterwards relate optatives to the discourse and discuss the relationship between optatives and the implicit question under discussion, §5.2.3. I will show that there is a special role played by focus adverbs in linking optatives to the previous discourse and argue that desirability can be

---

[22] Below there are some natural examples with *at least* in English.

(i) LUDAL: Hello all,
I have searched on the forum but I didn't find the plugin i'm looking for. Do you know if there is a plugins that plays sounds when typing like it was with ICQ : one sound for typing, one for sending message and one for deleting characters ?
OTACON: Nope, there's no plugin, but you can write it (Smily face)
LUDAL: If at least I had time and knowledge to do it (Smily face) don't assume I'm a programmer because I use free software (Smily face) I'll check, but I think it's easier for someone who is familiar with emesene plugins than for someone like me.

http://forum.emesene.org/index.php?topic=1937.0

(ii) I keep thinking, if at least I were doing really well, it wouldn't bug me so much that younger kids are getting married before I do.

www.observer.ug/index.php

(iii) But now that I'm living in an apartment and not in a detached house in the middle of the countryside, I would give ANYTHING for the birds instead of my stupid neighbour playing guitar at 3.00am..... If at least he was musically gifted....!
Frenchie
Last edited by Frenchvanilla (Tue 19 Aug 08 5:12pm)
http://www.jamieoliver.com/forum/viewtopic.php?pid=297690

derived from this interaction. By the end of the section we will see that it is possible to derive the desirability characteristic of optatives from the interaction of independently motivated components: the information structure of optatives, the effects of focus adverbs and relations with implicit questions under discussion. The explanation of desirability rests on the pragmatics of optatives and does not require ad hoc stipulations about conventionalized meanings nor silent desirability modals.

5.2.1 Topicality in optatives

5.2.1.1 Topic and focus in optatives

In what follows I adopt the notion of topic in Reinhart (1981), which is based on Strawson's (1964) characterization of *aboutness*. Strawson's notion of topic overlaps with what has been commonly understood as 'old information', which we could identify with the information in the Common Ground (Stalnaker, 1978, 1998, 1991, 2002). However, Strawson adds that a constituent is understood as a topic only if the assertion is intended to expand our information about that topic. As Reinhart (1981) points out, "the crucial thing here is not what can be assumed to be already known, but what can be assumed about the purpose of the utterance". This follows Strawson's view that "what is known and what the assertion is about 'often and naturally overlap' and not that they always have to overlap." (Reinhart, 1981, pg. 59)

Besides communicative intentions, Strawson introduces another criterion for the identification of the sentence topic. This is the criterion of *verification*, i.e. how we conclude whether a given assertion is true. According to Strawson, "assessments of statements as true or false are commonly, though not only, topic-centered". To check whether *John came* is true we can either go through our knowledge of John and see whether he came (and *John* would be the topic), or check all the people who did come and see whether John is amongst them (the people who came are the topic).

Under this characterization of sentence-topic as *aboutness*, what is 'old information' is not the only thing that matters. The status of the information just affects potential topichood, but does not determine it. The purpose and context of the utterance also play a role It has been argued in the literature that the antecedents of conditionals are topics (Haiman, 1978; Ebert et al., 2008; Endriss, 2009; Endriss and Hinterwimmer, 2010). In the case of counterfactual conditionals (let's take *If Peter had gone shopping, there would be pizza in the fridge* as an example), we are in a case similar to the case of indicative conditionals. In both cases there is a dependence between the truth of the consequent and the truth of the antecedent, and the consequent provides new information and comments on the proposition in the antecedent.

Let us examine this in more detail. In regular conditionals the communicative intention is to provide information about the worlds most similar to the actual world in which the antecedent is true (setting aside differences between indicatives and counterfactuals). And,

indeed, regular conditionals can serve as a response to the explicit request for information regarding the antecedent.[23]

(197) A: Do you know whether María defended already?
B: If María had defended, she would have gone back to Spain for the summer

The question in (197) establishes the discourse topic. The sentence topic in the response has to agree with the discourse topic. The conditional in (197) is felicitous in this discourse because the information structure of the conditional fulfills this requirement. However, notice that the utterance of the (regular) conditional is not quite felicitous if we try to make the consequent of the conditional the topic:

(198) A: Do you know whether María went back to Spain for the summer?
B: #? If María had defended, she would have gone back to Spain for the summer
B': Well, she had to finish her dissertation first. If María had defended, she would have gone back to Spain for the summer

It is complicated to get sharp judgments regarding topicality in conditionals because often we can easily accommodate what we need in order to consider the utterance acceptable. However, it is clear that there is a contrast between B and B'. When the proposition in the antecedent has already been introduced in the discourse and the sentence topic can be taken to be the antecedent, the conditional is perfect (198B'). However, notice that the conditional in (198B') is not an answer to the question A is asking. The conditional is understood as part of the reasoning of the speaker and is only licensed by the previous utterance by B'.

We have established that the antecedent of a (regular) counterfactual conditional is a topic, as in any conditional. It is an aboutness topic. The situation is different in optatives. As we noted in §5.1.2, a conditional only obtains an optative meaning when there is a focus adverb scoping over and associating with the antecedent proposition. In the case of optatives we see the reverse pattern of regular conditionals: in optatives the antecedent is focused and the consequent is the topic.

(199) Information structure in optatives: *If only* α, β
a. α is focused
b. β is the topic

The presence of a focus adverb in optative conditionals leads to a reversal of the information structure in regular conditionals.

[23]The strategy of using questions to identify focus is a common one. However, as Reinhart (1981) already points out, one needs to be careful when using it.

5.2.1.2 Optatives and topic-drop

The fact that the consequent in optatives is the sentence topic, thus treated as discourse old, explains why it can remain silent. The possibility of not spelling out the consequent in optative conditionals is the result of *topic drop*.[24] We know from the ellipsis literature that non-focused material can remain silent,[25] (as long as all the focused material is spelled out and other syntactic constraints are fulfilled). In the case of optatives, the consequent is presupposed (it is assumed to be backgrounded) and thus can remain silent. In regular conditionals, the consequent is taken to be the focus, and thus it has to be spelled out. In fact, as we saw in §5.1.3.6, it is common to find conditional structures in which the antecedent is left out, but the consequent needs to be spelled out (see Kasper 1992, for example).

When uttering only the antecedent in an optative, the human language processor has enough information to interpret a conditional structure: it has an *if*-clause and can unambiguously give it a conditional interpretation. The consequent (topic) is silent due to topic drop. The prediction is that such structures are licensed only if the consequent can be recovered. Only then will it be possible to shift focus to the antecedent. The backgrounded consequent can be instantiated with a silent variable. The denotation of the optative is a property of propositions but the licensing conditions are determined by the presence of a recoverable topic (this is what we also saw for HPCs in chapter 3).

What happens in cases where no topic is immediately recoverable? In this situation the human language processor can, at the very least, accommodate that there is a consequent, and that this consequent is desired. Recall the data we examined in (164) above.

(164) A: If only I were taller

B: Then your desires wouldn't have become true either

We argued above that the data in (164) illustrates how the human language processor interpreted optatives as conditionals and accommodated a consequent. The accommodated consequent, if nothing else, can be as general as the claim that the consequences of the antecedent being true are desired by the speaker (*If only I were taller, my desires would come true*).

Since the the grammaticality of *if*-clauses lacking a consequent depends on the antecedent proposition being focused, speakers' judgments regarding optativity are very strong when the consequent is not present. Predictably, those judgments are less strong when the

[24]The term *topic-drop* usually refers in syntax to constructions in which there is silent material, but there is covert syntactic structure. This is not exactly the sense in which I 'use topic-drop' here. I am not assuming that there is any syntactic structure left in the consequent. The consequent is just a variable abstracted over.

[25]See for example (Rooth, 1992; Merchant, 2001, a.o) for focus sensitive theories of ellipsis and the claim that elided material is always non-focused, or treated as background or given information.

consequent is present. Let us illustrate this with the example in (200a), which we already saw above in (154). Imagine a context in which grandpa always does the opposite of what his daughter (*mom* in the examples below) asks him to do.

(200) a. If only mom invited grandpa, grandpa wouldn't come at all

i. Reading 1: In the case that mom asked grandpa to come, grandpa wouldn't come, because he always does the opposite of what mom asks him to do (no desires directly conveyed)[26]

ii. Reading 2: The speaker wants grandpa not to come, and he would fail to come if mom invited him (because he always does the opposite of what mom asks him to do).

b. If only mom invited grandpa

i. (Only) Reading 2: (assuming that the presupposed consequent is *grandpa wouldn't come*) The speaker wants grandpa not to come, and he would fail to come if mom invited him (because he always does the opposite of what mom asks him to do).

In the case of (200), in which the conditional with *only* has a consequent spelled out, there are two possible readings depending on focus marking. The most prominent reading involves optativity, (200a-ii) (the whole antecedent is focused). However, the context may be biased towards a non-optative reading that is also available when the consequent is present, (200a-i) (*mom* is focused). When the consequent is spelled-out it is not necessary to have association between the focus adverb and the antecedent proposition in order to have a grammatical sentence. Other associations are possible without leading to ungrammaticality (since the consequent, the focused element, is spelled-out).

5.2.2 Interim Summary

Up to this point, I have argued that optatives are conditionals in which the consequent is desired. I have also argued that in optative conditionals the focus adverb scopes over and associates with the antecedent proposition. We have seen arguments supporting the idea that the information structure in optatives is reversed with respect to regular conditionals.

We still need to explain where desirability comes from. At this point we have two obvious choices. We can stipulate that there is a covert operator that brings about desirability, or we can try to derive desirability from the very difference between optatives and regular conditionals, i.e. the presence of a focus adverb in the antecedent obeying distribution and association constraints. I will follow the latter strategy.

---

[26]This is another odd, (dispreferred) reading, since the claim appears obvious.

In the next section I argue that the modal meaning in optatives is brought about pragmatically by the change in topicality and hence from the question under discussion. I argue that desirability in optatives is a pragmatic inference triggered by discourse assumptions.

In §5.2.3 I introduce the framework of Roberts (1996), Büring (2003), and Roberts (2004), later taken up by Beaver and Clark (2008). I use it explain where desirability comes from.

5.2.3 Tracking down speaker's intentions

Roberts' (1996) theory of discourse, followed by Roberts (2004), is devoted to the recognition of the role of the interlocutor's intentions in the generation of meaning. Following Grice (1957, 1989), Roberts accepts that in order to understand the actual meaning of an utterance, it is necessary to pay attention to the speaker's intentions at the core of the utterance.

Roberts models discourse following Grice's idea of providing a framework for discourse as a sequence of intentional actions structured with a given goal. Following Stalnaker (1978), Roberts takes it that the main goal of a discourse is the communal inquiry to discover what the actual world looks like. Following Stalnaker, Roberts assumes that there is a Common Ground (CG), "the mutually recognized share of information in a situation in which an act of trying to communicate takes place" (Stalnaker, 2002). The CG is modeled as set of propositions, and is related to a *context set*, defined as the set of possible worlds compatible with the sets of propositions in the CG. The main goal of a discourse then is to narrow down the context set to finally obtain a singleton, namely, the set containing only the actual world.

Roberts takes questions to be the obvious counterpart of an inquiry and uses them as the formal objects reflecting intelocutor's goals. In Roberts' system, speaker's intentions are tracked by assuming that every utterance is an answer to an (implicit) question that the speaker agrees to address (*pay-off moves*), i.e. the *immediate question under discussion* (IQuD),[27] or a question itself (*set-up moves*). Assertions are pay-off moves because they choose between the alternatives proffered by a set up move.[28] This said, in this system the interpretation of every move involves two aspects: (i) the presupposed content, which constrains the contexts in which an utterance can be made, and (ii) the proffered content, which corresponds with what is asserted (in assertions) and the non-presupposed content of questions and commands.

---

[27] This corresponds to Beaver and Clark's (2008) *current question*.

[28] Questions are taken to induce partitions of the logical space in which each cell of possible worlds contains worlds compatible with a complete answer.

Besides recognizing that the primary goal of every discourse is a communal inquiry, Roberts also recognizes the existence of more particular goals in the actual world, *domain goals*. These goals are ultimately what lie behind the type of conversational inquiry conducted by the speaker.

5.2.3.1 The IQuD in optatives

I have argued above that optatives are conditionals in which topicality is reversed. In a framework in which every assertion is assumed to be an answer to an (implicit) question (the IQuD), the question then is, What is the IQuD in optatives?

In answers, we find focus on the elements that are being questionned, (201).

(201) A: What did Lauren buy?
B: Lauren bought $[_{\text{F}}$ BANANAS$]$

Even if B's utterance were not preceded by an explicit question, we could assume, because of the structural characteristics of B's utterance (syntax and intonation), that the utterance was answering the question *what did Lauren buy?* The question under discussion has to be congruent with the utterance.

In order to find out what the IQuD is in optatives, we need to make some assumptions about the semantics of conditionals more generally. As stated in chapter 4, I assume that a conditional *if* α, β claims (roughly) that *in the most similar worlds to the actual world in which* α *is true,* β *is true* (*à la* Lewis-Stalnaker). The IQuD is also sensitive to information structure. As we saw above, §5.2.1, in a regular conditional *if* α, β, the antecedent proposition, α, is the sentence topic, understood as aboutness (Strawson, 1964; Reinhart, 1981), and β is the sentence focus. β expands the information on α, i.e. β expands the information on what the relevant worlds in which α is true look like. Considering the information structure of regular conditionals, the IQuD when a regular conditional (*if* α, β) is uttered would be as in (202).

(202) What does α bring about? or
What would α have brought about?

The conditional uttered as answer to the question in (202) provides the answer via the consequent, β, which bears focus.

(203) A: What would happen after the fall of the dictatorial Government?
B: If the Government fell, a democratic system would be established

The consequent proposition, *a democratic system is established*, is the answer (although a partial one).

The situation with optatives, however, is different. As argued above, in optatives (*if only* α, β) topicality is inverted and β does not bear focus. The sentence focus is α, the an-

tecedent, whereas β, the consequent, is now the topic. According to this, and considering the semantics of conditionals, I claim that the IQuD when an optative is uttered is in (204).

(204) How do we bring β about? or
How would we have brought β about?

The IQuD when an optative is uttered asks what are sufficient conditions to bring about the consequent (the topic). The question is not 'what are the consequences of α' (as in (202)), but rather 'what are the conditions to bring about β'. The questions in (204) are a special kind of question. They ask how to bring about a state of affairs, and in this (broad) sense they are *goal* oriented questions.[29] Intuitively, a speaker who asks such a question is interested in the best way to bring about the relevant state of affairs. An exhaustive list of all the ways to bring about such a state of affairs is not required. We see this also when examining other questions of the same kind, (205).

(205) How do I get to the supermarket?

The privileged reading of (205) is one in which the person asking (205) only wants to learn about the best way to go to the supermarket, not all the ways to go to the supermarket (although there are contexts in which the reading arising is the one in which the questioner is interested on the exhaustive list of ways to get to the supermarket). This is the reason why these questions are also called *mention-some* questions.[30] This feature of *mention-some* questions will play a role later on.

The questions in (204) have another important characteristic: they imply that the proposition embedded in the question is desired by the speaker. To see this, let us look at the questions in (206).

(206) a. How do I get to the supermarket?
b. How do I get to play in the NBA?
c. How do I get to die?

The question in (206a) implies that the questioner wants to get to the supermarket and asks about the best way to get there the addressee is aware of. This is illustrated in (207).

(207) John is walking on the street and stops one of the pedestrians and asks him a question.
John: How would I get to the supermarket?

---

[29] I am using the term *goal oriented* in a very broad sense. Goal oriented is meant to indicate that the question inquires about how to bring about the desired state of affairs, without implying agentivity.

[30] In order to avoid problems with the terminology, I will refer to these questions as *mention-some* questions henceforth.

Bill: Walk south and turn right on the next street.

John thanks Bill and starts walking north.

After John starts walking north Bill would be perplexed, since he would wonder why he is going in the opposite direction to that of the supermarket. He might even be tempted to call him out and indicate that he is walking just opposite to what he indicated, south is in the other direction. This is because John's utterance implied that he wants to go to the supermarket. The same strategy would show that in (206b) it is implied that the speaker wants to play in the NBA. And the question in (206c) is odd in most contexts because it implies that the speaker wants to die and that is an odd desire to have.

We have examined some features that would follow if the IQuD in optatives were a mention-some question as in (204). Can we find additional support for the view that the IQuD must be a mention-some question? In figuring out the IQuD, the semantics of conditionals and their information structure have played a role. But this is not enough to claim that the IQuD in optatives is a mention-some question. If the semantics of conditionals and the change in information structure were all that was relevant, we could also argue that the IQuD when an optative is uttered is as in (208):

(208) Under what circumstances would β be true?

The question in (208) is not a mention-some question. It could be answered by a conditional with reversed topicality in which the antecedent provides the answer. Given the semantics of conditionals and information structure in optatives, (208) would be a possible IQuD for an optative.

The difference between (204) and (208) as IQuDs lies in the characterization of β (the consequent) as a goal in (204) but not in (208). The question in (204) can be answered with a non-exhaustive list (just the best alternative suffices), but this is not possible in (208). To see this consider the following scenario. Imagine that there are two circumstances under which it rains in Palo Alto: (i) the wind is cold, (ii) the wind comes from the east. In this scenario, consider (209) (assuming that the addressee of the question is aware of the two cases).

(209) A: Under what circumstances would it rain in Palo Alto?

B: ?# If the wind were cold, it would rain in Palo Alto

C: # If only the wind were cold

D: If the wind were cold or if the wind came from the east, it would rain in Palo Alto

In most scenarios, A's question in (209) is not asking about one random circumstance under which it would rain in Palo Alto. It is not asking about the best (most probable) circumstance under which it would rain in Palo Alto. It is asking for an exhaustive answer

(it requires a 'mention-all' answer). Hence, if the addressee of the question knows all the circumstances under which it rains in Palo Alto, and the addressee is a cooperative interlocutor, the felicitous answer would be D's (more on this below). Given a question like (208), the answer must be exhaustive. There is no 'best alternative' that could replace an exhaustive answer.

To understand which IQuD an optative tries to answer and justify the choice of (204), we have to first understand what kind of answer an optative is (mention all or mention some). Optatives are not simply conditionals in which topicality is reversed. If that were the case, the question in (209) would certainly be an appropriate IQuD, and we just saw that this is not the case (C is infelicitous in (209)). There is still another ingredient to be considered. In the above discussion regarding optatives we have not paid much attention the semantics of *only*. In the next sections I will argue that certain aspects of the semantics of the focus adverbs involved in optatives are crucial in establishing the IQuD an optative tries to answer. I will argue that the scalar adverbs signals that the IQuD is a goal-oriented question requiring a best-alternative type of answer. In particular, I will appeal to the fact that these adverbs are scalar. In the following section I introduce Beaver and Clark's (2008) proposal for *only*.

5.2.3.2 Only

Beaver and Clark (2008) consider *only* to have a primarily pragmatic function, "to modulate the flow of information in the discourse in which [it] appear[s]". For them "the primary function of any lexically focus sensitive expression is information structural." This means that expressions involving *only* are used to comment on the C(urrent) Q(uestion), or on "how a proffered answer relates to an expected answer".[31]

Beaver and Clark's (2008) analysis of *conventionally focus sensitive* expressions (like *only*) argues that such expressions encode a dependence on the IQuD. As the authors point out, their proposal is not the first claiming that there is a relation between focus sensitive expressions and the IQuD. Other authors had already established the link with the discourse topic or the IQuD (von Fintel, 1994; Roberts, 1996). However, Beaver and Clark (2008) go a step further and claim that this relationship is encoded in the meaning of the focus-sensitive expressions and that they *must* comment on the IQuD. In their own words

> "All focus sensitivity has to do with pragmatics, but lexically focus sensitive expressions have an intrinsically pragmatic function. [...] we claim that the function of excusives like *only* is to say that the strongest true answer to the IQuD is weaker than some expected answer."
>
> (Beaver and Clark, 2008, pg. 42)

[31] Beaver and Clark's (2008) Current Question corresponds to our Immediate Question under Discussion (IQuD). In what follows I will use IQuD instead of CQ to avoid confusion with the preceding sections.

Beaver and Clark (2008) propose that *only* presupposes an open question, the Current Question (IQuD) in the discourse (Roberts, 1996, 2004; Büring, 2003), and comments on it, (see (214) below). For an utterance to be felicitous, the questions it addresses must have certain properties, (210).

(210) **Current Question Rule:** The Current Question must contain at least one true alternative, and contain multiple alternatives which are not resolved as true or false in the common ground.

(Beaver and Clark, 2008, (2.53))

The (implicit) question the participants try to answer can be inferred from the speaker's utterance, (211):

(211) a. **Discourse Principle:** Utterances should be maximally relevant to the IQuD.

b. **Focus Principle:** Some part of declarative utterances should evoke a set of alternatives containing all the Rooth-Hamblin alternatives of the IQuD.

(Beaver and Clark, 2008, (2.54))

Roberts argues that the accepted question becomes the immediate topic of discussion, and the participants' goal is to answer this question. In order to achieve the common goal of answering this question, the participants "may follow certain rules, both conventional (constraints in the syntax and the semantics) and conversational (such as the Gricean maxims)." Discourse is organized according to a principle of Relevance that preserves coherence between the possible *moves*. Roberts (1996) considers *relevance* in terms of the question under discussion at a given time.

(212) A move m is Relevant to the question under discussion q, iff m either introduces a partial answer to q (m is an assertion) or is part of a strategy to answer q (m is a question).

(Roberts, 1996, ex. (15))

A cooperative speaker will try to make their utterances relevant and at the very least every assertion would be at least a partial answer. Once accepted, questions have to be answered or else participants have to agree that they cannot be answered. Moves have to be kept congruent with the questions they try to answer.

(213) Move β is **congruent** to a question $?\alpha$ iff its focal alternatives $[\![\beta]\!]$ are the Q-alternatives determined by $?\alpha$, i.e. iff $\beta = Q - \text{alt}(\alpha)$

(Roberts 1996, ex. (25) after von Stechow 1989)

Beaver and Clark (2008) adopt Roberts's (1996) theory and put it into service to provide an account of exclusives.

(214) **Meaning of exclusives** (sentences with *only*) (from Beaver and Clark 2008)

> **Discourse function:** To make a comment on the Current Question (IQuD), a comment which weakens a salient or natural expectation. To achieve this function, the prejacent must be weaker than the expected answer to the IQuD on a salient scale
>
> **Presupposition:** The strongest true alternatives in the IQuD are *at least* as strong as the prejacent.
>
> **Descriptive Content:** The strongest true alternatives in the IQuD are *at most* as strong as the prejacent.

In Beaver and Clark's (2008) words

> "What an exclusive presupposes is not anything like the prejacent or existential proposition *per se*. What an exclusive presupposes is an open question of a certain type, namely one that the speaker takes to have been partially answered, and for which there is a salient expectation of a much stronger answer."
>
> (Beaver and Clark, 2008, pg. 253)

Beaver and Clark's (2008) account is illustrated in the example below.

(215) **Subjective autograph scale** (Beaver and Clark, 2008, pg. 258)

(10.12) a. Brady only got a [Soames]$_F$

b. IQuD: What celebrity signatures did Brady get at the Philosophy of language party?

The potential answers to the IQuD are ordered from weak to strong, either because some answers entail other answers, or through a pragmatically relevant ordering such as **newsworthiness**.

(10.13) a. Prejacent proposition: Brady got a X, with X = Soames

b. Breakdown of alternative values of X:

> **Stronger:** Any set containing Putnam, Kripke, Kaplan, Searle, or similarly influential philosopher, and any set containing multiple philosophers of significance as Soames

Weaker: Any set not containing a philosopher as significant as Soames

Neither: Any set containing exactly one philosopher other than Soames but of comparable significance (Bealer, Perry...), and any number of less significant philosophers.

Equal: Any set containing Soames and some number of less significant philosophers.

According to Beaver and Clark (2008), "[t]he expectation is that Brady got a really worthwhile autograph. [...] What we end up with is the presupposition that Brady got a Soames or better. The entailment is that Brady didn't get anything the interlocutors consider really good, like a Putnam, and didn't even get multiple autographs from philosophers of comparable stature to Soames." They summarize their inferences in (10.14).

(10.14) Inferences associated with (10.12) *Brady only got a* $[Soames]_F$

Presupposition: Brady got a Soames, or else something better

Entailment: Brady got no better autograph than Soames

Implication: Brady got Soames' autograph, and possibly others of lower significance

In what follows I put Beaver and Clark's (2008) hypothesis to work on the case of optatives. I will use this to support my arguments in favor of a mention-some question as the IQuD when an optative is uttered.

5.2.3.3 The scale in optatives

With the previous background in hand, let us see now how *only* works in optatives. Consider the optative in (216).

(216) John had a job interview this morning. He drove there but his car broke down. John called Tom, a mechanic friend, but by the time he got the car running it was too late for John to make it.

Tom: If *only* I had arrived earlier

In order to make use of Beaver and Clark's (2008) proposal, we need to adapt it to the case of conditionals. The optative uttered by Tom is "If only I had arrived earlier, John would have gotten to his interview on time". With the assumption that the antecedent proposition is focused, the prejacent itself is X. In the context of the optative conditional, we obtain (217):

(217) If X, John would have gotten to his interview on time
(Where X= Tom arrives on time and repairs John's car)

The alternative values for X are presented in (218), are ordered according to a scale provided by what could intuitively be thought of as *likelihood* (factors like the degree of deviation from the history of the actual world, the effort required to bring about the truth of the proposition, and plausibility can all play a role here). The strongest alternatives are the most likely ones, while the weakest alternatives are the ones that require more effort, are more implausible given the history of the world, etc.

(218)

$+(likely)$	John drove his car more carefully
	Tom arrived earlier and fixed the car
	Tom fixed the car faster
$-(likely)$	John went out and bought a new car

In (218) we find a variety of alternatives. The order is provided by likelihood and the amount of effort required to bring each about. Suppose that John is actually a careful driver and Tom is habitually late. It would have been more likely/easier for John to drive even more carefully than he actually did than for Tom to arrive on time. John is actually rather poor, so the amount of effort it would have taken for him to buy a new car, and the unlikelihood of that happening, is much greater than what is the case for the alternative corresponding to Tom arriving on time.

I will follow Beaver and Clark (2008) with respect to the presuppositions and descriptive content associated with *only*. Since we are dealing with alternatives that are antecedents of (counterfactual) conditionals, we cannot ask for the strongest true alternative. Instead, in the context of a conditional, we will look for the strongest sufficient alternative. When Tom utters the optative in (216), he presupposes that the strongest sufficient alternatives are at least as strong as the antecedent proposition. The descriptive content associated with Tom's claim is that the strongest sufficient alternatives are at most as strong as the antecedent proposition.

Let us examine the predictions made by this proposal with respect to (216). Tom's utterance carries the presupposition that the sufficient alternatives are at least as strong as the chosen alternative. This is true, since the only other sufficient alternative (that Tom fixed the car more quickly) is as strong as the chosen alternative (the other sufficient alternatives are weaker). The descriptive content associated with Tom's utterance is that the strongest sufficient alternatives are at most as strong as the chosen alternative. This is true given our scale, since the stronger alternatives are not sufficient (the car breaking down had nothing to do with John's driving style).

The proposal above makes correct predictions regarding unacceptable optatives in this context. Imagine that in the scenario above, Tom had uttered *If only you had driven more*

carefully! This would have been deviant in the context, since driving more carefully would not have had any useful consequences. We would be surprised by Tom's utterance. The deviancy is predicted. The descriptive content associated with such a claim would have been false. This is not the strongest sufficient alternative. Indeed, this is not a sufficient alternative at all. With Beaver and Clark's assumption that *only* marks the strongest sufficient condition, this optative is predicted to be deviant.

Let us turn to another deviant optative. Suppose that in the scenario above, Tom had uttered *If only you had bought another car*. This optative would also have been deviant. John would have felt that Tom's utterance was a bit exaggerated. This is also predicted by the proposal above. The presuppositions associated with Tom's utterance would not be respected. There are sufficient alternatives that are stronger than the chosen alternative. Again, the proposal predicts that this optative is deviant.

The role of *only* in an optative is to signal the position that the antecedent proposition occupies on a scale. We have followed Beaver and Clark (2008) with respect to the presuppositions and descriptive content associated with *only*. Given that our interest lies in *only* in the antecedent of conditionals, we have not relativized the scale to truth, but to the sufficiency of the proposition to bring about the consequent. The scales we have adopted order the alternatives in terms of *likelihood*, with the most likely being considered stronger. This has the result that propositions that are harder to bring about, or wildly implausible, are characterized as weaker. This may appear rather unintuitive, but, as we have seen, this scale fits our intuitions regarding the acceptability of optatives.

In §5.1.4 I pointed out that when we have two alternatives in a subset relationship, speakers uttering an optative choose the weaker alternative in order to make the most informative statement. This was taken to support the idea that *if only!* constructions are conditionals (they have a quantificational structure). Here I am arguing that alternatives are also ranked in a scale associated with *only* and that speakers choose the strongest alternative that brings about the consequent. Below I explore the relation between these two claims, showing how they interact with each other to make the right predictions.

One question that immediately arises is whether we actually need the two criteria, or whether we could manage only with the scale triggered by the focus adverb. What is at stake is whether concerns regarding informativity play a role together with issues regarding deviance from actual facts, or whether all the cases that I have so far discussed in terms of informativity can be captured by means of the scale set up in terms of plausibility and deviance associated with *only*. What we need are examples that show that informativity plays a role on top of the scale associated with *only*. Examples in which alternatives have an equal position in the scale associated with *only*, but differ in terms of informativity. If we find preferences in this kind of example, we can show that informativity plays a role.

Consider again the contrast between *If only I had taken a cab* and *If only I had taken a red cab*, (190).

(190) There are many cab companies in the city, and they only differ in color (they all have the same speed/efficiency record). You did not take a cab to get to your meeting, and you were late. Now you are whining about it.

You: If only I had taken a cab

You': If only I had taken a red cab

As we have indicated earlier, in this kind of example *If only I had taken a red cab* is dispreferred. Let us examine this more closely, with the hypothesis that only the scale associated with *only* matters and informativity does not play a role. If the preference indicated above were to be explained only in relation to the scale associated with *only*, the alternative *If only I had taken a red cab* would have to be lower on the scale triggered by *only* than the others. However, there is evidence that this is not the case. Suppose that there are four color of cab available: red, yellow, blue and green. In this scenario, *If only I had taken a cab* is taken to mean 'a cab of any color'. In a situation in which I have not taken a cab, the four colors that are available are equally deviant from what has actually happened: taking a cab of any of those colors would have meant equal departure from actual world facts (from what has actually happened). We can see that they are equally deviant from actual world facts because the counterfactuals associated with each of them are all false (*If I had taken a cab, it would have been a yellow cab; If I had taken a cab, it would have been a blue cab* etc., are all false in that scenario). As we have noticed earlier in chapter 4, counterfactuals care about deviance from actual world facts. They quantify over the most similar worlds. The fact that the counterfactuals are false indicates that, given that I have not taken a cab, the alternatives corresponding to the different colors are equally deviant from what has actually happened and thus none can be ranked over the other (otherwise at least one of those counterfactuals would be judged as true, i.e. it would be true that in the most similar worlds to the actual world (the least deviant worlds) in which I take a cab, such cab is of a particular color).[32] If we assume that *only* measures deviance from actual facts in a manner similar to counterfactuals, the difference between the cab color alternatives cannot be ranked.

The discussion above indicates that the scale triggered by *only* is not enough to explain why *If only I had taken a cab* is preferred to *If only I had taken a red cab*, and argues in favor of the claim that an additional criterion is playing a role in optatives. The optative *If only I had taken a cab* is preferred to *If only I had taken a red cab* because the claim made by the conditional uttering the antecedent proposition *I take a cab* (which includes the four color options) is more informative than the conditional uttering the proposition *I take a red cab*.

[32]Even in a situation in which it is more probable that a red cab would pass by, let's say we are in a part of town in which red cabs pass by more frequently, the counterfactual *If I had taken a cab, it would have been a red cab* is false.

To sum up, we have seen that the alternative chosen in an optative is the strongest alternative in the scale triggered by the focus adverb. However, this criterion alone does not suffice to make all the right predictions. We have seen that the scale triggered by the focus adverb does not suffice to fully account for our intuitions. Given a choice, the speaker will choose the most informative statement, which corresponds with the optative in which the weaker (less restrictive) alternative is spelled out. Thus both criteria, scalarity triggered by the focus adverb and infomativity, coexist and are necessary. By themselves, neither is sufficent.

We have not discussed Beaver and Clark's (2008) claim that *only* weakens salient or natural expectations. A discussion of this point remains for future work. It is worth noting that the case of conditionals is different from the case of assertions discussed in Beaver and Clark (2008). It is unclear how expectations would work in the antecedent of (counterfactual) conditionals. Notice that in Beaver and Clark's (2008) example *Brad only got a Soames*, getting a Soames is understood as being 'less' than was expected/hoped for. However, in the context of a conditional *If only Brady had gotten a Soames!* the judgment disappears. Expectations seem to work differently in the case of conditionals, but this discussion lies outside the scope of the current work.

5.2.3.4 From *only* to the IQuD

We now have an understanding of the role of *only* in optatives: *only* indicates that the antecedent is the best (strongest on a scale) sufficient condition that brings about the consequent. Let us turn now to the nature of the IQuD that are addressed by optatives.

The semantics of questions and what constitutes an answer has been the object of study of numerous scholars. For example, Higginbotham and May (1981) and Groenendijk and Stokhof (1984) consider that the only complete answers to a *wh*-question are the answers providing an exhaustive list of elements true of the predicate. However, Hamblin (1958, 1973) and Karttunen (1977) assume that answering a question involves knowing what counts as a good answer, i.e. its answerhood conditions. In Roberts' terms, the answerhood conditions of a question are given by the discourse goal.[33] In this sense, a good answer is one that resolves the issue, and this is not necessarily the proposition that entails all the true alternatives.

The traditional example illustrating the discussion above belongs to Groenendijk and Stockhof. In Groenendijk and Stokhof (1997), they consider a scenario in which a tourist stops someone on the street and ask 'Where can I buy an Italian newspaper?'. The authors recognize that "clearly, [the tourist] does not want you to provide her with a complete specification of all the places where Italian newspapers are sold. All she wants is that you

[33] See also Ginzburg (1995).

mention *some* of the places." Indeed, what the tourist wants is to know, amongst all the places where she could buy a newspaper, the most "convenient" place that the addressee can come up with.[34] Most likely, the *relevant* answer is the answer naming the closest place where she can get an Italian newspaper. Thus, an answer listing all the possible places where she can get an Italian newspaper does not resolve the issue and is not a good answer, and maybe even not an answer at all. To sum up, an answer to a question is such that it resolves the raised issue, i.e. it fulfills the answerhood conditions.

Questions asking for the 'best' answer according to the questioner's goal, not for an exhaustive answer, are called mention-some questions. The best analysis of mention some questions is beyond the scope of this dissertation. There are proposals that encode semantic ambiguity and proposals favoring pragmatic underspecification, as well as mixed proposals. What is important to us here is that mention-some readings are raised in certain contexts, i.e. are contextually dependent, and that the answerhood conditions of an uttered question raising a mention-some reading are such that the answer meets the questioner's goals. Regardless of how we account for mention-some readings in questions, it has been argued in the literature that certain types of questions privilege mention-some readings over exhaustive readings. For example, Asher and Lascarides (1998) argue that *how* and *where* questions give rise to a mention-some reading in most cases, and Lahiri (2002) indicates that existential readings (i.e. mention-some readings) are more easily available when the embedded interrogative is a wh-infinitive.[35]

The discussion of mention-some questions is linked to optatives because an optative has to be congruent with a question raising such a reading. An optative is a conditional. Conditionals do not make complete answers, since they do not provide necessary conditions, but only sufficient conditions and the semantics of the conditional modal is such that the conditional can be true even if the antecedent does not spell out the complete set of alternatives leading to the consequent. All that the modal requires is that the antecedent be a sufficient condition to bring about the consequent (we appealed to this in the previous section). However, the presence of *only* ensures that the alternative expressed in the antecedent of the conditional is the strongest alternative in a given scale. According to the discussion above, the alternative spelled out in optatives is the strongest sufficient alternative in a scale based on deviance. [36] One question that immediately arises is how we can go from this to the

---

[34]What *convenient* means is contextually provided.

[35]Lahiri 2002, pg. 92, footnote 11.

[36]The claim is that the presence of *only* scoping over and associating with the antecedent proposition indicates that the IQuD is a mention-some question. However, the data in (i) seem to present a counterexample to this claim.

(i) A: What happened?
B: Only that Mary came

claim that the alternative spelled out in optatives is the 'best' alternative and hence to the assumption that optatives are answers to mention-some questions. The claim we need in order to derive desirability, the claim I am after, is that the alternative spelled out in optatives is the best alternative that the speaker knows of to bring about the consequent. So far, the claim I have made is that *only* in optatives can only trigger a scale based on deviance and that the alternative spelled out in the antecedent of optatives is the strongest of such possibilities (the least deviant alternative amongst the sufficient alternatives). However, by itself, this does not ensure that the alternative spelled out in an optative is the best alternative. The claim that the alternative spelled out in the antecedent of a conditional is the best alternative to bring about the consequent would allow us to claim that if an optative is an answer to a discourse question, that question has to be a mention-some question (i.e. that the discourse goal is to find the best way to bring about the consequent).[37] The last step, the step that goes from claiming that the antecedent proposition in an optative is the strongest sufficient alternative in a scale of deviance to saying that such proposition is the best alternative to bring about the consequent remains a speculation. Intuitively, it makes sense that uttering a conditional in which the antecedent is as specific as to provide the strongest sufficient alternative responds to a discourse goal in which we are looking for the best alternative to bring about the consequent, and hence we can derive desirability. The speculation is that the less deviant alternatives are the best in the sense that they single out the easiest, less effortful manner to bring about the consequent. Further research into the scale associated with 'only' would be needed to cash out this speculation.

Let us illustrate the claims made above with an example. Maria and Cristina are talking about their mom, who may or may not visit their grandma next weekend.

(219) Cristina: Hum! Mom hasn't made up her mind about visiting grandma.

In B's utterance *only* scopes and associates with the entire proposition, and yet B's answer is an answer to a question whose reading is a mention-all reading. Thus, we cannot claim that *only* scoping and associating with the proposition alone forces the IQuD to be a mention-some question. However, the example in (i) is not a fair comparison with optatives. As we have seen, the scale built with antecedents of conditionals is based on sufficiency and deviance, whereas that is not the scale we find in assertions like B's. It is true though that the claim needs to be more fine grained: the presence of *only* scoping over and associating with the antecedent proposition indicates that the IQuD when an optative is uttered is a mention-some question, not a mention-all question. I would like to speculate that this is due to properties of conditionals, which typically provide sufficient conditions for the consequent (they can receive pragmatically strengthened 'perfect' interpretations depending on context. See Geis and Zwicky 1971; Cornulier 1983; Horn 2000a; von Fintel 2001a). The claim is that the only available scale triggered by *only* in conditionals is a scale based on sufficiency and deviance, and thus the exhaustivity implicature triggered in (i) is not found in *if only* α, β.

[37]The questions in (204) (*How do we bring* β *about?* or *How would we have brought about* β*?*) are of this kind. Crucially, questions privileging mention-some readings are 'goal' oriented questions. I take the term 'goal'-oriented here very broadly, i.e. that the desired states of affairs is brought about. This does not necessarily involve agentivity, as in the case of *what would it take for it to rain in Palo Alto?*, in which the questioner probably can do nothing to bring about the proposition embedded in the question. These questions imply that the proposition embedded in the question, which corresponds with the the consequent of the optative, is desired.

At this point, Maria could decide to respond to Cristina's utterance by enumerating all the things that she thinks would make her mom visit grandma.

(220) Maria$_1$: Well, it would help her decide if grandma spruced up the guest room, or helped her out with the trip expenses...

Maria's utterance indicates that she understands that the IQuD is *under what circumstances would mom visit grandma?* This would not indicate that it is desired that her mom visit grandma. Indeed, she could follow up her utterance with, *but I really hope she decides not to*. Certainly, in uttering (220), Maria assumes that the topic of conversation is about the different possibilities that would make her mom visit her grandma. However, Maria could also decide to utter (221).

(221) Maria$_2$: If only grandma decided to help her out with the trip expenses

The general discourse topic that Maria identifies after Cristina's utterance still involves the circumstances under which her mom would visit grandma. But by uttering the optative, in which a scalar particle is present, Maria makes it clear that the question she is addressing is a *mention-some* question, i.e. a question that takes for granted that there is a best-answer according to a contextually determined scale. Again, what indicates that the question addresses the optative is a *mention-some* question is the presence of *only* scoping and associating with the proposition in the antecedent. The question Maria$_2$ is trying to answer, the question that best represents her goals when uttering the optative, is in (222).

(222) What would it take for mom to visit grandma?

Crucially, the question in (222) implies that the proposition embedded is desired. As we have seen earlier, goal-oriented questions trigger the pragmatic inference that the embedded proposition is desired. Since we understand optatives as addressing goal-oriented (mention-some) questions, we understand that the consequent proposition (the 'topic' corresponding to the proposition in the IQuD) is desired. Desirability is thus derived pragmatically from the interaction of the scalar focus adverb and the congruent IQuD.

5.2.3.5 Summary and a cautionary note on IQuDs

In this section I have proposed an account of optatives in which the optative meaning is derived from the presence of *only* and the ways in which this adverb in the antecedent of a conditionals changes topicality. The semantics of *only*, its scalar nature, also makes an important contribution in deriving desirability. I have argued that desirability in optatives is brought about pragmatically as discourse inference triggered by the IQuD that we take for granted when an optative is uttered.

The proposal that desirability in optatives comes about pragmatically via the IQuD may seem a little bit too strong when talking about a question that may not even be spelled out.

Indeed, as we will see below, optatives are never answers to an explicit question. Nevertheless, we need not to lose sight of what IQuDs really are: they represent discourse goals but don't need to be explicit questions. As we saw when I introduced Roberts's (1996) framework, the main goal of a conversation is communal inquiry, and the discursive counterpart of an inquiry is taken to be the question. We saw that, besides the general goal of finding out what the actual world is like (the communal inquiry), the more immediate discourse goals that are also exemplified by questions: the immediate question under discussion (IQuD) is really the discourse counterpart of the immediate discourse goal. Identifying the IQuD is a way of recognizing the goal addressed by a given utterance. When claiming that desirability in optatives is a discourse inference triggered by the IQuD, the actual claim is that it is an inference triggered by the assumption regarding what the immediate discourse goal is.[38]

5.3 HPCs and Optatives

We began this chapter by making a comparison between HPCs and optatives. Both constructions are conditionals in which the consequent is desired and yet there is no lexical item encoding desirability. The goal was to investigate how desirability is derived in optatives and then use that explanation to account for desirability in HPCs. With an account of desirability in optatives in hand, we will now investigate whether the same explanation extends to HPCs. In principle, considering the similarities between the two constructions, things should be easy. However, there are also important differences between the two. English optatives have a focus adverb in the antecedent, which triggers the change of topicality and identifies the IQuD as a goal-oriented question from which we derived desirability. In contrast, HPCs are always replies and they need a cue, whereas optatives don't. In what follows I argue that desirability in HPCs is derived in the same way as it is derived in optatives. I further argue that the differences between the constructions explain fine grained dissimilarities in the interpretation.

Before going ahead, let me first introduce a brief discussion on Spanish optatives. I argue below that desirability in HPCs is derived the same way it is derived in English optatives, but not much has been said so far about Spanish optatives themselves, i.e. conditionals in which the consequent is assumed to be desired. I have mentioned above that optative conditionals in Spanish do not require a focus adverb scoping over and associating with

[38] Optatives are not good answers to an explicit question and thus their associated IQuD is never spelled out. In the next section, §5.3, I will argue that desirability in HPCs is derived in the same way as in optatives. However, unlike optatives, HPCs can be answers to explicit questions. In that case, the question is a mention-some question as discussed above.

the antecedent proposition.[39] However, this is not the only difference between English and Spanish optatives.

English optatives can never be used as responses to questions.

(223) A: How would you have managed to play in the NBA?

B: #If only I had been taller

The dialogue above is not accepted by English speakers. English speakers do not like optatives to be used as responses to direct (spelled out) questions. However this is not the case in Spanish. The following dialogue in Spanish is perfectly acceptable.

(224) A: ¿Cómo hubieras conseguido llegar a jugar en la NBA?

how had.2.sg.Subj gotten arrive to play in the NBA
'How would you have managed to play in the NBA?'

B: Si sólo hubiera sido más alto, (podría haber llegado a la NBA)

if only had been more tall could have.Inf arrived to the NBA
'If only I had been taller, I would have played in the NBA'

B': Si tan siquiera hubiera sido más alto, (podría haber llegado a la NBA)

if at least had been more tall, could have arrived to the NBA
'If at least I had been taller, I could have played in the NBA'

Spanish speakers' intuitions regarding optatives with focus adverbs in Spanish are that they archaic, and thus they are dispreferred. However, setting this point aside, the dialogues in (224) are perfectly acceptable. Unlike English optatives, Spanish optatives are good responses to questions. In other respects, Spanish optatives and English optatives behave alike. Since optatives in Spanish are possible without focus adverbs, the presence of a focus adverbs in the antecedent of conditionals associating with a constituent smaller than the proposition does not prevent the conditional from being understood as an optative, (225).

(225) A: ¿Cómo hubieras conseguido llegar a jugar en la NBA?

how had.2.sg.Subj gotten arrive to play in the NBA
'How would you have managed to play in the NBA?'

B: Si hubiera sido sólo un poquito más alto

if had.1.sg been only a little more tall
'If only I had been only a little bit taller'

In English too, optatives accept focus adverbs in the antecedent of conditionals associating with smaller constituents:

[39] I come back to this in §5.3.2.

(226) A: The photos in of the party are funny. You are so much taller than the man you were dancing the waltz with.

B: Yeah...! If only I had been only a little bit taller.

(227) A: It is a pity we didn't have time to talk to the party, I had to make sure my sister had a good time.

B: Yeah...! If only only [YOU] had come to the party

In English, a focus adverb scoping over and associating with the antecedent proposition is needed, as discussed above. However, other focus adverbs, associating with smaller constituents can also be present.

The fact that there is no need to have a focus adverb in Spanish optatives does not mean that the restrictions observed above for English optatives do not apply. As in English optatives, no every proposition is acceptable as an antecedent proposition in a Spanish optative, (228).

(228) John decides to visit his aunt for afternoon tea so he can see Uncle Tom, who is visiting and can only stay for a little while. John does not own a car, and since he lives reasonably close by, he decides to go on foot. He realizes half way that it is taking him longer than expected. In the end he is late and Uncle Tom has already left.

Aunt: I'm sorry but uncle Tom left already.

Aunt: ¡Argh! Si hubiera tomado un taxi, (habría llegado a tiempo).

if have.1.sg.Subj taken a cab would have arrived on time

'Jeez! If only I had taken a cab, I would have arrived on time'

Aunt': #¡Argh! Si hubiera alquilado un coche, (habría llegado a

if have.1.sg.Subj rented a car would have arrived on

tiempo).

time

'Jeez! If only I had rented a car, I would have arrived on time'

Both alternatives, taking a cab and renting a car, would have brought about the consequent, i.e. that the addressee arrives on time and thus gets to see uncle Tom. They both provide sufficient conditions. However, the alternative of renting a car seems "too much". This indicates that the different sufficient alternatives are also ranked with respect to each other, arguing in favor of the presence of a covert *only*. I will return to this discussion below in §5.3.1. There I provide a more detailed discussion in reference to the same phenomenon in HPCs.

5.3.1 Deriving desirability in HPCs

I have argued that desirability in optatives is derived from the discourse goal. The presence of a focus adverb scoping over and associating with the antecedent proposition was important to establish the discourse goal. This focus adverb triggered a scale, and hence an optative was interpreted not merely as providing information, but also as giving sufficient conditions to achieve a particular goal. Desirability was derived as a pragmatic inference from the goal-oriented IQuD. In HPCs, however, there is no scalar adverb that we can see, and thus there is apparently no morpheme to indicate that the discourse goal when uttering an HPC is other than purely information-seeking.

One way to explain how the desirability of the consequent is derived in HPCs is to appeal to the fact that HPCs are always replies. As we know, for an HPC to be felicitous, it needs to have a cue (see discussion in chapter 2 and chapter 3). The claim then is that the cue needed in HPCs establishes the discourse goal and indicates that the presupposed consequent in HPCs is desired. Let us illustrate this with the scenario in (229):

(229) A: I'm sorry I'm late

B: [B understands that A desires to have arrived on time.

Immediate goal: How would A have arrived on time?]

Haber salido antes [HPC]

have.Inf left earlier

Speaker B recognizes that A would have liked to arrive on time (otherwise, why would he apologize?). How to arrive on time then becomes the discourse goal and the HPC offers an alternative that would have delivered the desired outcome. The cue for the optative uttered by B in (229) is A's utterance, from which is understood that A desires to have arrived on time, and B takes it that the open question asks about the ways in which this would have been possible.

If we can derive desirability in HPCs from the *cue* in the discourse, then there is no need to appeal to a scalar operator. However, it seems that HPCs do behave like optatives with respect to the scalar phenomena observed above.

(230) John decides to visit his aunt for afternoon tea so he can see Uncle Tom, who is visiting and can only stay for a little while. John does not own a car, and since he lives reasonably close by, he decides to go on foot. He realizes half way that it is taking him longer than expected. In the end he is late and Uncle Tom has already left.

John: I'm sorry I'm late

Aunt: Haber tomado un taxi

have.Inf taken a cab

Aunt': # Haber alquilado un coche

have.Inf rented a car

The example in (230) is based on the scenario in (216) including an optative. Both alternatives, taking a cab and renting a car would have brought about the consequent, i.e. that the addressee arrives on time and thus gets to see uncle Tom. They both provide sufficient conditions. However, the HPC in which the alternative spelled out is to rent a car is not good. The intuition is that renting a car in order to arrive on time is "too much". This means that the different (disjoint) sufficient alternatives are also ranked with respect to each other. Furthermore, the scale that arises resembles the scale we considered in optatives in (216). Let us consider (231).

(231)

+	John calls saying that he is late
	John takes a cab
	John leaves earlier
−	John rents a car

Imagine we consider that in HPCs we have something like a silent *only*. Let us adopt the proposal for the semantics of *only* and its behavior in conditionals sketched above (just like in optatives). The order in the scale in (231) is based on sufficiency and deviance.[40] With the assumption that there is a silent 'only' and the proposal for 'only' presented above, Tom's utterance in (230) carries the presupposition that the sufficient alternatives are at least as strong as the chosen alternative. Again, this is true in (231) since the only other sufficient alternative, that John leaves earlier, is as strong as the spelled out alternative. Again, the descriptive content associated with the HPC, assuming a covert *only*, is that the strongest sufficient alternatives are at most as strong as the chosen alternative, which is borne out since the stronger alternatives are not sufficient (John calling to say that he is late does not make him arrive on time to see uncle Tom).

The proposal that HPCs involve a covert *only* makes the right prediction with respect to unacceptable HPCs. If John's aunt had uttered an HPC spelling out the alternative that John calls to say he was late, this would have been deviant in the context, since calling would not have had any useful consequences in this context. In an account of HPCs in which we assume a silent *only*, the deviance is predicted because the alternative chosen is not the strongest sufficient alternative (it is not sufficient at all). In the same way, the utterance of an HPC in which the alternative spelled out is that John rents a new car is also deviant. This HPC would have felt very exaggerated. This too is predicted: there are sufficient

[40] As in (216) above, factors that can play a role on building up the scale involve things like the degree of deviation from the history of the actual world, the effort required to bring about the truth of the proposition, and plausibility.

alternatives that are stronger (i.e. less difficult) than John renting a car. The proposal that HPCs have a silent *only* correctly predicts that the HPC spelling out the alternative that John rents a car is deviant.

To sum up so far, I have observed that HPCs not only include a sufficient condition to bring about the desired consequence. I have argued that possible sufficient conditions that would bring about the consequent are ranked, and I have shown that the assumption that there is a silent *only* in HPCs makes the right predictions.[41] Under this proposal, HPCs and optatives differ regarding the need to have an overt operator to signal scalarity: scalarity needs to be marked overtly in English, although this is not necessarily so in Spanish.

The proposal that there is a covert scalar element makes further predictions. I said above that the discourse goal when an HPC is uttered is set up by the *cue*. As we saw in (229), the *cue* can establish that there is a consequent that is desired. However, nothing prevents us from having a *cue* that does not convey any desire and establishes a purely information-seeking goal. It turns out that HPCs are not good in those circumstances.

(232) A: I hate basketball, but I sometimes wonder,
¿Qué circumstancias hubieran favorecido que hubiera jugado en la NBA?
'What circumstances would have favored that I play in the NBA?'

B: # Haber sido más alto

have.Inf been more tall

HPCs are not good answers for information seeking questions. This is explained if we consider that, as in optatives, HPCs involve a scalar item. As in the case of optatives, HPCs spell out the strongest sufficient alternative, not all the alternatives. The answerhood conditions for a purely informative question would require a list of all the sufficient alternatives, and those are answerhood conditions that HPCs cannot fulfill.

According to the discussion above, HPCs are conditionals spelling out the antecedent. It is clear that the sentence-focus is the antecedent, since this is the only spelled out constituent (we know from the ellipsis literature that for a sentence to be grammatical focused material needs to be spelled out). There is certainly a difference between English and Spanish. We have seen above that in English, unless there is an overt focus adverb scoping and associating with the antecedent proposition signaling the new sentence-focus, it is not grammatical to utter the antecedent of a conditional alone. However, as we have seen in

[41] It remains open whether the semantics of a different focus adverb would also deliver the same results. Optatives, we have observed, are also possible with *at least*. It seems that a semantics for *at least* along the lines of the semantics proposed for *only* in Beaver and Clark (2008) would state that utterances containing *at least* presuppose that the strongest sufficient alternative is at least as strong as the prejacent, whereas the descriptive meaning would state that there might be other sufficient alternatives stronger than the prejacent. Such an account would deliver the same results seen above with respect to *only* regarding the predictions of which utterances are deviant. However, a complete account of the semantics of *at least* is out of the scope of this dissertation.

the case of HPCs, a shift of focus structure is possible in Spanish even in the absence of an overt focus adverb: just by being spelled out (silent consequent), the antecedent is signaled as the sentence-focus (the topic remains silent).

To summarize, I have argued that desirability in HPCs is derived in the same way as in optatives. Like optatives, HPCs are conditionals in which information structure is reversed. However, unlike optatives, HPCs do not need the presence of an overt focus adverb triggering scalarity, and yet we observe that there is scalarity involved in HPCs. This may be easily explained by arguing that there is a morphological difference between Spanish and English: while English requires the presence of an overt scalar adverb in the grammar, this is not the case in Spanish. The claim is that in Spanish such operator may remain silent. Indeed, the presence at LF of a silent 'only' has been proposed already in the literature.[42] In what follows I present an experiment supporting the claim that in Spanish *sólo* ('only') is preferred to be silent.

5.3.2 Spanish conditionals: Experiment

I have mentioned that some speakers accept *sólo* ('only') in the antecedent proposition of a conditional, but that this is dispreferred and often reported as archaic. However, no empirical evidence has been presented yet supporting these claims. In what follows I present the results from an experiment designed to test them.

5.3.2.1 Method

Eight scenarios were designed to test the status of an overt focus adverb *sólo* ('only') in the antecedent of a conditional to obtain optativity. The scenarios followed the pattern in (233).

(233) Le estás contando a Juan que el pasado fin se semana ibas a visitar a tu pareja a París pero al final los planes se fueron al traste.
'You are telling Juan that last weekend you had planned to visit your partner in Paris. However, in the end you couldn't'

Juan: ¿Cómo hubieras conseguido ir a París?
how would have gotten go.Inf to Paris
'How would you have made it to Paris?'

Tú: i. Si sólo los billetes de avión hubieran sido más baratos, hubiera podido ir a París
'If only the tickets had been cheaper, I could have made it'

[42] It has been proposed in the literature that scalar implicatures arise when a sentence contains a silent exhaustivity operator similar to *only* (Groenendijk and Stokhof, 1984; Fox, 2006; Chierchia et al., 2008)

ii. Si sólo los billetes de avión hubieran sido más baratos
'If only the tickets had been cheaper'

iii. Si los billetes de avión hubieran sido más baratos
'If the tickets had been cheaper'

The experiment served the purpose of comparing speakers' preferences regarding the Spanish conditionals and the presence/absence of *sólo* ('only') (233i-ii and 233iii) as well as the possibility of not having a consequent spelled out in Spanish conditionals (233i and 233ii-iii). We will compare the results to the case of English. In English, optatives require the presence of a focus adverb to express optativity, and when the focus adverb is present (scoping over and associating with the antecedent proposition) the consequent can remain silent.

Materials

Eight scenarios like (233) were tested in a written acceptability judgment experiment (all experimental items are in Appendix Z). Every scenario spelled out one of the participant's desires, and was followed by a dialogue. The dialogue was formed by a question and three possible (different) answers given by the desire holder. The possible responses were conditionals which only differed with respect to the presence/absence of *sólo* ('only'), and the presence/absence of a consequent. Each one of the the possible answers was followed by a five-point scale (one being the worst rate and 5 being the best). The scenarios were designed to make clear that the (implicit) consequent in the conditionals below was desired. The set up of the context and the question preceding the utterance of the conditional ensured that this was the only interpretation. As in English, Spanish *how to* questions have a prominent mention-some reading, which could only be prevented in very elaborate scenarios, different from those found in the experimental items. These controls were meant to ensure that the three conditionals were interpreted in a similar manner in the relevant sense. The experimental items were combined with sixteen other items (fillers) of various forms.

Participants and procedures

Twenty-one students from the Universidad Complutense de Madrid completed a written acceptability judgment questionnaire. They read instructions indicating that that they were to rate the acceptability of the sentences on the questionnaire on a five-point scale. They were told they were to rate the sentence as "1" if the sentence was not at all something they would say in Spanish. They were to indicate that the sentence is a "3" if the sentence is one you would probably not say and one you would be surprised or slightly confused if you heard a Spanish speaker saying it. Finally, a 5 would be given to a sentence they could imagine themselves or another Spanish speaker saying without noticing anything odd about it. In addition, participants were asked to include any comments they might have

after every item. In (234) we can see how the experimental items were presented (you can see the translation of (234) above in (233)).

(234) Le estás contando a Juan que el pasado fin se semana ibas a visitar a tu pareja a París pero al final los planes se fueron al traste.

JUAN: ¿Cómo hubieras conseguido ir a París?

TÚ:

i. Si sólo los billetes de avión hubieran sido más baratos, hubiera podido ir a París

1 2 3 4 5

Horrible **Perfecto**

Comentarios:

ii. Si sólo los billetes de avión hubieran sido más baratos

1 2 3 4 5

Horrible **Perfecto**

Comentarios:

iii. Si los billetes de avión hubieran sido más baratos

1 2 3 4 5

Horrible **Perfecto**

Comentarios:

5.3.2.2 Results and discussion

The mean ratings appear in Table 5.2.

Table 5.2. Mean Acceptability ratings (1 = unacceptable, 5 = acceptable)

Condition	Rating	Stand. Dev.
Si sólo α, β	3.45	0.77
Si sólo α	2.55	0.74
Si α	3.44	1.05

The mean ratings make it clear that participants rated similarly conditionals with *sólo* and a consequent, and conditionals without *sólo* and without a consequent. However, conditionals with *sólo* in the antecedent and no consequent have a worse rating. A one-way ANOVA by subject and object shows significant differences ($F_1(2,60) = 7.34,\ p < 0.01$

and $F_2(2,21) = 11.10,\ p < 0.001$). Paired t-tests were performed and they show a significant difference between *Si sólo* α and the other two patterns. The results of the paired-t-test between *Si sólo*α, β and *Si sólo* α were $t(20) = 5.28,\ p < 0.0001$, by subject, and $t(7) = 7.18,\ p < 0.001$ by item, whereas the results of the paired t-tests between *Si* α and *Si sólo* α were $t(20) = -6.37,\ p < 0.00001$ by subject and $t(7) = -4.98,\ p < 0.01$ by item. Paired t-tests did now show any difference between *Si sólo* α, β and *Si sólo* α, $t(20) = 0.19,\ p = 0.84$ by subject and $t(7) = 0.37,\ p = 0.72$ by item.

Looking at the difference in the mean of acceptability rating we can see that none of the options are particularly liked by speakers. The rate for *Si sólo* α, β and *Si* α, even though are rated significantly better than *Si sólo* α is only 3.45. According to the instructions given to speakers, this means that participants rated these options as slightly better than sentences that they "would probably not say" and that they "would be surprised or slightly confused if you heard a Spanish speaker saying it." On the other hand, the *Si sólo* α option is rated worse than that (mean of 2.55). Comments from participants are very illuminating regarding these scores. In general, participants left many comments regarding these items, and a general comment was that they did not like the presence of *sólo* in the antecedent. Some participants indicated that it sounded archaic. The second general comment was that they did not like the absence of the consequent (they refer to this as *falta la continuación*, 'it lacks the continuation'). On other occasions they indicate that they would write responses lacking the consequent ending with ellipsis dots. This indicates that speakers accept conditionals without consequents when intonation is suspended thus indicating that an "obvious" consequent follows and that it has been previously mentioned (the consequent is indicated in the question preceding the possible responses). These comments provide us with an explanation for the ratings. The problem with *Si sólo* α, β is the presence of *sólo* ('only') in the antecedent. However, this option has the consequent spelled out and that is good. The problem with *Si* α is that it has no consequent spelled out. Both options have something good and something bad. However, the most dispreferred option, *Si sólo* α, has everything wrong: it has *sólo* in the antecedent and it is lacking the consequent, thus it is not surprising that it is the least preferred. Once participants completed the questionnaire, they were asked directly about optatives. They indicated that besides not liking the presence of a focus adverb in the antecedent, they could indicate that the consequent is desired just by varying the intonation when uttering the conditional (with or without consequent, and certainly without *sólo*).

The picture arising from the results in this experiment is very different from that in English. In Spanish, *sólo* is not possible in the antecedent proposition, and also consequents cannot remain silent. The only way consequents can remain silent is if intonation is suspended indicating that the obvious consequent follows. However, in English conditionals the consequent can remain silent (without continuation rise intonation) as long as there is a

focus adverb scoping over and associating with the antecedent proposition. Spanish shows that optativity (the desirability of the consequent) is not obligatorily indicated across languages by the presence of an (overt) adverb in the antecedent. A summary is included in Table 5.3.

Table 5.3. Contrast between English and Spanish

	Conditional without consequent and with 'only'	Conditional without consequent and without 'only'	Conditional with focus adverb in antecedent	Conditionals as optatives
English	√	X	√	√
Spanish	X	X	X	√

5.3.3 Whose desires?

The major difference between optatives and HPCs may be the fact that optatives always express the speaker's desires, while HPCs do not:

(235) a. If only I were taller
b. If only you were taller
c. If only they were taller

(236) a. Haberla invitado a la fiesta
have.Inf-cl.Acc-Fem inveted to the party
b. Haber salido antes
have.Inf left earlier

All the optatives in (235) express the speaker's desires for circumstances in which the antecedent proposition is true. However, in HPCs, whose desires are at stake is contextually determined, (236). We saw in (229) that the desires can be understood to be those of the addressee, but HPCs can also refer to the speaker's desires. Let us illustrate this with the example in (236a) (we saw this scenario in chaper 2).

(237) You and I are preparing the appetizers for a party tonight. We are talking about María, who you have a crush on:
You: Yesterday I met María in the library.
Me: Haber-la invitado a la fiesta. A mí no me hubiera importado.
have.Aux.Inf-cl.Acc invited to the party I wouldn't have minded.

If you do not have any (known) particular interest on María's coming to the party (you barely know her), you would understand that I want María to come. Indeed, someone listening to the dialogue in (237), without any priviledged information regarding who has

a crush on whom, would infer that at least one of two things is true: either you want María to come to the party, or I want María to come myself (maybe both!). It is clear in (237) that María's coming to the party is desired. Whose desires are at stake is contextually provided. An accidental witness would need further information to clarify what the actual situation regarding desires is.

One possibility to explain the differences between English and Spanish is to appeal to a conventionalization. It may be that optatives in English conventionally encode that the desire holder is the speaker, whereas such convention does not hold in HPCs. However, below I lay out alternative explanations. I argue that the desire holder is the one setting up the IQuD. In optatives the participant setting up the IQuD is the same participant uttering the optative. However, in the case of HPCs, it can be either the speaker or the addressee. I will start by studying optatives, and then I turn to HPCs.

Recall that optatives are not answers to any spelled out question.

(238) A: How would you have managed to play in the NBA?
B: If only I had been taller

The dialogue above sounds terrible to English speakers. Assuming Roberts' (1996) theory of discourse, questions are the obvious counterpart of an inquiry, which is the main goal of the discourse. The discourse goal may be explicit (when the question is uttered) but explicitness is not a requirement. Questions can also be implicit. As we saw above, in Roberts's system utterances are either "set up moves" (generally questions), or "pay off moves" (answers to questions). Optatives are not a good answer to an explicit question and are not questions themselves. The proposal I argue for is that optatives do not answer the immediate question under discussion. Rather, optatives introduce a new discourse goal, and provide an answer.

Optatives are not the only utterances that change the discourse goal (introduce a new IQuD). There are other utterances that change the discourse goal. An example is provided by utterances preceded by *by the way*. *By the way* always precedes a proposition that does not answer the IQuD at the point of utterance. Indeed, no utterance preceded by *by the way* is a good answer to anything:

(239) A: Are you coming to the party?
B: By the way you have not told me yet whether Jim is going.

B's response to A's question is not an answer. Rather, B is introducing a new conversation topic. The same is observed in the examples below:

(240) A: I'm so tired. This is such a long week!
B: By the way, tomorrow there is a party at John's

(241) A: Yesterday I went to see an old movie at the cinema. It was from the eighties. Gosh! Time has passed.

B: By the way, do you still have that blue blazer with huge shoulder pads? It would come handy for my Halloween costume.

Like utterances preceded by *by the way*, optatives are not good answers to any question. Like 'by the way', optatives set up a new IQuD. This is a welcome observation because it helps us understand why optatives are always speaker oriented. We saw above that desirability in optatives is derived from the IQuD, as an implicature of the (implicit) immediate discourse goal addressed by optatives Given the IQuD in optatives.

(242) a. How would I get to the supermarket?
b. How would you play in the NBA?
c. Howe would they make it to the party?

The questions in (242) imply that the speaker (the questioner) desires circumstances in which the embedded proposition is true (it may also be contextually inferred that other participants share the desire). Since in optatives the speaker is also the questioner (the utterance of the optatives sets up the question), optatives always encode the speaker's desires.

HPCs, on the other hand, are always replies, and can also be responses to overt questions (unlike optatives). If the desires are those of the addressee, many times the required *cue* licensing the HPC turns out to be a complaint. A complaint identifies a desire and allows for the accommodation of a question regarding how that desire could have been brought about. In face of a complaint (or apology), an HPC is going to refer to the addressee's desires:

(243) A: I'm sorry I am late.
B: [Understood: A would have liked to arrive on time.
IQuD: A is asking "How would I have arrived on time?"]
Haber salido antes
have.Inf left earlier

A similar example is in (244), in which it is clear that the only desire holder is the addressee.

(244) A and B are candidates competing for the same position. Only one of them will get it, and the competition has become sour. They need to submit the application for the position before 3:00 pm in an office downtown. A is late. When he arrives to the office, B is leaving and the office is just closing.
A: ¡Oh Dios! No puedo entregar mi solicitud
'Oh my God! I can't submit my application'
B: [Understood: A would have liked to file his application.
IQuD: A is asking "How would I have managed to submit my application?"]

¡Jajajaja! Haber llegado antes. Ahora nada impedirá que

(evil laugh) have.Inf arrived earlier now nothing will prevent that

me den la plaza

cl.2.sg.Dat give.3.pl the position

'(evil laugh) Had you arrived earlier... Now nothing will prevent them from giving me the position'

When there is no previous apology or complaint and the HPC appears 'out of the blue', HPCs themselves introduce a new immediate discourse goal, like optatives. The desires are then often interpreted as the speaker's (who is introducing the goal). To see this consider again the party scenario in (237), but assume that that there is no previous background regarding anyone having a crush on anyone. In this version, the addressee of the HPC would understand that the speaker would have liked María to attend the party.[43] The HPC introduces a new goal (still related to María, but regarding something else), and provides an answer. Just like optatives.

Certainly HPCs are easier to "understand" (and more acceptable) when the discourse goal is already established, as it is the case in optatives. When it is clear from the discourse what is the desired consequent of an optative or HPC, the addressee needs to make less effort to understand the utterance of an optative or HPC. When the optative is uttered out of the blue, it is more complicated to understand what are the desired consequences brought about by the truth of the antecedent. However, it helps if the antecedent is such that it is easy to foresee a welcome consequence arising from it being true. Let us exaine the contrasts in (245) and (246).

(245) a. If only I were taller

b. If only I died

(246) (There is no knowledge in the context regarding anyone having a crush on anyone)

A: I just saw María at the library

B: Haberla invitado a la fiesta

have.Inf-cl.ACC invited to the party

[43]Imagine that I know that you have a crush on María. And yet I utter the HPC out of the blue as in this revised version of (237). In that case, I am also expressing the desire that María come to the party. Probably I desire her to come because I want you to be happy, not because I want her present per se. But, whatever the reason, I express the desire for her to come. This is a prediction of the hypothesis argued for here: the desire holder is the questioner. If the IQuD is introduced out of the blue by the utterer of the HPC, she is the desire holder. This is not the case when the previous utterance is a complaint and it can be understood that the complainer is wondering how things may have been different. In that case the complainer is the one setting up the question, and thus the desire holder. If the participant uttering the HPC shares those desires, that information may be contextually provided, but it is not derived from the utterance *per se*.

B': Haberle dado una bofetada

have.Inf-cl.DAT given a slap in the face

With respect to (245a), being taller is commonly assumed to lead to good things. In contrast, it is in general harder to see what desired consequences are brought about by dying, (245b). Similarly, it is easier to imagine good (desired) things brought about by inviting somebody to a party than by slapping them.

In sum, English optatives and Spanish HPCs are similar in that they carry the implicature that the participant who set up the IQuD addressed in each case desires the circumstances described in the consequent of the conditional. The constructions differ with respect to how the IQuD is identified. Optatives change the immediate discourse goal and introduce their own immediate goal. Since the speaker of the optative is always the one introducing the new discourse goal, the desires in optatives always refer to the speaker. HPCs differ from optatives: they require *cues*. The *cues* give rise to (accommodated) IQuDs, and the desires in HPCs refer to whoever is understood to be the person setting up the discourse goal. In the (rare) occasions in which HPCs are understood as also introducing an IQuD, the desires refer to the speaker making them parallel to optatives for those contexts.

This proposal regarding differences between HPCs and optatives does, in the end, rely on a convention. In the case of optatives, it is conventionalized that the IQuD is understood to be set up by the participant uttering the optative. In the case of HPCs, context determines who sets up the IQuD. This difference translates into a difference regarding whose desires are at stake. One could wonder how this difference is reflected in the grammar. We have characterized the differences between the two constructions at the discourse level. But, what is the difference between the two constructions at the level of grammar? How are the discourse constraints encoded in grammar? I am only able to offer a speculative comment here, as a full answer would require further research. It may be the case that the differences arise because of differences in the discourse conditions associated with the structures in each language. In the case of English, the structure (optatives) is associated with an IQuD set up by the speaker, while in the case of Spanish, the structure (HPCs) is associated with an IQuD set up by any participant. This would make optatives and HPCs an example of structures associated with discourse conditions (much like I will suggest for the case of inversion).

5.4 Conclusion

In this chapter I discussed English optatives in comparison with Spanish HPCs. English optatives share crucial features with Spanish HPCs, including desirability. In this chapter I provided an analysis of English opatives as conditionals that only spell out the antecedent. I made the further suggestion that the consequent proposition is represented by a variable

ranging over propositions that is abstracted over. The result is that English optatives are taken to denote properties of propositions, thus explaining many of their distributional characteristics. In my discussion of English optatives I have addressed proposals made earlier in the literature, notably Rifkin (2000).

I provided an account of the desirability intuition in English optatives in terms of the interaction between the meaning of the focus adverb present in the optative and the IQuD addressed by the optative. I discussed the effect of the focus adverb on discourse structure (it reverses topicality) and argued that the focus adverb appeals to a scale of alternatives that is congruent only with 'how to' questions in the discourse. How-to questions are most naturally interpreted as questions asking for the best means to achieve a desired goal. The fact that optatives are taken to provide answers to how-to questions explains why the consequent of the optative is understood to be desired. Desirability arises as a discourse inference from the assumption regarding what discourse goal is being addressed. I established a comparison between English optatives and HPCs and showed how the account of desirability in English optatives can carry over to the case of HPCs. I noted similarities and differences between the two cases. The case of English optatives was important for developing an analysis of desirability in HPCs because English optatives make overt some features that are implicit in the Spanish case, and thus provide a useful starting point for understanding HPCs. In both constructions, the meaning of desirability arises from the interaction between the scales associated with a focus adverb and constraints arising from the discourse. So even though there is no lexical item responsible for encoding desirability, desirability still arises as a pragmatic meaning linked to the discourse.

CHAPTER 6
INVERSION

Let me start this chapter by summarizing what we have learnt about HPCs so far. I have argued that HPCs are conditionals in which only the antecedent is spelled out whereas the consequent obligatorily remains silent. Because HPCs do not spell out a consequent, they can only be uttered when the context of utterance is rich enough that the consequent can be recovered: HPCs need a cue. The easier way to illustrate HPCs is when the *cue* is spoken, and thus HPCs are more easily characterized as replies to previous utterances. I have also provided evidence supporting the claim that when HPC(α) is uttered, the consequences of α being true have to be desired, otherwise HPCs are not licensed. This already poses a constraint on what proposition can be the antecedent of the HPC, i.e. α: the conditional statement has to be true (HPC(α) is judged as true if in the most similar worlds to the actual world in which α is true, the (implicit) consequent, β, is true), and the (implicit) consequent has to be desired. In chapter 5 we also saw that the proposition spelled out in HPCs must obey further constraints. We saw that even though there is no overt scalar operator in HPCs, as in optatives, there is scalarity involved. When uttering HPC(α), α is not just any proposition. As we saw in the previous chapter, α is the strongest sufficient proposition in a scale based on plausibility and deviance that would have brought about the desired consequences, i.e. the strongest sufficient alternative in the scale. In this chapter I will refer sometimes to the proposition α in HPC(α) as the (uttered) alternative, the chosen alternative or the spelled-out alternative, because in this chapter I am going to be concerned with yet another constraint that propositions embedded in HPCs have to obey. In HPC(α), α is not only the strongest sufficient alternative (proposition) that makes the most informative statement, α also has to have been *entertained* in the ordinary sense of the word.

In chapter 2 I indicated that HPCs are rude. I pointed out that HPCs import a sense of *obviousnes* that makes it impossible to utter them in just any contextual situation. The sense of obviousness in HPCs could be paraphrased with *duh!* Indeed, because of this sense of obviousness, HPCs are stereotypically used as *reproaches*. In this chapter I explain where this sense of obviousness comes from and how reproaches work. Some examples:

(247) A: Why don't you stay home today? We could watch the game together.
B: Sorry, but I'd rather go out tonight and watch the game in a bar.
Three hours later, B comes back home.

B: I went to a bar and got robbed. Someone stole my wallet.

A: Haberte quedado en casa conmigo **[HPC]**

have.Inf-cl.2. stayed at home with me

'Duh!, had you stayed home...!'

(248) A: I'm sorry I'm late.

B: Haber salido antes **[HPC]**

have.Inf left earlier

'Duh! Had you left earlier...!'

In this chapter I first argue that HPC(α) conveys that the antecedent proposition, α (i.e. *you stay at home with me* and *you leave earlier* in (247) and (248) respectively[1]) has already been *entertained* by the discourse participants in the ordinary sense of the word. I use the term *entertain* for now, until I introduce the theoretical framework in §6.1.1. As can be seen by looking at (247) and (248), I take it that the proposition is considered to be *entertained* in two different circumstances: because it has been previously mentioned in discourse (in (247) A's first intervention suggests that B should stay home that night), or because it is part of background knowledge (in (248), B's utterance invokes the background knowledge that one usually arrives earlier to where one is going if one leaves earlier too, thus the proposition *you leave earlier* is taken to be entertained). These are explained carefully in this chapter. I start by presenting and explaining the easier cases, (247), and then I present and explain more challenging cases like (248).

I cash out the notion of what it means to say that a proposition has been 'entertained' by appealing to Schwarzschild's (1999) notion of GIVEN. I explore the discourse licensing conditions of HPCs, as well as of Spanish regular conditionals in which there is subject-auxiliary inversion in the antecedent (I will refer to conditional antecedents in which there is such inversion as inverted antecedents), and conclude that they are only felicitous when the antecedent proposition is GIVEN. Since inversion is the only difference between regular conditionals vs. HPCs and conditionals with inverted antecedents, I argue that syntactic inversion in the conditional antecedent in Spanish is what is responsible for conveying the meaning that the antecedent proposition is GIVEN. *Obviousness* in HPCs is analyzed as a consequence of GIVENNESS: HPC(α) convey that the addressee knew of the proposition α that would have led to the desired circumstances.

GIVENNESS proves to have further pragmatic effects depending on the proposition in the antecedent. If the proposition in the antecedent was mentioned in the previous discourse

[1] As in the rest of the dissertation, when identifying conditional propositions I abstract away from tense and aspect.

as a way of bringing about a desired objective at a time when it was still possible to do so, or if background knowledge has it that it was the normal/obvious way of action to have chosen at the time to bring about the desired circumstances, the utterance of the HPC conveys that there was a failure. Thus, HPCs can be used as *reproaches*.

The link between form and function can be arbitrary (Prince, 1996) and need not be the same across languages. However, it is not surprising that noncanonical orders encode extra information regarding the information status of the constituents. This is pointed out in Ellen Prince's work and in work by her students (see Prince 1992, Prince 1996, Birner and Ward 1998, Ward and Birner 2004, Birner 2006 a.o.). Prince noted that non-canonical orders can be used to signal information regarding status in discourse. Prince (1992) uses the concept of *discourse old*[2] to describe the status of entities realized as NPs that have been mentioned in the discourse. Ward and Birner (1995) point out that one can extend the concept to other objects. Prince's proposal includes other characterizations of discourse status. Information is *hearer old* when it is assumed to be known by the hearer, even if it is not discourse old, i.e. it has not been mentioned. Of course constituents are hearer old once they have been mentioned (by then they are discourse old), but they can also be *hearer old* while being *discourse new*, as long as they are foregrounded (and unused). Schwarzschild's (1999) notion of GIVEN, which I will appeal to to characterize what it means to be entertained, is related to the notion of hearer old, so the current proposal is very much in the spirit of Prince's observations regarding the discourse effects of non-canonical orders. From the point of view of my current objective, there are some advantages to using Schwarzschild's (1999)'s GIVENNESS. One is the level of explicitness found in Schwarzschild's work, which makes it very easy to adapt it to the current data. Appealing to Prince's notion would require developing additional details to handle the puzzle presented by HPCs and make specific predictions. A second advantage is that Schwarzschild's notion of GIVENNESS clearly dissociates GIVENNESS from knowledge. The notion of hearer old is used for information that is assumed to be known by the hearer. As we will see, the licensing of inversion in Spanish conditionals does not depend on hearer's knowledge (and neither does it depend on a shared common ground). In principle it seems intuitively right that Prince's original framework could be extended to deal with the data presented by HPCs, but working out the exact details is beyond the scope of this dissertation.

The take home message from the work of Prince and her students is that non-canonical word order marks the information status of constituents. If languages commonly use non-canonical word orders to mark the information status of a constituent, and this is what we observe in inversion, one would hope to find the same link in other languages. In this chapter I argue that this link is indeed also found in English.

---

[2] As far as I am aware of, the first author who used this concept was Karttunen (1976).

In §6.1 I explore the discourse-licensing conditions of HPCs and regular conditionals with inverted antecedents and argue that in order for them to be felicitous it is necessary that the antecedent proposition be GIVEN in Schwarzschild's (1999) terms. In §6.1.1 I introduce Schwarzschild's theory, and in §6.1.2 I argue that Schwarzschild's definition of GIVENNESS is what is relevant in HPCs and in regular conditionals with inverted antecedents. In §6.2.1 I explore further consequences of inversion in conditional antecedents and in §6.2.2 I present data from an experiment supporting the claims made before. In §6.3 I analyze the case of English conditional inversion, and I claim that it is similar to the phenomenon observed in Spanish. The section on English includes a discussion of a previous proposal regarding inversion in English conditionals (Iatridou and Embick, 1994).

6.1 Inversion and HPCs

In this section I provide an approximation to the licensing conditions of HPCs regarding inversion before introducing the formal framework in §6.1.1. I argue that for HPC(α) to be licensed it is a necessary condition that α have been entertained before the utterance. HPCs are licensed only if they meet this constraint together with all the constraints regarding desirability that we reviewed before in chapter 5. Furthermore, I argue that inversion in conditional antecedents in general (not only in HPCs) carries the presuppositional meaning that the antecedent proposition has been entertained.[3]

Below I present examples to illustrate a series of properties of HPCs that will be relevant when discussing their licensing conditions. The first example illustrates that HPCs are not licensed if the antecedent has not been previously entertained. The second example illustrates that entertaining the antecedent leads to acceptability (provided that the other conditions are met). There is a concern that the licensing of HPCs requires not only that the antecedent be entertained but also that the link between antecedent and consequent be established in the previous discourse (a stronger condition). The next set of examples illustrates that this is not the case and that HPCs can be felicitous even in contexts in which the link was not previously established. Finally, I also present an example that illustrates that HPCs follow expected behavior where propositions that are actually false are accepted as information in a conversational context.

Let us start by illustrating the relevance of the proposition spelled-out in the HPC having been entertained. The scenario in (249) shows the difference between inverted conditionals and regular conditionals with respect to the need for α to have been previously entertained in order for the utterance of HPC(α) to be felicitous.

[3]I will argue that inversion in conditional antecedents is not equal to inversion in questions. Thus the meaning attributed to inversion in conditionals is not necessarily found in questions.

(249) A message in your computer pops up. Part of the system is crashing and you have to do something or it will be fatal. You don't know anything about computers, you do nothing, and the computer crashes. You are now telling the story to your friend Mr. Jobs (head of Apple Computers).

You: Oh my! My computer is dead! What am I going to do?

Mr. Jobs (a): # Hubieras introducido el comando $111$$3998 en el sistema,

had input the command in the system

tu ordenador no habría muerto

your computer wouldn't have died

'Had you input the command $111$$3998 in the system, your computer would have not crashed'

Mr. Jobs (b): # Haber introducido el comando $111$$3998 en el sistema

have.Inf input the command in the system

'Had you input the command $111$$3998 in the system...'

Mr. Jobs (c): Si hubieras introducido el comando $111$$3998 en el sistema,

if had.2.sg input the command in the system,

tu ordenador no hubiera muerto

your computer neg had died

'If you had introduced the command $111$$3998 in the system, your computer would have not crashed'

Mr. Jobs' utterances in (249) illustrate that a conditional without inversion is fine even though the addressee did not know about the alternative expressed in the antecedent (*you input the command $111$$3998 in the system*), nor had it been mentioned earlier (Mr. Jobs (c)). In these circumstances, the options with inversion are not felicitous (Mr. Jobs (a) and Mr. Jobs (b) in (249)). The contrast between (249) and (250) shows that if α has been mentioned (regardless of whether it was 'doable'), HPC(α) can become felicitious (250):

(250) A message in your computer pops up. Part of the system is crashing and you have to do something or it will be fatal. You don't know anything about computers, you do nothing, and the computer crashes. You are now telling the story to your friend Mr. Jobs.

You: The computer crashed and I did not manage to avoid it.

Mr. Jobs: Did you get any message on the screen before hand?

You: There was a warning telling me to do something, but I did not quite know what.

Mr. Jobs: Probably the security program wanted you to insert the security code to make sure you were not a hacker.

You: I did not know there was a security code

Mr. Jobs: Yeah! we introduced it as a security measure. The one for your computer is $111$$3998

You: Oh my! What can I do?

Mr. Jobs: Nada... Haber introducido el comando $111$$3998 en el

nothing have.Inf input the command in the

sistema cuando te lo pidió

system when cl.2.Dat cl.3.ACC asked

'Norhing..., Had you input the command $111$$3998 in the system...'

The HPC in Mr. Jobs' last utterance is felicitous. The addressee did not know anything about entering the security code when the warning popped-up, but it has been discursively mentioned before the HPC is uttered (one of Mr. Jobs' previous utterance already mentions the possibility of entering the command $111$$3998). Thus the utterance of the HPC is felicitous.[4] A similar point is made by the example in (251).

(251) **A:** El médico me ha diagnosticado osteoporosis. Y me ha dicho que tomar vitamina D me hubiera ayudado a prevernirla. Ahora no puedo hacer nada.
'The doctor has diagnosed me with osteoporosis. H has told me that vitamin D would have helped to prevent it. Now there is nothing we can do.'

B: Mala suerte, haber tomado vitamina D durante los últimos años **[HPC]**

bad luck, have.Inf taken vitamin D for the last years
'Too bad, had you taken vitamin D during the last years...'

In the context provided by A's utterance, the HPC is appropriate. If A had not mentioned the possibility of taking vitamin D as a way of avoiding osteoporosis, the HPC would have been odd.

The previous examples involve cases in which the link between the antecedent proposition and the implicit desired consequent in the HPC is already established in discourse. However, as the examples below illustrate, this is not necessarily the case. It is possible for an HPC to be felicitous if the antecedent is *given* even if the previous discourse does not

[4]The HPC in (250) also fulfills the other constraints posed in the proposition spelled out in the HPC. The proposition spelled out in the HPC in (250) is the strongest/sufficient alternative (in the plausibility/deviance scale) that would bring about the (desired) consequences.

establish a link between the antecedent and consequent. To see this, consider the example below:

(252) John: My computer comes with three special codes that I can input: $gtha$fy, gth3tsg, $111$$3998. But I have no idea what they are for. The other day, my computer crashed and I did not know how to reboot it.

Peter: Haber introducido el código $111$$3998

have.Inf input the code

'Had you input the command $111$$3998'

In the example above, the HPC is felicitous. The alternative spelled out in the antecedent has been mentioned in the the previous discourse without making any link to the desired consequence. However, in the context provided above, it is clear that the claim Peter is making is that inputting code $111$$3998 will lead to the desired consequence of rebooting the computer. Peter's utterance provides this information. The link is not something that has to have been previously established.

Below in (253) is another example illustrating the fact that the link between antecedent and consequent need not be established before the utterance of the HPC. This case is interesting because α in HPC(α) was introduced in the discourse linked to information different from the information α is linked to in the HPC. So even though the discourse supports a link between α and some different information, α can show up again in the HPC linked the currently desired outcome. This provides further support for the claim that the link between the antecedent and consequent in the HPC does not have to be established in the discourse leading to the utterance of the HPC.

(253) A: Why don't you stay home today? We could watch the game together.

B: Sorry, but I'd rather go out tonight and watch the game in a bar.

Three hours later, B comes back home.

B: I went to a bar and got robbed. Someone stole my wallet.

A: Haberte quedado en casa conmigo **[HPC]**

have.Inf-cl.2. stayed at home with me

A's utterance of the HPC above conveys that had the addressee stayed home (as recommended) he would not have been robbed. However, at the time B decided to go out it was not the case that staying at home was an alternative suggested in order to avoid being robbed. The alternative was brought up for independent reasons. The previously suggested alternative is recalled as a previously mentioned option (marked by inversion). The previous discourse is taken to indicate that B desires not to have been robbed. When uttering the HPC A, recalls that at the time B decided to leave there was a different possibility (staying

home). The conditional statement is certainly judged true (the most similar worlds to the actual world in which B stays home are worlds in which B does not get robbed), and the alternative is, as far as the speaker knows, the strongest sufficient alternative that would have been brought about the desired consequences (or else as strong as any other sufficient alternative. See discussion in chapter 5). The alternative of staying home is recalled to indicate that, had the addressee stayed home (as suggested), he would have avoided the robbery.

The example below illustrates that the utterances of HPCs follow standard patterns with respect to certain discourse expectations:

(254) Apple introduced a security code in 2009, $111$$3998, meant to be used when there is a fatal failure in the system. The code can be inserted when the system is about to shut down to prevent fatal failure. However, regular users do not know about this code. It is only explained in Computer Science classes. And we now witness the conversation between John, a terrible Computer Science student, and Thomas and Peter, owners of a café who know nothing about computers.

John: The other day they said in class that if you enter the code $111$$3998 in a Mac, the computer crashes.

Thomas: Don't tell me about computers crashing. My Mac crashed the other day. A window popped up on the screen requesting that I input a code or else the computer would crash. What the heck! Which code? I do not know anything about computers!

Peter: # Haber introducido el código $111$$3998

have.Inf input the code

'Had you inserted the code $111$$3998, ...'

In the example above the proposition in the HPC is GIVEN, and yet the HPC is infelicitous. This is because the HPC states that introducing the code $111$$3998 in the system prevents the computer from crashing (this is indeed the desired consequence). However, Peter's utterance is in conflict with what is taken to be the shared information at the time of utterance, i.e. that if you input the code $111$$3998 in a Mac computer, it will crash. Since John's utterance has been accepted, the content of the utterance is considered as information that is believed throughout the discourse regardless of the facts in the actual world. In this context Peter's utterance is obviously false, because given the context it is not true that the antecedent is a sufficient condition for the desired consequent. Since the utterance is obviously false, it results in infelicity unless Peter's utterance is understood ironically. This would still be the case if Peter had taken classes in Computer Science and was aware of the falsity of John's claim. If he does not correct John when he makes the false claim, his utterance of the HPC is infelicitous even know he knows it is true that by

inputting the code \$111\$\$3998 one prevents Mac computers from crashing. By failing to correct John's claim, he behaves as if he accepted the truth of his utterance and is bound to that assumption.

6.1.1 Schwarzschild's GIVEN

My claim is that subject-auxiliary inversion in Spanish conditionals indicates that the antecedent proposition has already been entertained. This can be theoretically cashed out by appealing to the notion of GIVEN in Schwarzschild's 1999 terms. In what follows I briefly introduce Schwarzschild's proposal, and, in §6.1.2 I show that the discourse conditions in which inverted conditionals and HPCs are licensed are such that the antecedent proposition is GIVEN.

The intuition behind Schwarzschild's (1999) proposal is that an utterance is GIVEN information if it is already entailed by the discourse. Schwarzschild's (1999) proposal is special in that it does not require that something be known or true. Just that there be a 'piece of language' that (with the appropriate type shifting) entails it:

(255) An utterance is *given* iff it is entailed by prior discourse

(Schwarzschild, 1999, pg. 147, def. (14))

Schwarzschild's provides the informal definition of GIVEN in (256).

(256) Definition of GIVEN:
An utterance U counts as GIVEN iff it has a salient antecedent A and
   a. if U is type e, then A and U corefer;
   b. otherwise: modulo $\exists$-type shifting, A entails the Existential F-closure of U

When not dealing with the referential case, (256a), GIVEN is based on the entailment relation, which holds between propositions. In order to apply the term GIVEN to expressions of any type, Schwarzschild makes use of two types of existential quantification. The first existential quantification is a type shifter, which applies in order to obtain a semantic object of type t. Schwarzschild defines existential type shifting as below:

(257) Existential Type Shift: ExClo
   a. If $\omega \in D_t$, then $\text{ExClo}(\omega) = \omega$
   b. For any conjoinable type $\langle a,b \rangle$:
   If $\omega \in D_{\langle a,b \rangle}$, then $\text{ExClo}(\omega) = \lambda w \exists u \in D_a[ExClo(\omega(u))(w)]$
   c. t is a conjoinable type
   If b is a conjoinable type, then so is $\langle a,b \rangle$, for any type a

(Schwarzschild, 1999, def. (26))

The definition of ExClo above is recursive. We apply ExClo as many times as necessary until we obtain an expression of type t. This is illustrated in the example in (258).

(258) Let α be an expression of type $\langle e, \langle e, t\rangle\rangle$, then $\text{ExClo}(\alpha) = \lambda w \exists u \in \text{D}_e \exists v \in D_e[(\alpha(u)(v))(w)]$

The second existential quantification binds F(ocus)-variables.[5] The definition of F-Closure is given below.

(259) *Existential F-Closure of* $U =_{df}$ the result of replacing F-marked phrases in U with variables and existentially closing the result, modulo existential type shifting.

(Schwarzschild, 1999, pg. 150, def. (23))

Let me illustrate the proposal with a simple example from Schwarzschild (1999).[6] The definition in (256) is meant to be used in conjunction with the requirement in (260).

(260) Non-F-marked constituents must be given.

(Schwarzschild, 1999, ex. (19))

Here is Schwarzschild's example.

(261) "In a discourse where *see John* has been used, *see* $[\text{MARY}]_{\text{F}}$ should count as GIVEN and hence the VP itself need not be F-marked. This works as follows:"

$\exists$-type shifting of [*see John*] yields:	$\exists y$[y see John]
Replacing F-marked part of *see* $[\text{MARY}]_{\text{F}}$ with variable:	[see X]
$\exists$-type shifting of [see X] yields:	$\exists y$[y see X]
$\exists$-binding F-variable gives:	$\exists \text{X}\ \exists y$[$y$ see X]
$\exists y$[y see John] ENTAILS	$\exists \text{X}\ \exists y$[$y$ see X]

(Schwarzschild, 1999, pg. 150)

The first instance of existential quantification in (261) is the type shifter that turns *see John* into a proposition so as to be able to establish an entailment relationship. The second instance of existential quantification, once the F-marked part of *see* $[\text{MARY}]_{\text{F}}$ is replaced with a variable, is the Existential F-closure defined in (259).

One thing to take into account is that Schwarzschild's theory is based on overt 'antecedents' to the GIVEN utterance. However, he himself points out that this is not the only way an utterance can be GIVEN:

---

[5] Schwarzshild provides additional machinery meant to deal with focus marking and problems that do not concern us here. I am going to keep things as simple as possible.

[6] The reader is referred to Schwarzschild (1999) for details on more complicated cases.

> "A note on the terms 'entailment' and 'antecedent' used in the definition. The intention here is some kind of contextual entailment, where certain backgrounded information is assumed. Also, in the examples discussed here the relevant antecedent will be overt, but this does not preclude the possibility that a speaker could insinuate an antecedent, provided the hearer can accommodate it. To paraphrase Halliday (1967, 204), the rules governing F marking depend on what the speaker presents as GIVEN."
>
> (Schwarzschild, 1999, pg. 151)

Schwarzschild's (1999) observation above is important, as we will see that in the case of HPCs it is often true that the relevant antecedent remains implicit (it is provided by context). GIVENNESS is often calculated with respect to antecedents that are not overt.

In the next section I argue that Schwarzschild's GIVENNESS is what is at stake in Spanish inverted conditionals (both HPCs and regular inverted conditionals).

6.1.2 HPCs, inverted conditionals and GIVENNESS

Having reviewed Schwarzschild's (1999) proposal, let us turn back to the case of HPCs. As we noted descriptively above, HPCs are felicitous only when the antecedent proposition has been entertained. I start by introducing the easier cases, those in which the proposition in the HPC is GIVEN because it is part of previous discourse. Here is such case:

(251) **A:** El médico me ha diagnosticado osteoporosis. Y me ha dicho que tomar vitamina D me hubiera ayudado a prevernirla. Ahora no puedo hacer nada.
'The doctor has diagnosed me with osteoporosis. He has told me that taking vitamin D would have helped to prevent it. Now there is nothing we can do.'

B: Mala suerte. Haber tomado vitamina D durante los últimos años **[HPC]**
bad luck have.Inf taken vitamin D for the last years
'Too bad. Had you taken vitamin D during the last years...'

The antecedent proposition of the HPC in (251) is *you take vitamin D*. The utterance of the antecedent is given, according to Schwarzschild's definition (256), because there is an antecedent (*tomar vitamina D*) that entails *haber tomado vitamina D* (type shifting and existential F-closure are trivial in this case).[7]

Schwarzschild's (1999) definition of GIVEN allows all discourse (and context) material to count towards GIVENNESS, independently of what has actually made its way into the common ground and is accepted by the participants in the conversation as true. To see the relevance of this consider (262).

[7]The HPC also obeys the constraints regarding desirability pointed out in previous chapters.

(262) A: ¿Dónde estaba María a la hora de comer?

where was María at the hour of lunch
'Where was María at lunch time?'

B: Creo que estaba en la reunión de altos ejecutivos.

think.1.sg that was in the meeting of high executives
'I think she was at the executives' meeting'

C: Pufff! ¿María en la reunión de ejecutivos? No sé... Hubiera estado

María in the meeting of executives neg know.1.sg had been

en la reunión de ejecutivos, habrían mandado comprar más

in the meeting of executives would have ordered buy more

sandwiches.

sandwiches
'Pufff, María at the executives' meeting? I don't know..., had she been at the executive's meeting, they would have ordered many more sandwiches'

B: Creo que hoy pidieron pizzas, y pidieron más pizzas

think.1.sg that today ordered.3.pl pizzas and ordered.3.pl more pizzas

que de costumbre..., pero no sé

than of usual but neg know.1.sg
'I believe they ordered pizzas today, and I think today they ordered more pizzas than usual'

At the end of the dialogue above, it is not clear whether María is at the meeting or not. It is not part of the common ground either that María was at the meeting, nor that María was not at the meeting. *That María was (not) at the meeting* is not *given* if by *given* we mean 'accepted as true'. However, it is GIVEN in Schwarzschild's terms. B's first utterance spells out *Maria is at the meeting*, which licenses inversion in the conditional uttered by C. Without B's utterance suggesting the possibility of María being at the meeting (imagine B suggests that María went home for lunch instead), the utterance of the inverted conditionals is not felicitous.[8] This shows that it is really important to capture GIVEN in

[8]The important point in this example is that inversion in conditionals does not indicate that the antecedent proposition is known to be false. This cannot be illustrated with HPCs because in HPCs we know that the desired consequences are not true in the actual world, and thus counterfactuality is not cancelable (since the consequent is not true, the sufficient conditions that bring about the consequent are not true in the actual world either).

terms of Schwarzschild's proposal, and not in terms of what is shared knowledge in the common ground.

Let's take a version of the case above regarding the computer-crashing incident illustrated earlier.

(263) A message pops up in your computer. Part of the system is crashing and you have to do something or it will be fatal. You don't know anything about computers, you do nothing, and the computer crashes. You are now telling the story to your friend Mr. Jobs.

A: There was a message in my computer, but I did not know what to do and the computer collapsed.

Mr. Jobs: En esos casos debes introducir el código \$111\$\$3998

in those cases have input the code \$111\$\$3998

'In those cases you have to input the code \$111\$\$3998'

A: Oh man, I did not know that..., what can I do now?

Mr. Jobs: Nada, haber introducido el código \$111\$\$3998 cuando tenías

nothing have.Inf input the code when had.2.sg

la oportunidad.

the chance

Mr. Jobs': Nada, hubieras introducido el código \$111\$\$3998 cuando tenías

nothing had.2.sg input the code when had.2.sg

la oportunidad...

the chance

In the context above, inversion in conditionals (both in the case of regular inverted conditionals and HPCs) demands that the proposition in the antecedent be GIVEN. Without Mr Jobs' first utterance (imagine he tells you to call a technician instead), the inverted conditional is not felicitous.[9]

Let us now turn to the more complicated cases, those involving background knowledge. Schwarzschild's (1999) concept of GIVENNESS is also meant to apply when there is no overt antecedent and the antecedent is supplied by context. GIVENNESS arising in this way is also relevant in the case of HPCs and inverted conditionals.

[9]In a situation in which inversion is not licensed, a regular conditional with a non-inverted antecedent is fine: *Si hubieras introducido el código \$111\$\$3998 tu computdaor no habría muerto* ('If you had input the code \$111\$\$3998, your computer would not have died').

(264) A: I'm sorry I'm late.

B: Haber salido antes √

have.Inf left earlier

B': Hubieras salido antes, habrías llegado a tiempo √

have.2.sg.Subj left earlier would have arrived on time

'Had you left earlier, you would have arrived on time'

The HPC in (264B) (HPC(you leave earlier)), as well as the regular inverted conditional (B') appeals to knowledge about dependencies between facts in the world: if you leave earlier, you arrive earlier. This kind of dependencies are 'law-like' generalizations about the world. According to Veltman (2005), such 'laws' are part of the facts about the world that make counterfactual statements true (according to Veltman, laws are 'privileged', since we prefer not to give up on laws when evaluating counterfactuals). There are different kinds of law-like dependencies that matter: natural laws (If you put heat water up to 100°C, it boils), habits (If I am cold, I yawn), rules (rules of chess), etc.

In using inversion, B/B' in (264) indicate that the link between antecedent and consequent is known. This is indeed the case since the law-like generalization *if you leave earlier, you arrive earlier* is part of (standard/normal) knowledge in any conversational contexts. This type of generalization is the type of generalization everybody knows. Given the contextual salience of this generalization (its status as common knowledge), it provides an implicit antecedent for the HPC/conditional, and the antecedent clause can count as GIVEN. Let us go through an example in which the law has been overtly stated so we can see how the process works, (265).

(265) A: Si sales antes, llegas antes

if one leaves earlier arrives earlier

'If you leave earlier, you arrive earlier'

B: Siento haber llegado tarde

sorry have.Inf arrived late

'I'm sorry I am late'

A: Haber salido antes [HPC]

have.Inf left earlier

After A's first utterance, *if you leave earlier, you arrive earlier*, the generalization is GIVEN (the same applies if the law is implicit). The HPC uttered by A invokes this (entire) law, but what we are interested in is not that the law is GIVEN, but that the proposition in the antecedent is GIVEN, because this means that the necessary condition for inversion is

satisfied.[10] Schwarzschild's theory allows us to access small pieces of previous utterances and consider them as antecedents (provided there is existential closure and F-closure). The proposition in the HPC in (265), *you leave earlier*, is GIVEN since the utterance of the HPC has an antecedent entailing the proposition in the HPC. The generalization applies to everyone (if B leaves earlier, B arrives earlier). The antecedent of the generalization is 'you leave earlier'. This entails the propostion in the HPC 'you leave earlier'. The HPC in (265) is felicitous since the proposition spelled out in the HPC is GIVEN, and it also fulfills the other constraints on propositions in HPCs. Let me break down this case and put together all we have learnt about HPCs. Assuming that the (silent) consequent in the HPC is *you arrive earlier*, the conditional statement made by the HPC is judged true (it is judged true that in the most similar worlds to the actual world in which you leave earlier, you arrive earlier). Also, from from the previous discourse in (265) A infers that what is taken to be the implicit consequent is desired by B. Moreover, we can accept that the alternative spelled out in the HPC is the strongest sufficient alternative that would have brought about the desired consequences, or at least there is no other alternative stronger than it (see discussion in chapter 5).

The fact that leaving earlier results in arriving earlier could be considered a 'natural law'. We can observe the same phenomena with respect to laws that refer to dependencies between other mundane facts. Let us now consider an example with an implicit generalization. Imagine that the most efficient means of transportation to get to the office is to take a cab (subway stations are far away, buses are not reliable and, after all, traffic is not bad in that part of the city). This is generally known and the generalization can contribute to GIVENNESS. In these circumstances, the dialogue in (266), which we have seen in previous chapters, is perfectly fine.

(266) One of the participants, A, is late for a meeting at the office.

A: I am sorry I am late.

B: Haber tomado un taxi √

have.Inf taken a taxi

'Had you taken a cab...'

B': Hubieras tomado un taxi, habrías llegado a tiempo √

have.2.sg.Subj taken a cab would have arrived on time

'Had you taken a cab, you would have arrived on time'

[10] Arguably, the generalization can be understood as holding of everyone. This means it also holds of B in particular.

Considering the law *if you take a cab, you arrive more quickly*, both the HPC and the antecedent of the inverted conditional in (266) are GIVEN, and thus the necessary condition for inversion in the HPC and inverted conditional is satisfied.

We have seen so far that adopting Schwarzschild's (1999) GIVENNESS fits the data in HPCs. Schwarzschild's GIVEN allows as to consider small portions of previous discourse to establish givenness, and we do not need to claim that the proposition in HPCs is part of the common ground. In addition, Schwarzschild's theory make further predictions that go well with what we find in HPCs. Let us consider a variation of the *vitamin* scenario seen above.

(267) Dr. Shepherd is telling Mrs. Johnson that the results of the tests show that she has osteoporosis. He knows that osteoporosis is not curable, but that it can be prevented by taking either vitamin D or vitamin Z.

Dr. Shepherd: I am sorry, but the results show that you have osteoporosis.

Mrs. Johnson: ¡Oh dios mío! Yo había oído que la osteoporosis se puede prevenir tomando vitamina D. Pero yo odio el sabor de la vitamina D.
'Oh my God! I had heard that osteoporosis can be prevented by taking D vitamin. But I hate the taste of vitamin D'

Dr. Shepherd: Sí, ya sé, te entiendo. Haber tomado vitamina
yes already know cl.2.sg.Acc understand have taken vitamin
Z **[HPC]**
Z
'Yes, I can understand that. Had you taken vitamin Z...'

According to Schwarzschild's (1999) concept of GIVEN, the proposition in the antecedent is GIVEN. The focus structure in Dr. Shepherd's utterance would be as in (268).

(268) Haber tomado vitamina $[\text{Z}]_{\text{F}}$

The proposition in the HPC has an antecedent. In a discourse in which *tomar vitamina D* has been uttered, *tomar vitamina* $[\text{Z}]_{\text{F}}$ is GIVEN.

(269)

∃-type shifting of [*tomar vitamin D*] yields		∃*y*[*y* tomar vitamina D]
Replacing F-marked part of *tomar vitamina* $[\text{Z}]_{\text{F}}$ with variable		[tomar vitamin X]
∃-type shfiting of [tomar vitamina X] yields		∃*y*[*y* tomar vitamina X]
∃-binding F-variable yields		∃*X*∃*y*[*y* tomar vitamina X]
∃*y*[*y* tomar vitamina D]	ENTAILS	∃*X*∃*y*[*y* tomar vitamina X]

Since the proposition in the HPC in (267) is GIVEN (and the other constraints on HPCs are also met), the HPC should be licensed and thus the discourse in (267) acceptable. And indeed it is.

There is clearly a contrast between the dialogue in (267) and the dialogue in (270), similar to the dialogue regarding computers and security codes in (249) above.

(270) Dr. Shepherd is telling Mrs. Johnson that the results of the tests show that she has osteoporosis.

Dr. Shepherd: I am sorry, but the results show that you have osteoporosis. It is not curable.

Mrs. Johson: ¡Oh dios mío! Nunca había oído hablar de esta enfermedad
'Oh my God! I never heard of this illness'

Dr. Shepherd: # Sí, ya sé, haber tomado vitamina Z

Yes, I know..., have taken vitamin Z

[HPC]

As in the case of (249), the utterance of the HPC in (270) is not felicitous. The difference between (267) and (270) is the status of the proposition in the HPC regarding GIVENNESS. The fact that we perceive a contrast between (267) and (270) supports the idea that GIVENNESS, in Schwarzschild's terms, plays a role.

Schwarzschild's theory predicts that as long as the antecedent for an HPC is salient, the necessary conditions for inversion in HPCs are satisfied. This is illustrated in the example below:

(271) John: Yesterday I was talking to Sarah. she was telling me about a dream in which she kept inserting the code $945$8 in her computer. It was crazy! She then went to buy pajamas, and it was crazy, pink pajamas! Anyway! Crazy. But let's talk about you. How are you?

Peter: Well it was long day...
(20 minutes of conversation)

John: Sounds like a long day.

Peter: Yes, but that wasn't it! I opened my computer and then a message popped up, asking me to do something or otherwise it would crash..., and, of course, I know nothing about computers, I did nothing, and it crashed. I needed my computer for the weekend!

John: Mala suerte,... haber insertado el código $945$8 [HPC]

too bad have.Inf input the code

In this example, the HPC will be licensed even if a long time has passed between the utterance of the antecedent of the proposition in the HPC and the HPC itself as long as participants are able to recall the antecedent, i.e. it is salient (and the other relevant conditions are met). The HPC in (271) may be understood as a joke, because participants may both recognize that the code is fictional. But this does not prevent the HPC from being licensed (it will likely be understood as ironic). However, notice that if the antecedent of the proposition in the HPC had not been present, the HPC in (271) would not have been felicitous. A similar example is in (272).

(272) John and Robert are at home watching TV. The news are on:

News: El portavoz del Gobierno declaró que echarle la culpa al Gobierno se ha convertido en el deporte nacional El portavoz declaró que todo el mundo le echa la culpa al gobierno de los problemas en el mundo.
'The Government's spokesman said today that blaming the government has become everybody's favorite pastime. The spokesman said that everybody blames the government for the problems in the world'

(John and Robert start talking about their day. And five minutes later the next exchange takes place)

John: Me dormí esta mañana y llegué tarde a clase. El profesor estaba allí cuando entré por la puerta y se dedicó a interrogarme sobre por qué había llegado tarde. Pero claro, yo no supe qué excusa ponerle sin quedar como un idiota.
'I slept in this morning and I was late for class. When I got to class the teacher was already there and he started interrogating me about why I was late. Of course, I did not know what to say without making a fool of myself.'

Robert: Haber-le echado a culpa al Gobierno [HPC]
have.Inf blamed to the Governemnt

Robert's utterance of the HPC is licensed even though the antecedent has been uttered some time ago and is embedded in a sentence uttered by a news reporter. If the news reporter had not provided the antecedent (and no one else had), the requirements for inversion would have not been met and the HPC wold not be licensed. The same is illustrated in (273).

(273) Antonio: Ayer tomé café con Sara. Se pasó la hora quejándose de que cuando Juan está en problemas se hace el tonto y luego alguien tiene que venir a solucionarlo todo.
'Yesterday I had coffee with Sara. She kept complaining about the time about how whenever John is in trouble he plays dumb and someone else has to step up and do something to solve everything.'

The conversation moves on from Sara to other events during the last few days and eventually the next exchange takes place.

Pablo: El jefe vino ayer a decirnos que alguien había estropeado la impresora y buscaba al culpable. Yo creo que pensaba que había sido yo pero no supe cómo reaccionar.
'My boss came in yesterday to tell us that someone had broken the printer and that he was looking for the person who had done it. I think he thought it had been me but I did not know how to react'

Juan: Haberte hecho el tonto [HPC]
have.Inf-cl.2.dat done the stupid
'Had you played dumb...'

The inversion in the HPC uttered by Juan in (273) is licensed because there is a salient antecedent. Even though the antecedent is uttered a while ago and is embedded in a sentence, as long as the antecedent of the HPC is salient, the necessary conditions for inversion in HPCs are satisfied and (provided all the other constraints are met) the HPC is licensed.

6.1.3 Interim summary

I have argued above that inversion signals that the antecedent is GIVEN. Only when the antecedent is GIVEN is inversion licensed. Inversion thus adds another dimension to the meanings of HPCs. We have already seen that the truth of an HPC depends on the truth of a conditional relation. We have also seen that the IQuD addressed by the HPC provides us with the information that the consequent in the HPC is desired. After investigating inversion in this chapter we can add that the utterance of an HPC will only be licensed if the antecedent proposition is GIVEN in the discourse.

We saw above that HPCs, as conditionals, were not unique with respect to some of the facts that make them interesting. They share with other conditionals the fact that the consequent is desired (see the discussion on optatives in chapter 5). However, in our discussion of inversion we have not mentioned any other language in which inversion in conditional antecedents signals GIVENNESS.

6.2 Inversion in HPCs and reproaches

HPCs are stereotypically (but not always!) understood as reproaches. In this section I will briefly discuss how this meaning comes about, and present an experiment that provides evidence supporting the claim that HPCs are typically interpreted as reproaches.

6.2.1 The 'reproach' meaning in HPCs

HPCs are stereotypically used as reproaches. I would like to link this to the givenness status of the antecedent proposition. There are various points in the development of a discourse at which something will be uttered that makes the HPC antecedent GIVEN. There are

two different scenarios: either the proposition was entertained at a time when the addressee could have done something to bring it about and didn't, or it was entertained at a later time (or was out of the addressee's control). The "reproach" interpretation arises in the first case. Various options are schematized below:

(274) a. α was epistemically available at the time something else happened

i. The addressee could have brought about α but did something else instead

- the context was biased towards α (advice or world knowledge) [Reproach]
- the context was not biased towards any alternative [No reproach]

ii. The addressee had no power to bring about α [No reproach]

b. α has just been mentioned in the discourse (but was not epistemically available when it could have become true) [No reproach]

There are various ways in which α may be epistemically available. The options are presented in more detail in (275).

(275) Different ways α can be epistemically available at the time something else happened:

$$\alpha \text{ was epistemically available} \left\{ \begin{array}{l} \left\{ \begin{array}{l} \alpha \text{ raised in the previous discourse, (276)} \\ \alpha \text{ part of the world knowledge, (277)} \end{array} \right\} \text{(prom. alts)} \\ \alpha \text{ salient alternative (no prominence, (278))} \end{array} \right\}$$

There is an important difference between the different ways α can be epistemically available. The main difference refers to the status of the alternative α amongst all the possible alternatives. α may be a prominent alternative amongst the salient alternatives, and in these case the HPC conveys a reproach:

(276) Tim told Robert to stay home with him if he wanted to watch tonight's game, because Tim predicted that every bar would be crowded. Robert preferred to go out anyway. Some time later, Robert comes back:

Robert: Oh man! I couldn't watch the game. It was impossible to get into any bar. It was so crowded.

Tim: Haber-te quedado en casa (reproach)

have.Inf-cl.2.sg stayed at home

'Had you stayed home...'

(277) Tom is home with pneumonia because he went for a walk to the mountain without a coat and temperatures were below 0°F. He told this to Sam, to whom he is now complaining.

Tom: Oh my! I am so sick!

Sam: Haberte puesto un abrigo (reproach)

have.Inf-cl.2.sg put on a coat

'Had you worn a coat...'

In (276) and (277) there is reproach. The addressee is considered to have failed to bring about the desired consequences. When the addressee of the HPC decided to go elsewhere to watch the game or to go out for a walk without a coat, he knew that there were other prominent options (namely, to stay home, as Tim asked, or to wear a coat in winter, as common sense would have it).

However, α can also merely be one alternative amongst all the others, (278). If α in HPC(α) is not a prominent alternative (the context is not biased), HPC(α) is not understood as a reproach:

(278) Sam is telling John a story about how he was disconnecting a bomb.

Sam: So, there were two cables, one red and one blue. I decided to cut the red one, but the bomb exploded.

John: Well..., yeah, I would have done the same thing... Too bad, but...

Haber cortado el cable azul (no reproach)

have.Inf cut the cable blue

'Had you cut the blue cable...'

In (278) there is no reproach. At the time Sam cut the red cable nothing biased the choice towards the blue cable. There was nothing to help Sam to decide between the blue or the red cable.

Even though the HPC in (278) is not understood as a reproach (there is no way the addressee is blamed for not bringing about α), it is not nice to point out the obvious (let alone to point out the obvious when the desires have not been brought about). Thus HPCs, even when they are not understood as reproaches, are not very kind and are often inappropriate.

In the next section I present experimental results supporting the claims made in this section.

6.2.2 Experiment: Inversion in HPCs and reproaches

I argued above that HPCs are only licensed when the embedded proposition is GIVEN in Schwarzschild's (1999) terms. The second claim made in the previous section is that HPCs are not necessarily reproaches, i.e. it is not the case that when uttering an HPC the speaker is necessarily blaming the addressee because the desired circumstances have not been brought about. However, to support the claim with more than anecdotal evidence, I conducted an experiment testing these intuitions.

6.2.2.1 Method

Materials

The experiment had two goals: (i) to test the licensing conditions for HPCs; and (ii) to test whether HPCs necessarily indicate reproaches. In order to test the licensing conditions for HPCs twelve items were designed in which the proposition embedded in the HPC was either previously mentioned, (276), or could be taken to be world knowledge, (277). Amongst those twelve items there were six items in which a reproach was intended, like (276) and (277), and other six items in which no reproach was intended, (278).

Twelve other scenarios were designed in which the proposition embedded in the HPC was not GIVEN in Schwarzschild's (1999) terms, (279). Those items are predicted not to be acceptable (only HPCs in which the embedded proposition is GIVEN are predicted to be licensed).

(279) A message in your computer pops up. Part of the system is crashing and you have to do something or it will be fatal. You don't know anything about computers, you do nothing, and the computer crashes. You are now telling the story to your friend Mr. Jobs (head of Apple Computers).

Mr. Jobs (b): # Haber introducido el comando $111$$3998 en el sistema

have.Inf input the command in the system

'Had you input the command $111$$3998 in the system...'

The twelve items predicted to be good with respect to the discourse licensing conditions also served the purpose of testing the second claim, i.e. the claim regarding reproaches. Six items involved reproaches, whereas in the other six items there was no reproach involved.

Participants and procedures

Twenty-nine students from Universidad Rey Juan Carlos (Madrid, Spain) volunteered to answer a written questionnaire. No reward of any kind was offered in exchange. They read instructions indicating that that they were to answer questions regarding a dialogue following a given scenario. They were told that responses could be obvious to them, and that there were no right or wrong answers. The questionnaire was designed to capture their first intuitions. In addition, participants were asked to include any comments they might have after every item. The items were presented as in (280).

(280) Juan le está contando a Antonio la historia de cuando intentó desconectar una bomba

JUAN: Había dos cables, uno rojo y uno azul. Tenía que decidir y corté el azul, pero la bomba estalló.

ANTONIO: ¡Qué le vamos a hacer! ¡Mala suerte!, yo habría hecho lo mismo, pero..., haber cortado el rojo.

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

Sí	
No	

¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

Sí	
No	

The first question asked in (280) probes the acceptability of the dialogue, whereas the second probes culpability.

6.2.2.2 Results and discussion

Let me start with the results regarding the discourse licensing conditions for HPCs. The claim made above is that HPCs are licensed only when the embedded proposition is GIVEN. In order to test this claim I designed twelve items in which the HPC was licensed (the embedded proposition was GIVEN and the other constraints were also met), and twelve items in which the proposition embedded in the HPC was not GIVEN (but the other constraints were met). The means are presented in Table 6.1.

Table 6.1. Acceptability Percentage

Condition	Acceptability percentage
HPC with GIVEN proposition	87.9%
HPC with no GIVEN proposition	14%

The raw percentages show that HPCs are certainly licensed when the embedded proposition is GIVEN (and the other constraints are also met). When the embedded proposition is not GIVEN the acceptability percentage drops to a mere 14%. Indeed, acceptability for these items drops as low as 9% if we do not consider one of the items (item 5c), which is an outlier.[11] A t-test analysis on the results show a significant difference between the two ($t(28) = -28.69$, $p < 0.00001$).[12] We can thus conclude that for an HPC to be licensed the embedded proposition has to be GIVEN.

Regarding the question of whether there is an acceptability difference between items in which a reproach was conveyed and items in which a reproach was not conveyed, the acceptability percentages are shown in Table 6.2.

Looking at the table we can observe that HPCs are accepted when no reproach is conveyed (its acceptability percentage is 83%). However, they are even better when there is a reproach. Indeed, a t-test shows that there is a significant difference between the two items

[11] I keep this item for the rest of the statistical analysis.

[12] p-value $= 2.2x10^{-26}$.

Table 6.2. Acceptability Percentage in licensed HPCs

Condition	Acceptability percentage
HPC GIVEN: Reproach conveyed	93%
HPC GIVEN: No reproach conveyed	83%

($t(28) = -3.2942$, $p = 0.0026$). There is a clear explanation for this difference. I have pointed out above that even though HPCs do not necessarily convey a reproach, uttering an HPC is not kind at all because, in any case, "it is not nice to point out the obvious (let alone to point out the obvious when the desires have not been brought about). Thus HPCs, even when they are not understood as reproaches, are not very kind and are often inappropriate." When HPCs are used in a situation in which no one is to blame for not having brought about the desired consequences, some participants indicated that they did not quite like the HPCs. They said that they were too cruel or unkind, thus they did not give them a '5' rate.

Let us turn now to the issue of blame and reproachability more concretely. I have argued that HPCs are good even if they do not convey a reproach, and that is what the results seem to say. However, to make sure that the items were well designed, and HPCs were accepted even if the speaker did not hold the addressee responsible for not bringing about the desires, the experiment also included a question targeting this issue. Recall that, amongst the items discursively licensed, there were exactly 6 items that conveyed a reproach, and 6 items that did not convey a reproach. Participants were asked whether the speaker of the HPC considered the addressee responsible for not bringing about the desires. The responses percentages are shown in Table 6.3.

Table 6.3. Culpability Percentage in licensed HPCs

Condition	Culpability percentage
HPC GIVEN: Reproach conveyed	83%
HPC GIVEN: No reproach conveyed	14%

The percentage shows that even though an HPC was used in both kinds of scenarios, participants agreed with the fact that in the scenarios designed not to convey a reproach, a reproach was not conveyed by the utterance of the HPC (even if an HPC was uttered). A $t-$test also shows a significant difference in culpability rates ($t(28) = -13.18$, $p < 0.00001$).[13] Thus we can conclude that HPCs can be licensed in the discourse without conveying reproaches.

To finish with the experimental results let us look at a last small point. In the above section I claimed that HPCs were licensed only if the embedded proposition was GIVEN,

[13] $p = 1.5x10^{-13}$.

and this can be either because the proposition is part of world knowledge, or because it was previously mentioned in discourse. In both cases, the antecedent proposition is GIVEN, and the proposal argued for in this chapter predicts that no difference should be found between the two cases. Indeed, the results show that there is no significant difference in terms of acceptability or in terms of culpability regarding these two kinds of items. Both are equally acceptable, and in both cases speakers indicated that culpability can be conveyed. Hence, as predicted by the theory argued for above, we can conclude that Spanish speakers do not make a difference between GIVENNESS based on previous discourse and GIVENNESS based on world knowledge with respect to the points that interest us in HPCs. The percentages are in Table 6.4 and Table 6.5.

Table 6.4. Acceptability Percentage and GIVENNESS

Condition	Acceptability percentage
HPC GIVEN: Previous Discourse	90%
HPC GIVEN: World Knowledge	95%

Table 6.5. Culpability Percentage and GIVENNESS

Condition	Culpability percentage
HPC GIVEN: Previous Discourse	84%
HPC GIVEN: World Knowledge	82%

The results of $t-$tests show that there is no difference regarding acceptability between the two ($p = 0.16$), nor there is a significant difference regarding culpability between the two kinds of items ($p = 0.65$). We can conclude then that there is no evidence that HPCs in which GIVENNESS is due to world knowledge differ from those in which GIVENNESS is due to mention in the previous discourse.

A complete picture is given in table 6.6.

Table 6.6. Summary percentages

	Acceptability	**Culpability**
Given	87.9%	
Reproach	93%	83%
Previous discourse	90%	84%
World Knowledge	95%	82%
No Reproach	83%	14%
Not Given	14%	

6.2.2.3 Conclusion

The experimental results support the claims made above regarding the discourse licensing conditions for HPCs and the fact that HPCs are stereotypically but not invariably used as reproaches. This last result is very welcome, since it means that we do not need to add any additional conventionalized meaning beyond what is already associated with inversion.

6.3 Inversion in conditionals: the case of English

We have seen above that inversion in Spanish signals that the antecedent proposition antecedent is given in Schwarzschild's (1999) terms. In what follows I argue that this is also the case in English. However, there are other proposals in the literature. In particular the proposal in Iatridou and Embick (1994). To my knowledge, these authors were the first to notice that inversion in conditionals is not a stylistic variation.

Let me first briefly summarize Iatridou and Embick's (1994) proposal. The authors first illustrate the contrast between conditionals with inverted and non-inverted antecedents with respect to the differences in the licensing of focus adverbs: according to these authors, focus adverbs do not associate with inverted conditional antecedents, whereas they do associate with non-inverted ones. This is taken as an indication that maybe inverted conditionals cannot be focused. The hypothesis seems to be borne out when inverted-antecedents are inspected in focus environments, such as answers to questions and clefts in which inverted antecedents are not possible. The question is: why is this so? Iatridou and Embick propose that inversion in antecedents marks the proposition in the antecedent as *old information* (its status is decided in the Common Ground) and explain the data by arguing that old information cannot be focused.

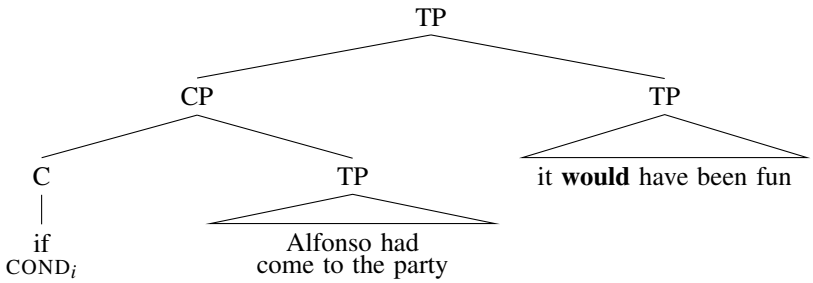
In the sections below I go through the arguments and offer an alternative view. I begin by clarifying that what is claimed in this chapter regarding conditional inversion does not extend to inversion in non-wh questions, §6.3.1.

6.3.1 Counterfactual inversion and movement from T to C

In previous chapters I worked with a very simple structure for conditionals according to which the *if*-clause restricts directly the domain of quantification of the modal. This was sufficient since we were only interested in the structure within the *if*-clause. To address Iatridou and Embick's discussion of inversion in English and provide more syntactic details of the notion of inversion, it will be necessary to adopt a syntactically more sophisticated structure. However, even now, I do not wish (or need) to take on the full set of issues surrounding the syntax of conditionals. In what follows I assume a relatively simple account of the syntax of conditionals and inversion in the antecedent clause. There are other proposals for the syntax of conditionals, which differ in ways that are not relevant now. I will

assume what may be considered a default account, which is also found in the literature. It is illustrated in (281) (details here belong to Rawlins 2008).

(281)



In (281), the conditional antecedent is like any other adjunct. Following Rawlins (2008) a.o., there is no need to make any significant assumption about the LF of a conditional sentence. *If*-clauses are treated as restrictors of the domain of quantification of the modal (Lewis, 1973; Kratzer, 1977; Heim, 1982, a.o.), i.e. the conditional adjunct provides some temporary assumptions restricting the context used for evaluation by the modal. In Rawlins's (2008) account, the restriction of the context is mediated by an interpretable feature in C, COND. COND restricts the context in which the consequent clause is evaluated. The feature is not restricted to conditionals and thus it is not exclusive to conditional complementizers like *if*. The claim is that a feature like this is needed in the grammar independently from conditionals to analyze other constructions in which there is a domain restriction. As an example, Rawlins mentions restrictive *when*-clauses, already discussed in Lewis (1975), Farkas and Sugioka (1983) and Hinterwimmer (2007), (282) and (283).

(282) When m and n are positive integers, the power m^n can always be computed by successive multiplication. (Lewis)

(283) John is grouchy when he is hungry. (Farkas and Sugioka)

(Cited from Rawlins 2008, pg. 86)

In sum, COND is an interpretable feature in C that identifies the *if*-clause as a conditional adjunct that restricts the domain of quantification of the consequent. Rawlins (2008) suggests that the complementizer *if* is compatible with COND and phonologically realizes it. When *if* is not part of the numeration, there is movement of the auxiliary to C, and COND is phonologically realized by the auxiliary. Pesetsky (1989) already argued that movement of the auxiliary in inverted conditionals is movement from T to C.The auxiliary moves from T to C possibly because of the need to phonologically realize the feature COND$_i$.

Movement from T to C arises when the conditional complementizer is absent in the numeration. In this sense, movement from T to C is not optional. With the assumptions made above, the claim that "inversion is optional" can only refer a lexical optionality: there are two possible numerations delivering conditional adjuncts. One numeration contains

a complementizer, whereas the other doesn't. However, when the numeration does not contain a complementizer, movement is not optional.

Iatridou and Embick (1994) offer empirical observations regarding conditional inversion across languages. For example, they observe that there is language variability with respect to the type of conditional in which inversion is allowed. While English only allows inversion in counterfactual conditionals,[14] German allows inversion also in indicative conditionals.

(284) English Counterfactual conditionals

a. If John had eaten the calamari, he might be better now

b. Had John eaten the calamari, he might be better now

(285) English indicative conditionals

a. If John has eaten the calamari, there will be no food left for us.

b. *Has John eaten the calamari, there will be no food left for us.

(286) German Counterfactual conditionals[15]

a. Wenn Hans gekommen wäre, dann wäre Susanne abgefahren
if Hans had come then would-have Susanne left
'If Hans had come, Susanne would have left'

b. Wäre Hans gekommen, dann wäre Susanne abgefahren
had Hans come then would-have Susanne left
'Had Hans come, then Susanne would have left'

(287) German indicative conditionals

a. Wenn Hans kommt dann geht Susanne
if Hans comes then goes Susan
'If Hans comes, Susan goes'

b. Kommt Hans dann geht Susanne.
comes Hans then goes Susan
'If Hans comes, Susan goes'

(Iatridou and Embick, 1994, ex. (1), (4), (3) and (2))

Languages vary not only in which conditionals may have inverted antecedents, but also with respect to other possible T to C movements. The data seems to suggest that for a

[14] I am using the term counterfactual to make reference to the presence of past tense and perfect aspect in the antecedent. This is not a claim about the truth-value of the antecedent proposition. In the literature, the term 'subjunctive conditional' is sometimes used in this way.

[15] German speakers report that non-inverted conditionals are better without *dann*.

language to have subject-auxiliary inversion in conditionals, it also needs to allow inversion in questions (although the reasons are unclear). However, this correspondence does not work in the other direction: not all languages in which there is movement from T to C in questions allow counterfactual inversion. This seems to indicate that movement from T to C in questions and in conditionals is different: the movement is triggered by independent reasons and, arguably, to different positions within the CP domain. Let us briefly review some differences.

In questions, movement from T to C is not subject to the constraints we observe in conditionals and and both auxiliaries and modals move to C, (288). However, not every modal can invert in conditionals, (289).

(288) a. Have you gone to the supermarket?
b. Should you go to the supermarket?
c. Could you go to the supermarket?

(289) a. Had you to gone to the supermarket, you would have bought artichokes
b. Should you go to the supermarket, you wouldn't have to go to the bakery
c. *Could you go to the supermarket, you wouldn't have to go to the bakery

English questions and conditionals also behave differently with respect to contracted negation. Inverted counterfactuals do not allow contracted negation, whereas contracted negation is possible in questions.

(290) a. Hadn't he seen the car coming?
b. *Hadn't he seen the car coming, he would have been killed
c. Had he not seen the car coming, he would have been killed

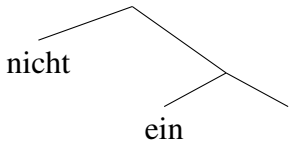
(Iatridou and Embick, 1994, ex. (8))

Rawlins (2008) offers arguments from (un)conditionals in favor of a COND feature being located in a position different from the Q feature. In particular, Rawlins argues that the COND feature is located above the Q_i feature (responsible for movement in questions). This seems to fit the picture: if movement from T to C in questions were exactly the same movement we find in counterfactuals, motivated by the same factors and targeting the same position, we would expect the same properties. However, as observed, this is not the case.

The data regarding contracted negation and questions refers to outer-negation-questions. Negation in these questions is above TP. One way to explain the contracted negation data is to consider negation as a feature. In English this feature can be hosted in the same position as the question feature Q, but cannot appear with the conditional feature COND. There is no clear explanation for why COND is not compatible with negation but it may very well be a constraint specific to English. In German there is no contracted negation in questions or in conditionals. We can attempt a comparison between the behavior of negation

in counterfactuals and questions in German by looking at cases with indefinites, although this comparison is far from being conclusive. This German data is presented below (for the sake of completeness). We will compare (292) and (293b) by focusing on the possibility of having *nicht* (negation) + *ein* (indefinite), and the contracted version *kein*. German *kein* is the spell out of negation and indefinites in a local relation:

(291)



When locality is not met, the spell out is *nicht ein*. In German, both *kein* and *nicht ein* are possible, (292), and the same is found in counterfactual conditionals, both inverted and non-inverted, (293a) and (293b).

(292) German questions: both *kein* and *nicht ein* are possible.

a. Hast du kein Auto gesehen?

have you no car seen

'Did you not see a car?'

b. Hast du nicht ein Auto gesehen?

have you not a car seen

'Didn't you see a car'

(293) German Counterfactuals

a. Non-inverted: both *kein* and *nicht ein* are possible.

i. Wenn ich kein Geräusch gehört hätte, (dann) wäre ich nicht

If I no sound heard had (then) would I not

weggelaufen.

have run away

'If I hadn't heard a sound, I wouldn't have run away.'

ii. Wenn ich nicht ein Geräusch gehört hätte, (dann) wäre ich nicht

If I not a sound heard had (then) would I not

weggelaufen.

have run away

'If I hadn't heard a sound, I wouldn't have run away.'

b. Inverted: both *kein* and *nicht ein* are possible.

i. Hätte ich kein Geräusch gehört, (dann) wäre ich nicht
had I no sound heard (then) would I not
weggelaufen.
have run away
'Had I not heard a sound, I wouldn't have run away.'

ii. Hätte ich nicht ein Geräusch gehört, (dann) wäre ich nicht
had I not a sound heard (then) would I not
weggelaufen.
have run away
'Had I not heard a sound, I wouldn't have run away.'

In German we can have both the syncretic and the analytic version of negation, thus supporting the idea that the impossibility of contracted negation in English inverted conditionals is somehow parametrized. In the case of (292a), negation is high, above the TP and seems not to be in a direct relation with the indefinite, hence we obtain *nicht... ein* and not *kein*. Indeed, the interpretation is that of outer negation questions (Ladd, 1981) in which negation has propositional scope. However, in (292b) negation is low (the interpretation is that of inner negation questions, Ladd 1981) and can enter into a relation with the indefinite, thus resulting in *kein*. Turning to counterfactual conditionals, the only thing we can observe related to the English data is that German counterfactuals are fine with high negation, resulting in *nicht... ein*, as well as with low negation, resulting in *kein*, both in inverted and non-inverted conditionals, (293a)-(293b).

The facts reviewed above indicate that the movement in questions and in conditionals is different (driven by different features, and to different positions) and hence the claims made in this chapter regarding conditional inversion do not extend to inversion in questions.

The differences between questions and conditional adjuncts are also explored in Bhatt and Pancheva (2006). Questions and conditional adjuncts have been compared in the literature several times. Indeed, Kayne (1991) argued that the *if* in embedded questions (*John wondered if Mary came*) and the *if* in conditionals are one and the same. Bhatt and Pancheva (2006) interpret Kayne's words as meaning that "the featural content of *if* is the same whether it appears in conditional clauses or in interrogative clauses". Bhatt and Pancheva (2006) recognize that there is a link between questions and conditional adjuncts. However, in Bhatt and Pancheva's (2006) proposal this link is not directly established between questions and conditional adjuncts. The link is between questions and free relatives. Indeed, Bhatt and Pancheva (2006) notice that assuming that conditional adjuncts and ques-

tions are alike makes it hard to explain certain empirical facts. The authors argue that the fact that counterfactual conditionals allow inversion more widely than indicative conditionals seems to indicate that questions and conditional adjuncts do not go hand in hand (i.e. if conditional adjuncts and questions were alike with respect to inversion, it is hard to explain why inversion is more widely allowed in counterfactual conditionals than in indicative conditionals, while it is possible in questions in general). (See Rawlins (2008) for a proposal to distinguish *if* in conditional adjuncts and in embedded questions).

To summarize, languages allowing movement from T to C in questions may also allow movement from T to C in counterfactual conditionals. However, the movement from T to C in counterfactual conditionals seems to be different from the movement from T to C in questions. My discussion of the properties of inversion in this chapter is restricted to the case of conditionals. It does not refer to movement in questions.

6.3.2 The discourse status of the antecedent

The general claim in this section is that inverted and non-inverted antecedents differ with respect to meaning also in the case of English (I have already argued this for Spanish above). There are different positions one may adopt. I first introduce a proposal made in the literature according to which English inversion indicates that, at the time of the utterance of the inverted conditional, the antecedent proposition is presupposed to be false, §6.3.2.1 . This is the proposal of Iatridou and Embick (1994). It amounts to saying that counterfactuality in inverted antecedents is not an implicature (which is taken to be the case in non-inverted counterfactuals since Anderson 1951), but a presupposition. In §6.3.2.2 I argue that counterfactuality in inverted antecedents is actually an implicature. In §6.3.2.3 I propose an alternative explanation for the English facts.

6.3.2.1 A presuppositional account

We have seen that counterfactual conditional adjuncts preceding the consequent may have two forms: one in which there is a complementizer, *if*, and one in which there is movement of the auxiliary from T to C. Iatridou and Embick (1994) argued that these two ways of conveying conditional antecedents are not mere stylistic variations. They argue that there is a difference in meaning.

Iatridou and Embick (1994) claim that inverted antecedents involve *old information*, specifically that the truth-value of the proposition in the antecedent is known to be false at the utterance time. They support their claim with the following scenario (based on a suggestion by Eric Reuland): "You arrive at the house of friends, who know that you have just been to a job interview but do not know the results. Uttering (294a) at the dinner table would be a (characteristically witty) potential conversational move, but (294b) would, as Bernhard Rohrbacher (p.c.) put it, leave some of the people present wondering why they had been left out of a previous announcement about the interview results:"

(294) a. If I had been offered the job, I would have brought champagne
b. Had I been offered the job, I would have brought champagne

(Iatridou and Embick, 1994, pg. 200, ex. (45))

Considering (294), Iatridou and Embick (1994) claim that what is backgrounded in an inverted in counterfactual conditionals *Had* α, β is $\neg\alpha$, i.e. that it is part of the Common Ground that the antecedent proposition is false, (295).

(295) Had I been offered the job, I would have brought champagne
Old Information: I was not offered the job

This idea is also taken up by Horn (2000b), who uses Iatridou and Embick's (1994) data and analysis to support a more general view of inversion as licensed for pragmatic reasons.[16]

6.3.2.2 An implicature account

In this section I will review the claim that in *had* α, β, $\neg\alpha$ is what is backgrounded. When saying that $\neg\alpha$ is backgrounded, we are saying that $\neg\alpha$ is part of the common-ground. If inversion indicates that it is part of the common ground that the antecedent proposition is false in the actual world, counterfactuality in conditionals with inverted antecedents would not be an implicature, it would be a presupposition. Following this reasoning, it couldn't be cancelled the way it is cancelled when the antecedent is not inverted.

Counterfactuality has been considered an implicature since Anderson (1951):

(296) "In the investigation of Jones' death, a doctor might say "If Jones had taken arsenic, he would have shown just exactly those symptoms which he does in fact show". Now in this context the doctor's statement would probably be taken as lending support to the view that Jones took arsenic -it would certainly not be held to imply that Jones did not take aresenic."

(Anderson, 1951, pg. 37)

In the example in (296), the negation of the antecedent is cancelled. The conditional supports the view that Jones took arsenic, indicating that counterfactuality is an implicature.

If inverted antecedents presuppose that the proposition in the antecedent is false, it would not be possible to cancel counterfactuality.[17] Is that what we find? The impression is that the counterfactual in (297) is as acceptatble as its non-inverted counterpart.

---

[16] According to Horn (2000b), the inversion of an element marks it as pragmatically presupposed, "in particular as salient, 'Chafe given' (Prince 1981) or consciousness-presupposed (Lambrecht 1994)."

[17] In this dissertation I am assuming that presuppositions are not cancelable. However this is not necessarily true for all accounts of presupposition. See Kadmon (2001) and references therein on this respect.

(297) Had Jones taken arsenic, he would have shown just exactly those symptoms which he does in fact show

As in the counterfactual in (296), counterfactuality in (297) is cancelable, illustrating that in counterfactuals with inverted antecedents, counterfactuality is still an implicature.

It is true, as observed in Iatridou and Embick's (1994) examples, that there is a contrast between conditionals with inverted and non-inverted antecedents. The contrast, however, does not concern the implicature vs. presupposition status of counterfactuality. Consider the contrast between (298) and (299). The scenarios in both examples are the same, but the conditionals are different. In (298) we have an inverted antecedent and it is quite odd, whereas in (299) the conditional does not have inversion in the antecedent and it is fine.

(298) Ann, John, and Peter are having coffee together chatting about holiday plans. Abruptly changing the topic, John starts talking about Maria, who everybody knows was having a job interview today.

John: I just saw Maria buying a special dijon mustard at the store

Ann: Mm... #Had Maria gotten the job, she would have bought dijon to cook her favorite dish

(299) Ann, John, and Peter are having coffee together chatting about holiday plans. Abruptly changing the topic, John starts talking about Maria, who everybody knows was having a job interview today.

John: I just saw Maria buying a special dijon mustard at the store

Ann: Mm... If Maria had gotten the job, she would have bought dijon to cook her favorite dish

The dialogue in (298), in which the antecedent is inverted, is odd, whereas the dialogue in (299), in which the antecedent in the counterfactual conditional is not inverted, is perfectly fine. Consider now (300), in which the conversation differs from (298) and (299).

(300) Ann, John, and Peter are having coffee together chatting about holiday plans. Abruptly changing the topic, John starts talking about Maria, who everybody knows was having a job interview today.

John: I just saw Maria buying a special dijon mustard at the store

Ann: She must have gotten the job

Peter: What does buying dijon have to do with the job?

Ann: Had Maria gotten the job, she would have bought dijon to cook her favorite dish. So it is quite likely that she did!

As in (296), the acceptability of the dialogue in (300), in which it is established that possibly Maria has gotten the job, indicates that in inverted antecedents counterfactuality is an implicature. The contrast between the acceptability of (300) versus the oddness of (298) indicates that, for conditionals with inverted antecedents to be felicitous, special discourse conditions need to be met. Intuitively, the claim is that conditionals with inverted antecedents are good once the alternative expressed in the antecedent has already been discussed. In this case, Maria's getting a job.

The scenario in (301) makes the same point with a present tense example (to eliminate concerns about the epistemic role of past tense, see Iatridou 2000).

(301) A: I wonder if Maria is at the meeting
B: I just saw John coming out of the conference room smiling
A: Well, then she is probably not there
B: Why do you say that?
A: Had she been there, John would not have been that happy

The point in the scenarios above is that, at the end of the dialogue, we do not really know what the status of the proposition in the antecedent is. I may or may not be true that Maria is attending the meeting. Inversion does not indicate that the proposition in the antecedent is established as false. As we have seen above, what matters is that the alternative presented in the antecedent proposition has been entertained before the utterance of the inverted conditional. The account of the meaning of inversion in conditionals discussed for Spanish can thus be extended to the case of inversion in English conditionals.

As expected, given our proposal for inversion, inverted antecedents do not sound good out of the blue. However, one can start a conversation with an *if*-conditional.

(302) A enters the room with the newspaper in his hand:
A_1: ? You know, had you bought tickets for tonight's basketball game, you could resell them for a fortune.
A_2: You know, if you had bought tickets for tonight's basketball game, you could resell them for a fortune.

With no previous discussion of tickets, A_1's utterance is somewhat odd, while A_2's is not. It is true that, given accommodation, judgements on inverted conditional antecedents can be hard. We can try to make sense of A_1 in (302) by assuming that there was previous talk about the addressee buying tickets for tonight's game. However, if that is not the case, and we understand that what triggered A_1's utterance was simply, say, the saliency of a sports page, A_1's utterance is not good.

To sum up, inversion is a strategy to relate an utterance to the previous discourse: it marks the proposition as previously considered/entertained. Inversion refers to the status of the proposition with respect to the discourse dimension.

6.3.2.3 Explaining the data

I have claimed that inversion in conditional antecedents indicates that the antecedent proposition has been entertained, construing this as GIVEN in Schwarzschild's (1999) terms. I have argued this for the case of Spanish and I would like to extend it to English.[18] Here, I depart from Iatridou and Embick, who claim that inversion indicates that the truth value of the antecedent proposition is already known, i.e. it is presupposed that the antecedent proposition is false. However, I haven't explained why speakers might have the intuitions in Iatridou and Embick report with respect to (294), repeated below for convenience.

> "You arrive at the house of friends, who know that you have just been to a job interview but do not know the results. Uttering (294a) at the dinner table, would be a (characteristically witty) potential conversational move, but (294b) would, as Bernhard Rohrbacher (p.c.) put it, leave some of the people present wondering why they had been left out on a previous announcement about the interview results:"

(294) a. If I had been offered the job, I would have brought champagne
b. Had I been offered the job, I would have brought champagne

(Iatridou and Embick, 1994, pg. 200, ex. (45))

According to the proposal made here, the oddity of (294b) is due to the assumption that the alternative in the antecedent has already been entertained, whereas according to Iatridou and Embick's (1994) proposal, the oddity of (294b) is due to the unsatisfied presupposition that the antecedent proposition is false. Given my proposal, the problem raised by (294b) is *why are we assuming that the alternative expressed by the proposition has already been entertained?*, whereas in Iatridou and Embick's (1994) account the problem is *why are we*

---

[18] In my discussion of English I will not deal with examples in which GIVENNESS arises on the basis of known generalizations (laws). The details of this discussion for English lie outside the scope of this dissertation. However, it is worth noting that a preliminary overview of relevant data suggest that English is similar to Spanish.

(i) Mom gets back after a week-long business trip and as she enters the house she can see right away that her child has not done his chores of the day: the garbage is in and the dishes are dirty. Just as she is leaving her bags on the floor, her child appears on his way out.
Child: Hi mom! Bye mom!
Mom: Where are you going?
Child: I'm going to the mall with my friends.
Mom: You are not allowed to go anywhere. Had you done your chores, you would be able to go with your friends. But since you haven't, you are grounded.

In the small exchange above, the mother is appealing to the well-known generalization operating in the household that if the child does not do his chores, he is not allowed to go with his friends. Here, we have inversion but there is no previous discourse that makes the antecedent proposition GIVEN. Rather, inversion is licensed by the implicit law.

assuming that the proposition in the antecedent is false? Example (294) seems to support Iatridou and Embick, since the speaker of (294b) appears to take for granted that he did not get the job and that this is already known by the audience. How is this be explained in my account?

Iatridou and Embick's (1994) example in (294) is biased towards the falsity of the proposition in the antecedent, but this is not a bias of the conditional constructions but rather a bias brought about by the use of a first person pronoun. One imagines that if there is anyone who knows whether they have been offered a job or not, it is the person to whom the job may have been offered. And yet, the speaker uses a counterfactual conditional with the implicature that it is false that he/she was offered the job. If we consider the use of a first person in (294b), together with the meaning of inversion argued for above and the fact that the construction is counterfactual (implying that the antecedent is false), the conclusion is a strong inference that the antecedent is in fact false. It is hard not to reach that conclusion when the the person most interested in getting the job implies that he/she didn't. Indeed, if we change (294) to a third person the bias towards the falsity of the antecedent lessens.[19] Let us examine the examples in (303) and (304).

(303) (A and B are chatting to each other while looking at John, a little distance away)
A: I wonder if John got the job
B: Well, had he gotten the job, he would be behaving exactly as he is doing; so, he probably did

(304) (A and B are chatting to each other while looking at John, a little distance away)
A: I wonder if John got the job
B: Well, had he gotten the job, he wouldn't be here drinking. So he probably didn't. But we should make sure. Go ask him.

Nothing is clear/resolved regarding whether John has or has not been offered the job in either of these examples. This indicates that the strong counterfactuality noted by Iatridou and Embick (1994) was associated with the first person, and not part of the meaning of the construction.

To sum up, inversion in counterfactual conditionals does not signal that the antecedent proposition is known to be false at the time of utterance. Inversion in English counterfactual conditionals carries the pragmatic presupposition that the antecedent proposition had been previously entertained in the discourse. The impact of inversion in the English examples, just as in the case of Spanish HPCs and inverted conditionals, is to link the antecedent to previous discourse. Schwarzschild's (1999) GIVENNESS explains inversion in both cases.

---

[19]Some English speakers find the example below difficult. However, they find the non-inverted version as difficult. This seems to indicate that the problem is thus not related to inversion, but rather to a strong counterfactuality inference across the board in counterfactual conditionals.

Inverted conditionals have been argued to differ from non-inverted conditionals with respect to facts other than the status of the antecedent. Iatridou and Embick (1994) derived other differences from their initial idea that inversion indicates that the antecedent proposition is known to be false. In what follows I review the facts pointed out in Iatridou and Embick (1994) and account for them without appealing to their hypothesis.

6.3.3 Focus adverbs

There are differences between inverted an non-inverted conditional antecedents with respect to the distribution of focus adverbs, (305). This contrast was noticed in Iatridou and Embick (1994).

(305) a. i. Even if she had been allergic to dill, he would (still) have served the stuffed grape leaves
ii. Only if Peter had come would Susan have left
b. i. * Only had I thought that he was sick would I have called him
ii. ? Even had Joe served truffles Kathy would not have been happy.

(Iatridou and Embick, 1994, ex. 20-21)

In Iatridou and Embick's (1994) account, the impossibility of having focus adverbs in inverted conditionals is a consequence of the hypothesis that inversion in conditionals signals that the antecedent proposition is old information. They argue that old information cannot be focused and, since in inverted antecedents the antecedent proposition is old information, inverted antecedents do not allow focus adverbs.

Horn (2000b) takes up Iatridou and Embick's (1994) observation regarding focus adverbs but explains it in a different way. Horn makes a distinction between *only* (not good with inverted conditionals) and *even* (good with inverted conditionals) (see (307c) below). He characterizes the interpretation of uninverted antecedents with *even* and *only* as below in (306).

(306) a. In **Only if P, Q**, the truth of P is a necessary condition for the truth of Q.
b. In **Even if P, Q**, the truth of P is irrelevant to the truth of Q.

Horn claims that, in **Only if P, Q**, P cannot be backgrounded and thus it does not allow inversion. However, in **Even if P, Q**, P can be backgrounded, since the truth value of the antecedent is irrelevant for the truth value of the entire clause. In this case, inversion is allowed. In sum, Horn's explanation of the inversion facts is that "antecedents which constitute necessary or sufficient conditions (as in (307a) and (307b) respectively) appear only in canonical form; antecedents whose truth-value is either irrelevant or established as false (as in (307c) and (307d) respectively) [which can be backgrounded] can be reduced and inverted" (Horn, 2000b, pg. 157).

(307) a. * Only had this match been struck, it would have lit

b. * Is this match struck, it will light [i.e. If the match is struck, it will light]

c. Even had this match been struck, it (still) wouldn't have lit (Goodman 1947)

d. Had this match been struck, it would have lit

Notice that Horn's take on inversion is slightly different from that of Iatridou and Embick (1994). Horn does not claim that having a focus particle is impossible because the antecedent is old information and focus particles cannot associate with all information. Indeed, he assumes that *even* can be present even when there is inversion, (307c). Horn's (2000b) proposal takes into account the semantics of the focus adverbs to explain the data in (307). In his view, a focus particle can scope over a given proposition (see also Schwarzschild 1999 for similar predictions).

In summary, the problem with focus adverbs is not why they are not possible in inverted conditionals. The actual question is why some are licensed but others are not. Horn (2000b) provides us with a pragmatic explanation for the contrasts. Regardless of whether we want to adopt Horn's (2000b) account or not, the fact is that inverted conditionals do allow focus adverbs, as we have seen with *even*. Hence, even if we were to accept Iatridou and Embick's (1994) proposal that inverted antecedents represent *old information*, it would not follow that old information cannot be focused. I have nothing to add to the distinction between *only* and *even* in this dissertation. The question remains open for future research.

I will not follow Iatridou and Embick (1994) in deriving that inverted antecedents cannot be focused. However, the claim that inverted conditionals can be focused seems to be in conflict with other empirical facts presented in Iatridou and Embick (1994). These authors indicate that inverted antecedents are not possible in specific focus constructions such as answers to questions and clefts. I turn to these data in the next section.

6.3.4 Question/answer pairs and clefts

By claiming that the antecedent of an inverted conditionals cannot be focused, Iatridou and Embick (1994) predict that inverted antecedents cannot be answers to questions and that they cannot be clefted.

They offer the data in (308) to illustrate differences between regular conditional antecedents and inverted conditional antecedents. On the basis of the data in (308), they claim that regular antecedents can serve as answers to questions whereas inverted antecedents cannot.[20]

(308) A: When/Under what circumstances would Mary have come?

[20]Both utterances by B are understood to have final falling intonation.

B: If she had been offered many artichokes

B': #Had she been offered many artichokes

(Iatridou and Embick, 1994, ex. (31))

Question/answer pairs are often used to identify sentence focus.[21] The proposition embedded under the question operator is the topic and the constituent giving value to the variable (wh-phrase) in the question is the focus. Since regular conditional antecedents can work as answers to questions, Iatridou and Embick take it to mean that regular conditional antecedents can be focused. They argue, by looking at (308), that inverted conditional antecedents are not answers to questions. They take this as evidence that they cannot be focussed.

Notice that the data in (308) above indicates that (308B) is good as an answer to a question with final falling intonation and (308B') is bad. However, (308B') becomes much better once we spell out the consequent.

(309) A: When/Under what circumstances would Mary have come?

B": Had she been offered many artichokes, she would have come

The fact that (308B') becomes much better with the consequent spelled out indicates that what goes wrong in (308B') is not inversion in relation to focus. Furthermore, notice that the consequent in (309B") is heavily de-accented, indicating that the presence of the consequent does not obey information structure constraints: the consequent is not there for reasons of information structuring reasons but rather for morphosyntactic ones.

If we change the discourse conditions in which an inverted conditional is uttered as a response to a question, and spell out the consequent, it becomes completely fine:

(310) A: We need to find out what we did wrong with Mary, so we do not repeat the same mistakes with the next job candidate and again have our job offer turned down.

B: Hum! We did not offer Mary things that she would consider attractive.

A: Yeah! We did not made her a very attractive offer. Mary loves artichokes. I wonder whether that would have made a difference.

B: Let's write these things down. Under what circumstances would Mary have come?

---

[21] Iatridou and Embick (1994) are not explicit regarding what they understand as focus. I am making as safe an assumption as possible. Let's just understand sentence focus in opposition to sentence topic. There are constructions in which a certain constituent is marked as focused, as in answers to questions, in which the focus of the answer must correspond to the wh-phrase of the question, or in clefts, in which focus corresponds with the clefted phrase.

A: Well, had she been offered many artichokes, she would have come.

As predicted by my proposal regarding the meaning of inversion in conditionals, when changing the discourse conditions in which the inverted antecedent is spelled out (entertaining the antecedent proposition beforehand), the utterance of the inverted conditional is fine.

The discussion above indicates that the impossibility of conditionals in which there is subject-auxiliary inversion of standing on their own is syntactic. The evidence suggests that it has nothing to do with focal properties. Indeed, even when we have a focus adverb, as in (307c), the conditional is not accepted if the consequent is not present, (311).

(311) *Even had this match been struck

The claim that the crucial factor regarding the impossibility of (308B') is syntactic is supported by the cleft data:

(312) a. It is if John had come that Mary would have left
b. *It is had John come that Mary would have left

(Iatridou and Embick, 1994, ex. (27))

Clefting the antecedent of a regular conditional is fine, but clefting an inverted antecedent is not. Iatridou and Embick argue that this supports their claim that inverted antecedents cannot be focused.

However, I have argued above that (308B') and (309B") illustrate a syntactic constraint concerning inverted conditionals (not present in non-inverted conditionals): the consequent must be syntactically present. Regular *if*-clauses are free standing constituents, whereas inverted antecedents need to be embedded in a larger structure. The cleft data in (312) are congruent with the claim that inverted antecedents need to be licensed by the overt presence of the consequent.

The fact that there is a difference between regular *if*-clauses and inverted antecedents with respect to their ability to stand alone holds not only in English, but also in German.

(313) A: When/Under what circumstances would Mary have come?
B: Wenn man ihr viele Artischocken angeboten hätte.
'If we had offered her artichokes'
B': #Hätte man ihr viele Artischocken angeboten
'Had we offered her more artichokes'

An explanation for this fact regarding inversion goes beyond the scope of this dissertation.

6.3.5 Conclusion

In this section I have argued that inversion in English conditional antecedents indicates that the antecedent proposition has been previously entertained in discourse and, more specifically, that it is GIVEN in Schwarzschild's (1999) terms. This claim amounts to saying that the choice between inverted and non-inverted conditionals is not merely a stylistic variation, as Iatridou and Embick (1994) already noticed. However, the current proposal is different from the proposal in Iatridou and Embick (1994), where it is argued that inversion in conditionals indicates that the antecedent proposition is known to be false, i.e. the truth value of the antecedent proposition is *old information*, and further argued that inverted conditionals show that *old information* cannot be focused. Iatridou and Embick arguments are based on the apparent impossibility of finding focus adverbs in inverted conditionals, and on the apparent impossibility of using inverted conditionals as answers to questions. In discussing the properties of inverted conditionals, I have pointed out that inverted antecedents can be focused and that they can serve as (partial) answers to questions. Thus, even if we could maintain that inversion in conditionals antecedents signals old information, it is not the case that inverted antecedents cannot be focused. Furthermore, inverted conditional antecedents also seem to be able to associate with certain focus adverbs like *even*. The question arises as to why they cannot associate with focus adverbs like *only*. I leave this question open here, but offer Horn's (2000b) proposal as a possible solution. Finally, I have proposed to account for differences between inverted and non-inverted antecedents by appealing to syntactic constraints.

6.4 Why inversion?

The proposal made in this chapter differs from the view in Horn (2000b). However, it is still interesting to see what Horn says about why inversion signals a (pragmatic) presupposition.

> "As to why inversion SHOULD mark pragmatic presupposition, a natural functional speculation would depict non-canonical word order as a signal of non-asserted clausal material, whether it may be interrogative, exclamative, or (as here) presupposed."
>
> (Horn, 2000b, pg. 157)

Inversion in conditional antecedents is an optional syntactic operation and carries a meaning. It is not strange for natural language to perform an operation on an auxiliary to mark some kind of pragmatic meaning. We know that to reinforce the truth of a proposition we place a pitch accent on the auxiliary and achieve verum focus (see e.g. Romero and Han 2004).

(314) Yes, I DO like movies.

In the case of verum focus, we mark focus by placing a pitch accent on the auxiliary. Thus, an operation on the auxiliary is a recognized way to mark the information status of an element in the clause.

In the case of inversion in conditional antecedents, we find something of the same nature: doing something to the auxiliary is a mechanism to mark the status of the information in some way. In the case of inverted antecedents, it is a mechanism to mark the antecedent proposition as GIVEN.

At the same time, auxiliary inversion is an operation in which something is moved to the front (the auxiliary). This goes well with what we know about languages like English. The same way there is a tendency to mark new information by placing it at the back, we mark given information by pushing it to the front. Inversion in conditional antecedents is not the only operation of this sort. Framing adverbs and topicalization operations involve locating elements at the front too. As a matter of fact, it seems that it is a feature of languages in which the verb follows the subject to mark old information by placing constituents at the front (Ward and Birner, 2004, footnote 1). If placing old information at the front is part of the language's strategies marking the information status of the constituents, then we would expect the meaning of inversion to be derived from it. When there are two possible orders and truth-conditionally they are the same, as in the case of inverted and non-inverted conditional antecedents, they are expected to be distinguished by the status of information of the constituents. (This is not the case in questions, in which there is also movement to the front, and its no-movement parallel. Truth-conditionally, questions differ from its assertive counterpart, and thus the difference between the two structures is not expected to be found on the informational status of the constituents.)

In sum, the fact that inversion in conditional antecedents indicates that the antecedent proposition has been entertained may fall out from general principles of the language related to word order. However, at this point I resolve this issue. Movement from T to C in conditional antecedents conveys this meaning in several languages such as Spanish and English, and maybe an appropriate answer could start by observing what is similar in these languages. Indeed, based on what we know about these languages, if an operation is meant to carry this meaning, movement from T to C is a perfect candidate, since it goes well with what we know about how these languages mark the information status of sentence constituents.

6.5 Conclusion

In this chapter I addressed a characteristic property of HPCs: they have a sense of obviousness and are usually rude. I explained this in terms of the effects of inversion in HPCs. I argued that inversion in conditionals indicates that the proposition in the antecedent has

been previously entertained (and in this sense is 'obvious'). I have provided an account of what this means in terms of the notion of GIVENNESS in Schwarzschild (1999). My proposal ties the non-canonical word order to the discourse status of the antecedent proposition, very much in the spirit of earlier literature that has tied non-canonical structures to discourse-markedness. The non-canonical order signals the marked status of a proposition as entailed by the previous discourse and gives us an understanding of why HPCs are usually understood as reproaches adding yet another dimension of the pragmatics of HPCs. I also mentioned that there is an arbitrariness (recognized in the literature) to the relation between inversion and the discourse status of a proposition. However, the link is found across several languages, raising the question of whether it would be possible to provide a principled account. In this chapter, the proposal for HPCs was extended to inversion in English conditionals. I reviewed earlier accounts for English and show that GIVENNESS can prove useful in understanding inversion in cases beyond Spanish. Schwarzschild's notion of GIVENNESS proves superior to accounts that tie inversion to knowledge in the common ground.

CHAPTER 7
CONCLUSION

7.1 Major findings

The focus of this dissertation has been the 'discourse-driven' construction of meaning. I have investigated various ways in which the interaction between syntax, semantics and discourse work together to give rise to meanings that cannot (straightforwardly) be accounted for in isolation from discourse. In terms of data, the focus has been on HPCs, a structure that I have argued is a type of conditional in Spanish. HPCs serve as ideal windows into the interaction between syntax, semantics and discourse. They are non-canonical structures, 'reduced' from the point of view of syntax (lacking inflectional projections). They give rise to a varied and rich range of meanings and allow us to see the importance of paying attention to the interaction between syntax, semantics and discourse to understand how meanings are constructed.

In investigating the structure of HPCs, I have argued that they are conditionals in which the consequent is never spelled out. I have linked the reduction in the structure to the absence of tense. I have accounted for the syntactic distribution of HPCs by treating them as properties of propositions. I have shown how this proposal is able to deal both with the characterization of HPCs as conditionals and with the limitations in their distribution. The hypothesis here is that reduction in the inflectional projection can license the phonological reduction of complex structures, allowing complex meanings to be associated with apparently small structures.

The antecedents in HPCs always undergo subject-auxiliary inversion. This is yet another feature that makes the structure of HPCs 'non-canonical'. I have tied the non-canonical word order to the discourse status of the antecedent proposition. I have followed insights found in Prince's work (amongst others) indicating that non-canonical structures often encode information about the discourse status of propositions. I have shown that in the case of HPCs the non-canonical (inverted) order signals the marked status of the antecedent proposition as entailed by the previous discourse. (I have expanded the discussion to show that this is the case in other types of conditionals too.)

The study of HPCs has allowed us to investigate the role of information structure in the interpretation of conditionals. Understanding how constructions conventionally indicate the place they occupy in discourse has proven crucial to understanding the extra-meanings found in HPCs. I have argued that the presence of a focus adverb in the antecedent of HPCs is

responsible for marking a reversal in the information structure commonly associated with conditionals: in HPCs the antecedent is identified as focus and the consequent as topic. I have shown that the reversal in topicality affects the discourse licensing conditions of HPCs and gives us insight into the meaning of 'desirability' associated with HPCs. I have expanded my analysis of HPCs into the domain of English optatives ,and provided a unified account of how desirability arises in both constructions. The claim is that it is possible to derive the modal flavor of desirability from the discourse conditions in which HPCs and optatives are licensed. My proposal analyzes the modal flavor as a pragmatic effect brought about by discourse structure. The solution is thus able to account for the modal meaning without speculating about silent LF operators encoding bouletic modality.

By taking into account the effects of a reduced syntactic structure, non-canonical word order, focus adverbs, information structure and discourse structure I have been able to account for a range of meanings associated with HPCs and optatives without appealing to ad-hoc conventionalization or operators. The interest of the project goes beyond Spanish HPCs. We have seen that similar proposals can be made for related constructions in other languages (e.g. inversion in English conditionals and English optatives). The broader interest arises because it is common in colloquial speech to find relatively 'small' syntactic structures playing complex semantic and discourse roles. The current proposal makes a contribution towards understanding the 'unorthodox' construction of meaning in such cases, showing that discourse structure and pragmatics plays a crucial role.

7.2 Future research

In this section I would like to offer a brief overview of some of the topics discussed in this dissertation that merit further research. This is meant as a preliminary indication of where future research would be important.

One of the observations made in this dissertation is that HPCs are special from the point of view of syntax. Indeed, the challenge posed by HPCs is to account for their rich range of meaning on the basis of a relatively impoverished syntactic structure. The most notable way in which syntax is impoverished is the absence of the full inflectional projection usually associated with main clauses in Spanish. In HPCs we find tenseless clauses as main clauses, and this is not usually permitted in Spanish. One important area of future research would be to further explore the semantic and pragmatic effects associated with tenseless clauses and other impoverished structures. In Biezma (2008a) I proposed an analysis of Spanish imperatives as reduced clauses that carry special pragmatic force. In the case of HPCs, we have also observed that the non-canonical phrase structure patterns together with (relatively) non-canonical interpretations. It may be that structures which are impoverished from a syntactic point of view can achieve a greater range of pragmatic meanings and are able to play a more varied number of roles in discourse. One could speculate that such

impoverished structures are more flexible, and can be more easily coerced to play roles defined on the basis of discourse goals.

In this dissertation we have seen a proposal according to which HPCs denote properties of propositions. According to this proposal, the consequent proposition in an HPCis identified by means of a propositional variable that is abstracted over, generating a property. I have suggested in this dissertation that such structures are possible when the context provides a salient proposition/allows for the accommodation of a proposition that this property can be predicated of. The result is that it is possible to associate the whole HPCwith a proposition. I consider this kind of case an example of coercion, since it is possible to 'reconstruct' a proposition-level meaning on the basis of the property of propositions meaning corresponding to the HPC. Future research will be necessary in order to explore other cases of coercion and link non-standard clauses to non-standard meanings.

APPENDIX A
MATERIALS EXPERIMENT 1: HPCS ARE TIED TO DESIRES

Experimental materials

1. Decides ir de compras sin esperar a tu hermana, que sólo podía ir mañana o pasado, porque estás impaciente por comprarte un traje. Llegas a casa y, mientras le cuentas a tu hermana tus compras, en la radio anuncian que mañana, y sólo mañana, la tienda donde te acabas de comprar el traje va a hacer 50% de descuento en todos los artículos.

   TÚ: Podría haberme ahorrado el 50%

   HERMANA: Haberme esperado hasta mañana

   HERMANA: Haberme esperado hasta pasado mañana

2. Los exámenes son mañana, pero el verano no ha sido de mucho estudio, pese a que tu madre te ha machacado todos los días para que estudies sin que eso significara que no pudieras salir: tu madre sabe que tú necesitas salir de vez en cuando para poder estudiar, porque si no tú no te concentras. Ahora estás aterrorizado.

   TÚ: Me parece que voy a suspender

   MADRE: Haber estudiado más

   MADRE: Haberte encerrado todo el verano en casa a estudiar

3. Tu pareja quería que comprarais la mesa de caoba para el salón, porque sabéis que la de ébano, que os gusta a los dos, es muy difícil de limpiar. De todas formas, tú insististe en comprar la de roble y al final lo conseguiste. Ahora la miráis y te das cuenta de que la de caoba hubiera sido una elección mejor.

   TÚ: Realmente el roble no pega nada con el resto de los muebles

   PAREJA: Haber comprado la mesa de caoba

   PAREJA: Haber comprado la mesa de ébano

4. Estás con Susana perdido en un laberinto. Hay tres puertas, A, B y C, y sólo una lleva a la salida. Susana y tú sabéis que C no lleva a la salida, así que tienes que elegir entre A y B. Eliges A pero tampoco es la puerta correcta.

   TÚ: A no era la puerta correcta.

   SUSANA: Haber escogido B

   SUSANA: Haber escogido C

5. Estás en una heladería con tu madre, es casi la hora de cerrar y sólo les quedan tres sabores: pistacho, chocolate y vainilla. Es bien sabido por todos que tienes alergia al pistacho, así que tienes que elegir entre vainilla y chocolate y optas por el chocolate, pero cuando lo pruebas te das cuenta de que es un chocolate muy dulce (a ti te gusta amargo).

   TÚ: Este helado de chocolate es horrible.

   MADRE: Haber escogido vainilla

   MADRE: Haber escogido pistacho

6. Vas con Jose a comprarte unos zapatos para una boda este septiembre, pero según está el tiempo no sabes si comprarte unos zapatos de verano o de otoño. En la tienda sólo les quedan unas sandalías con las que tu amigo y tú sabéis que harías el ridículo más espantoso, unos zapatos cerrados de verano que no están mal, y unos de otoño que también son pasables. Te decides por los de otoño y el día de la boda hay 35 grados.

   TÚ: Se me van a cocer los pies.

   JOSE: Haberte comprado los zapatos de verano

   JOSE: Haberte comprado las sandalias

7. Vas con María al cine. Están echando 3 películas, una muy violenta de Tarantino, una que parece muy sentimentaloide con Julia Roberts que María querría ver y de la que tú no sabes nada, y una comedia que tiene una buena crítica en los periódicos. A María le gusta Tarantino, pero todos saben que tú te desmallas con la sangre, así que vais a ver la comedia porque tú confías más en que pueda ser buena. La película, pese a la crítica de los periódicos es un auténtico desastre.

   TÚ: ¡Qué horror de película!

MARÍA: Haberte decidido por la de Julia Roberts

MARÍA: Haber optado por Tarantino

8. A Roberto y a ti no os da tiempo a estudiar todo el temario para el examen final. Tienes que escoger entre el tema 10, 11 y 12. Los dos sabéis que es muy poco probable que el tema 10 caiga en el examen, el tema 11 es muy difícil y el tema es 12 más corto. Roberto tiene la intuición de que el tema 11 va a caer y decide estudiar ése. Tú prefieres estudiar el 12 pese a la recomendación de tu amigo. La mayor parte de las preguntas en el examen son del tema 11, sólo una cortita del 10 y ninguna del 12. Tú suspendes y Roberto saca un 8.5

   TÚ: Me pusieron un 0 en el examen.

   ROBERTO: Haber estudiado el tema 12

   ROBETO: Haber estudiado el tema 11

APPENDIX B

MATERIALS EXPERIMENT 2: OPTATIVES SETTLING FOR THE WEAKEST

Experimental items

1. There are many cab companies in the city, and they only differ in color (they all have the same speed/efficiency record). You did not take a cab to get to your meeting, and you were late. Now you are whining about it.

    a. If only I had taken a cab

    b. If only I had taken a red cab

2. Sam went for a walk on the mountain wearing only a T-shirt when it was below 32° F. As result of that he got pneumonia and he is whining about it.

    a. If only I had worn a coat

    b. If only I had worn a fur coat

3. Sam left an hour after he had planned to leave because he got entertained by a TV program. Now traffic is horrible because it is rush hour.

    a. If only I had left one hour earlier

    b. If only I had left two hours earlier

4. Rick wanted to park as close as possible to downtown at 1:00 pm (he needs to do some chores and expects to leave at 2:30 pm). He parked on the first street considered downtown. That day there was a parade and traffic was prohibited in the downtown area from 2:00 pm until 3:00 pm. Rick gets stuck, he is unable to move his car and he regrets having parked there.

    a. If only I had parked one block away

    b. If only I had parked four blocks away

5. Jim could not visit the Vatican because he was not allowed to access the building wearing shorts. He is regretting that he decided to wear shorts that day and whining about it.

    a. If only I had worn long pants that day

    b. If only I had worn long silk pants that day

6. Bill invited his in-laws for dinner and wanted to impress them. He prepared some nice salads and delicious meat. However, during dinner he found out that the only way his mother in-law eats meat is if it is accompanied by avocado. The woman did not eat anything and now Bill is whining about the disappointing dinner.

    a. If only I had bought avocados

    b. If only I had bought Brazilian avocados

APPENDIX C
MATERIALS EXPERIMENT 3: SPANISH CONDITIONALS

Experimental items

1. Le estas contando a tu amigo Juan que no habías estudiado todos los temas del curso para el examen final, y que has suspendido por muy poco.

   JUAN: ¿Qué hubieras tenido que pasar para que aprobaras el examen?

   TÚ:

   i. Si sólo hubiera mirado el último tema, habría podido aprobar

   ii. Si sólo hubiera mirado el último tema

   iii. Si hubiera mirado el último tema

2. Llevas mucho tiempo tratando de comprar muebles para tu salón sin ningún éxisto. Le estás contando a Fran que hoy vas a ir ver los muebles a una tienda que te han recomendado unos amigos que aparentemente tiene muy buenos precios.

   FRAN: ¿Qué tiene que pasar para que te compraras los muebles?

   TÚ:

   i. Si sólo los muebles me costaran menos de 400 euros, me compraría finalmente los malditos muebles

   ii. Si sólo los muebles me costaran menos de 400 euros

   iii. Si los muebles me costaran menos de 400 euros

3. Le estás contando a Juan que el pasado fin se semana ibas a visitar a tu pareja a París pero al final los planes se fueron al traste.

   JUAN: ¿Cómo hubieras conseguido ir a París?

   TÚ:

   i. Si sólo los billetes de avión hubieran sido más baratos, hubiera podido ir a París

   ii. Si sólo los billetes de avión hubieran sido más baratos

   iii. Si los billetes de avión hubieran sido más baratos

4. Tu padre está enfadado contigo porque te prestó el coche un par de días y has tenido un accidente, del que no tuviste la culpa, y lo has dejado para el desguace.

   JUAN: ¿Cómo vas a arreglar las cosas con tu padre?

   TÚ:

   i. Si sólo le hiciera entender que no fue culpa mía, las cosas irían mejor

   ii. Si sólo le hiciera entender que no fue culpa mía

   iii. Si le hiciera entender que no fue culpa mía

5. Le estás contando a Isabel que ibas a llegar a tiempo a coger el autobús, pero al final lo perdiste.

   ISABEL: ¿Qué tendría que haber pasado para que llegaras al autobús?

   TÚ:

   i. Si sólo los zapatos hubieran estado en su sitio, no habría perdido tiempo buscándolos

ii. Si sólo los zapatos hubieran estado en su sitio

iii. Si los zapatos hubieran estado en su sitio

6. Estás preparando una fiesta y estás pensando en los últimos detalles que hagan que sea un éxito.

TERESA: ¿Cómo coseguirás que la fiesta sea un éxito?

TÚ:

i. Si sólo consiguiera un buen DJ, la fiesta sería un éxito

ii. Si sólo consiguiera un buen DJ

iii. Si consiguiera un buen DJ

7. Le estás comentando a Juan que te perdiste de camino a la casa de tus amigos. Al final llegaste cuando todo había terminado.

JUAN: ¿Cómo hubieras llegado a tiempo?

TÚ:

i. Si sólo hubiera girado a la izquierda en el segundo cruce, no me hubiera perdido

ii. Si sólo hubiera girado a la izquierda en el segundo cruce

iii. Si hubiera girado a la izquierda en el segundo cruce

8. Tienes intención de reunirte con tus amigos para irte de fin de semana pero las cosas se están complicando y no sabes si vas a ser capaz de llegar.

JUAN: ¿Qué tiene que pasar para que te puedas ir de fin de semana?

TÚ:

i. Si sólo pudiera convencer a Jose de que me dejara el coche, podría irme
ii. Si sólo pudiera convencer a Jose de que me dejara el coche
iii. Si pudiera convencer a Jose de que me dejara el coche

APPENDIX D

MATERIALS EXPERIMENT 4: CONDITIONAL INVERSION AND REPROACHES

Experimental items

1. Juan le está contando a Antonio la historia de cuando intentó desconectar una bomba

   JUAN: Había dos cables, uno rojo y uno azul. Tenía que decidir y corté el azul, pero la bomba estalló.

   ANTONIO: ¡Qué le vamos a hacer! ¡Mala suerte!, yo habría hecho lo mismo, pero..., haber cortado el rojo.

   ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

   ¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

2. Sara podía escoger entre dos caminos para resolver el problema de matemáticas y era imposible saber cuál iba a ser más eficiente. El camino que escogió acabó siendo el más largo. Se lo está contando a Teresa.

   SARA: ¡El maldito problema me llevó una hora!

   TERESA: Bueno..., era imposible saberlo de antemano, haber escogido el otro camino..., pero... ¿quién podía prever que iba a ser así?

   ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

   ¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

3. Tomás y Raúl fueron a recoger el coche que la empresa les dejaba. Cuando llegaron al concesionario tenían para escoger entre uno blanco y uno amarillo. Tomás escogió el blanco y el coche les deja tirados en la carretera por un problema mecánico que traía de fábrica.

TOMÁS: ¡Maldita sea!, ¡sí que es mala suerte!

RAÚL: Estas cosas pasan..., haber escogido el amarillo..., pero ¿cómo podrías haberlo sabido?

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

4. Cristina y Pablo deciden ir al cine pero no saben qué película ver y no han leído las críticas de ningunas de las que hay en la cartelera. Entre Los cerezas felices y Sangre negra Cristina decide que la de las cerezas le da mejores vibraciones. A la salida descubren que Sangre negra era una comedia mientras que la suya acabó siendo un drama sangriento.

   CRISTINA: ¡Oh Dios santo! ¡Qué horror de película!

   PABLO: La verdad es que el título no hacía pensar en algo así, pero hoy en día los títulos no dicen nada..., haber escogido la otra..., mala suerte.

   ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

   ¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

5. Manolo le está contando a Susana lo que le ocurrió cuando trató de pedir comida en una pequeŰa cantina, en un pueblo perdido en China, sin saber lo que ponía en el menú. Cuando le sirvieron, vio que eran ranas

   MANOLO: ¡Aquello era asqueroso!

   SUSANA: ¡Puagh! Ja jaja, la verdad es que sin saber..., haber escogido otra cosa, pero..., ¿qué? Tú no sabes chino...

   ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

   ¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

6. Marcos necesita una asignatura de libre elección más para licenciarse en Matemáticas. De entre todas, Marcos decide escoger Teatro callejero, pensando que suena bien y que es algo distinto (no hay ninguna descripción que le ayude a escoger). La asignatura acaba siendo muy difícil, y le exige invertir un montón de tiempo.

MARCOS: ¿No te fastidia? Me lleva más tiempo

TOMÁS: Ja ja ja, haber escogido otra de la lista, pero la verdad es que era imposible pensar que esta asignatura fuese a ser tan difícil. Mala suerte.

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

7. Antonio está enfermo y le pide a su compaŰero de piso, Ramón, que se quede en casa hoy a ver el partido Barcelona-Madrid porque él está enfermo y no puede salir a verlo con sus amigos. Pero Ramón decide salir a verlo afuera. Ramón vuelve a casa

   RAMÓN: ¡No pude ver el partido! Había tanta gente en todos los bares que no pudimos entrar en ninguno.

   ANTONIO: Haberte quedado en casa a verlo conmigo.

   ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

   ¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

8. Carlos y Raúl están preparando la cena. Carlos le dice a Raúl que use la cacerola grande para poner a hervir la pasta, pero Raúl no la ve a simple vista y en vez de buscarla decide usar una mediana que ve por ahí. Cuando pone la pasta se da cuenta de que no hay suficiente espacio.

   RAÚL: ¡Mierda! Se van a pegar los spaghetti!

   CARLOS: Haber usado la cacerola grande

   ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

   ¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

9. María le dice a Ana que sería bueno que tratara de comprar los billetes para viajar en verano porque los precios van a subir pronto. Ana se preocupa demasiado y lo deja pasar. Dos semanas después, finalmente, decide comprar los billetes y están al doble de precio.

ANA: ¡Los billetes están carísimos! No voy a poder viajar.

MARÍA: Haber comprado los billetes antes.

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

10. Carlos está tratando de sacar la cena del horno sin usar nada para protegerse las manos.

CARLOS: ¡Mierda! ¡Me quemé!

SUSANA: ¡Pero hombre! ¡Haber usado las manoplas del horno!

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

11. Carlos ha cogido una neumonía tremenda porque salió a dar un paseo por la montaŰa en pleno invierno vistiendo sólo una camiseta de manga corta. Javier lo va a visitar.

CARLOS: Colega, tengo un catarro de espanto.

JAVIER: Pero hombre, ¡haberte puesto un abrigo!

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

12. Manuel aparca en doble fila enfrente de la panadería para entrar a comprar el pan. Cuando sale de la tienda un policía le está poniendo una multa.

MANUEL: Me puso una multa de 100 euros.

LIDIA: Pero hombre, ¡haber aparcado en otro sitio aunque no estuviera a la puerta!

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

¿Te parece que Antonio le echa la culpa a Juan de lo que ha pasado?

Controls

13. Juan no sabe nada de computadoras, y mientras trabajaba en casa con su ordenador le apareció un mensaje en la pantalla: el sistema operativo iba a colapsar a no ser que él hiciera algo. Como Juan no sabe nada de computadoras, no hace nada y el ordenador se apaga por completo. Lo lleva a la tienda, y el técnico le dice que la cosa no tiene posible reparación.

    JUAN: ¡Vaya por Dios! No supe qué hacer y ahora resulta que me tengo que comprar un ordenador nuevo.

    TÉCNICO: ¡Haber insertado el código ###4594#33INC##DF en el sistema operativo!

    ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

14. Raquel no va a trabajar el viernes y no le dice nada al jefe. A hurtadillas le pide a Roberto, quien trabaja en un departamento completamente distinto, que le cubra las espaldas. Raramente ocurre algo que necesite de ningún conocimiento específico y Raquel piensa que, simplemente, con que no se acumulen llamadas y mensajes nadie se va a enterar de su ausencia. Roberto puede encargarse de eso sin ningún problema. Pero justo ese día hay una emergencia que requiere una solución complicada que Roberto no conoce. La cosa acaba en que el jefe de Raquel tiene que intervenir, se descubre que Raquel no estaba en su puesto y ahora está en problemas.

    ROBERTO: Lamento que las cosas salieran mal y que ahora estés en problemas.

    RAQUEL: ¡Pero hombre! ¡Haber llamado a Juana Castillejo del Guadiana de la sección cuarta de Recursos del Solicitante! ¡Ahora no hay nada que hacer!

    ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

15. Cuando Enrique caminaba por la montaŰa descubrió a un excursionista caído, inconsciente, al pie de una roca, y sangrando. Enrique llama a emergencias y trata de taponar la hemorragia. Mientras espera ayuda, el excursionista deja de respirar y fallece.

    ENRIQUE: No pude hacer nada más...

MÉDICO DE EMERGENCIAS: Ha muerto por encharcamiento del pulmón. ¡Haberle hecho una incisión de 2.5 cm en el segundo espacio intercostal y haberle improvisado un drenaje! Si lo hubieras hecho no hubiera muerto

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

16. Alfredo va a buscar a su novia, Rebeca, al trabajo para salir a cenar. Cuando llega, Rebeca está histérica porque justo se le ha caído el café en la blusa blanca y está hecha un desastre.

ALFREDO: Supongo que tendremos que dejar la cena para otro día.

REBECA: ¡Haberme traído una camisa limpia de casa! Ahora tenemos que cancelar la cena.

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

17. Ricardo va a la boda de su hermana y compra una cámara digital para sacar fotos. Compra la cámara que el vendedor le asegura que es la mejor en la tienda, una Nikonia 666. él no sabe nada de cámaras y se fía del vendedor. La cámara se estropea después de 5 fotos, y su primo Daniel, que es fotógrafo se acerca.

RICARDO: ¡La maldita cámara se ha roto!

DANIEL: Pero hombre, ¿cómo se te ocurre comprar una Nikonia 666? ¡Haber comprado una Canonia 9000!

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

18. David tenía que hacer una conexión en el aeropuerto de Zurich, en el que nunca había estado antes. Cuando llegó al aeropuerto estuvo buscando una farmacia para conseguir un analgésico porque tenía un dolor de cabeza horrible, pero no tuvo suerte y tuvo que seguir las 10 horas de viaje que le restaban con el dolor de cabeza. Se lo cuenta a su amigo Ignacio, que trabaja en el aeropuerto de Zurich.

DAVID: Pues lo pasé fatal, no fui capaz de encontrar una farmacia en tu aeropuerto.

IGNACIO: ¡Pero hombre!, ¡haber ido a la teminal H al lado de la puerta de embarque 23! Allí está la farmacia del aeropuerto.

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

19. Juan ha organizado una fiesta en su nuevo apartamento para celebrar la mudanza. El apartamento es muy pequeŰo y sólo tiene espacio para 5 personas. Los cinco invitados tienen prohibido mencionar a nadie lo de la fiesta para que los no-invitados no se sientan ofendidos. Antonio, que está invitado, llega antes para ayudar con los últimos preparativos y le está contando a Juan que se acaba de encontrar con María (que no está invitada), de quien Antonio está completamente enamorado.

    ANTONIO: Me he encontrado con María hace un rato.

    JUAN: ¡Haberla invitado a la fiesta!

    ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

20. Ayer Ana tuvo un escape de agua de la caŰería del baŰo. Ana jamás había tenido que lidiar con este tipo de situaciones y no tenía ni idea de cómo solucionar el problema. Puso cubos, trató de poner trapos para tapar el escape..., probó todo lo que a una persona normal sin conocimientos profesionales de fontanería se le hubiese ocurrido, pero no hubo manera. Cuando los bomberos llegaron y pudieron parar el escape el piso del vecino ya tenía un daŰo considerable.

    ANA: Me fue imposible parar el escape.

    FONTANERO DE GUARDIA: ¡Pero seŰora! ¡Haber hecho una pasta de silicona-ultra y pegamento hidrófugo y haberla aplicado al escape! Ahora le ha formado un desastre al vecino de abajo.

    ¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

21. Viajando en coche por el desierto de Arizona, a Teresa, que no sabe nada de mecánica, se le estropeó el coche ya avanzada la tarde y tuvo que pasar la noche sola en el coche, en el medio de la nada, hasta que alguien pasó por allí al día siguiente. Ahora le está hablando al mecánico mexicano que le está arreglando el coche.

    TERSA: No hubo manera de poner el coche en marcha.

    MECÁNICO: ¡Pero mujer! ¡Haber usado una media para sujetar el engranaje de debajo del motor! ¡Era simple!

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

22. Nico acaba de empezar a jugar al ajedrez. Apenas sabe cuáles son los movimientos de las piezas. Pero le gusta practicar. Ayer jugó con Felipe y obviamente perdió. Se lo está contando a Carlos, que es campeón de EspaŰa de ajedrez, y le describe la partida como puede.

NICO: Y al llegar a esa situación no supe qué hacer para evitar que me ganara.

CARLOS: ¡Pero hombre! ¡Haber usado la defensa Rachmaninoviack III!

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

23. Felipe le dice a Juan que compre Sidra el Gaitero porque ésa es la única que le gusta y no aguanta ninguna otra. Juan va a la tienda pero no tienen Sidra el Gaitero. Tienen otras sidras pero, teniendo en cuenta las instrucciones de Felipe, no compra nada.

JUAN: No tenían Sidra el Gaitero, así que no compré nada.

FELIPE: ¡Pero hombre! ¡Haber comprado cualquier otra!

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

24. Para la charla de hoy, Andrés, el ponente, le dice a su secretario que haga fotocopias de 30 folletos para los asistentes, porque son los que piensa que van a asistir. Por alguna razón, cuando llegan a la sala de conferencias la sala está llena y hay más de 50 personas.

SECRETARIO: No vamos a tener suficientes folletos para todo el mundo.

ANDRÉS: ¡Pero hombre! ¡Haber hecho 50 fotocopias! Si hubieras hecho 50 fotocopias ahora tendríamos bastantes.

¿Te parece que, teniendo en cuenta el contexto, el diálogo anterior es aceptable?

BIBLIOGRAPHY

Abusch, Dorit. 1997. Sequence of tense and temporal *De Re*. *Linguistics and Philosophy* 20:1–50.

Anderson, Alan. 1951. A note on subjunctive and counterfactual conditionals. *Analysis* 12:35–38.

Arregui, Ana. 2004. On the accessibility of possible worlds. Doctoral Dissertation, University of Massachusetts Amherst, Amherst. GLSA publications.

Arregui, Ana. 2005. On the Role of the Perfect in *Would*-conditionals. *Proceedings of CLA* .

Arregui, Ana. 2007. When Aspect Matters: the Case of *Would*-conditionals. *Natural Language Semantics* 15:221–264.

Arregui, Ana. 2009. On similarity in counterfactuals. *Linguistics and Philosophy* .

Asher, Nicholas, and Alex Lascarides. 1998. Questions in dialogue. *Linguistics and Philosophy* 23:237–309.

Beaver, David I., and Brady Z. Clark. 2008. *Sense and Sensitivity: How focus determines meaning*. Malden, MA: Wiley-Blackwell.

Bhatt, Rajesh, and Roumiana Pancheva. 2006. Conditionals. In *The blackwell companion to syntax*, volume 1, 638–687. Oxford, England: Blackwell.

Biezma, María. 2008a. On the Consequences of Being Small: Imperatives in Spanish. In *Proceedings of North Eastern Linguistics Society 38th*. GLSA.

Biezma, María. 2008b. On the Interpretation of Pronouns in Spanish Imperatives. In *Proceedings of North Eastern Linguistics Society 38th*. GLSA.

Biezma, María. 2009. Inverted antecedents in hidden conditionals. In *Proceedings of North East Linguistics Society 40th*, ed. Seda Kan, Claire Moore-Cantwell, and Robert Staub.

Birner, B. J., and G. Ward. 1998. *Information status and noncanonical word order in english*. Amsterdam/Philadelphia: John Benjamins.

Birner, Betty. 2006. Inferential relations and noncanonical word order. In *Drawing the boundaries of meaning: Neo-gricean studies in pragmatics and semantics in honor of laurence r. horn*, ed. Gregory Ward Betty Birner, 31–51. Amsterdam: John Benjamins.

Bosque, Ignacio. 1980. Retrospective Imperatives. *Linguistic Inquiry* 11:415–419.

Büring, Daniel. 2003. On D-Trees, Beans, and B-Accents. *Linguistics & Philosophy* 26:511–545.

Chierchia, Gennaro, Danny Fox, and Benjamin Spector. 2008. The grammatical view of scalar implicatures and the relationship between semantics and pragmatics. In *Handbook of semantics*, ed. Klaus von Heusinger Claudia Maienborn and Paul Portner. New York, NY: Mouton de Gruyter.

Cornulier, Benoît. 1983. If and the presumption of exhaustivity. *Journal of Pragmatics* 7:247–249.

Dudman, V. H. 1984. Conditional interpretations of *If*-sentences. *Australian Journal of Linguistics* 4:143–204.

Ebert, Christian, Cornelia Endriss, and Stefan Hinterwimmer. 2008. A unified analysis of indicative and biscuit conditionals as topics. In *Proceedings of Semantics and Linguistic Theory 18*, ed. T Friedman and S Ito. Ithaca: Cornell University.

Enç, Murvet. 1987. Anchoring conditions for tense. *Linguistics and Philosophy* 18:633–657.

Endriss, Cornelia. 2009. *Quantificational topics: A scopal treatment of exceptional wide scope phenomena*. Studies in Linguistics & Philosophy. Springer.

Endriss, Cornelia, and Stefan Hinterwimmer. 2010. The interpretation of topical indefinites as direct and indirect aboutness topics.

Farkas, Donka, and Yoko Sugioka. 1983. Restrictive if/when clauses. *Linguistics & Philosophy* 6:225–2258.

von Fintel, Kai. 1994. Restrictions on quantifier domains. Doctoral Dissertation, University of Massachusetts Amherst.

von Fintel, Kai. 2001a. Conditional strengthening. Unpublished Manuscript, MIT.

von Fintel, Kai. 2001b. Counterfactual in a Dynamic Context. In *Ken hale: A Life in Language*, ed. Michael Kenstowicz, 123–152. Cambridge: MIT Press.

von Fintel, Kai, and Sabine Iatridou. 2005. What to Do if you Want to Go to Harlem: Anankastic Conditionals and Related Matters. *Ms.* .

von Fintel, Kai, and Sabine Iatridou. 2008. How to say *Ought* in Foreign: the Composition of Weak Necessity Modals. In *Time and Modality*, ed. J. Guéron and J. Lecarme, 115–141. Springer.

Fox, Danny. 2006. Free choice and the theory of scalar implicatures. Ms. MIT.

Geis, Michael, and Arnold Zwicky. 1971. On invited inferences. *Linguistic Inquiry* 2:561–566.

Geurts, Bart. 2005. Entertaining Alternatives: Disjunctions as modals. *Natural Language Semantics* 13:383–410.

Ginzburg, Jonathan. 1995. Resolving Questions, I. *Linguistics and Philosophy* 18:459–527.

Goodman, Nelson. 1947. The Problem of Counterfactual Conditionals. In *Conditionals*, ed. F. Jackson, 9–27. New York (1991): Oxford University Press.

Grice, Paul. 1957. Meaning. In Grice (1989), 377–388. Reprinted as Chapter 14 of Grice (1989).

Grice, Paul. 1989. *Studies in the way of words*. Cabridge, MA: Harvard University Press.

Groenendijk, Jeroen, and Martin Stokhof. 1984. *Studies in the Semantics of Questions and the Pragmatics of Answers*. Ph.D. Thesis: University of Amsterdam.

Groenendijk, Jeroen, and Martin Stokhof. 1997. Questions. In *Handbook of logic and language*, ed. Johan van Benthem and Alice Ter Meulen, 1055–1124. Cambridge, MA: MIT press.

Gunlogson, Christine. 2001. *True to Form: Rising and Falling Declaratives as Questions in English*. New York, London: Rutledge.

Gunlogson, Christine. 2008. A question of commitment. *Belgian Journal of Linguistics* 22:101–136.

Haegeman, Liliane. 1984. Remarks on adverbial clauses and definite NP-anaphora. *Linguistic Inquiry* 15:712–715.

Haegeman, Liliane. 2003a. Conditional clauses: external and internal syntax. *Mind & Language* 18:317–339.

Haegeman, Liliane. 2003b. Notes on long adverbial fronting in English and the left periphery. *Linguistic Inquiry* 34:640–649.

Haegeman, Liliane. 2006. Conditionals, factives and the left periphery. *Lingua* 116:1651–1669.

Haiman, John. 1978. Conditionals are topics. *Language* 54:564–589.

Halliday, M. A. K. 1967. Notes on transitivity and theme in English (part 2). *Journal of Linguistics* 3:199–244.

Hamblin, C. L. 1973. Questions in montague english. *Foundations of Language* 10:41–53.

Hamblin, Charles Leonard. 1958. Questions. *Australian Journal of Philosophy* 36:159–168.

Han, Chung-Hye. 2000. *The structure and interpretation of imperatives: Mood and force in universal grammar*. Series in Outstanding Dissertations in Linguistics. New York: Garland Publisher/Rutledge.

Heim, Irene. 1982. The semantics of definite and indefinite Noun Phrases. Doctoral Dissertation, University of Massachusetts, Amherst.

Heim, Irene. 1992. Presupposition Projection and the Semantics of Attitude Verbs. *Journal of Semantics* 9:183–221.

Higginbotham, James, and Robert May. 1981. Questions, quantifiers, and crossing. *Linguistic Review* 1:41–79.

Hinterwimmer, Stefan. 2007. In *NELS 37: Proceedings of the North East Linguistics Conference*, ed. Emily Elfner and Martin Walkow. UMass Amherst: GLSA.

Horn, Lawrence. 2000a. From *if* to *iff*: Conditional perfectoin as pragmatic strengthening. *Journal of Pragmatics* 32:289–326.

Horn, Lawrence. 2000b. Pick a Theory (Not Just Any Theory). In *Negation and Polarity*, ed. Lawrence Horn and Yasuhiko Kato, 147–192. New York: Oxford Univerisity Press.

Iatridou, Sabine. 2000. The Grammatical Ingredients of Counterfactuality. *Linguistic Inquiry* 31:231–280.

Iatridou, Sabine, Elena Anagnostopoulou, and Roumyana Izvorsky. 2001. Observations about the Form and Meaning of the Perfect. In *Ken Hale: A Life in Language*, ed. Michael Kenstowicz, 189–238. Cambridge, Massachusetts: MIT Press.

Iatridou, Sabine, and David Embick. 1994. Conditional Inversion. In *North Eastern Linguistic Society* 24^{th}, 189–203. UMass, Amherst: GLSA.

Kadmon, Nirit. 2001. *Formal pragmatics: Semantics, pragmatics, presupposition, and focus*. Oxford: Blackwell Publishers.

Kamp, Hans. 1973. Free Choice Permission. In *Proceedings of the Aristotelian Society*, volume 74, 57–74.

Kamp, Hans. 1978. Semantics versus Pragmatics. In *Formals Semantics and Pragmatics for Natural Languages*, ed. F. Guenthner and S. J. Schmidt, 255–287. Dordrecht: Reidel.

Karttunen, Lauri. 1976. Discourse referents. In *Syntax and semantics 7: Notes from the linguistic underground*, ed. James McCawley, 363–385. New York: Academic Press.

Karttunen, Lauri. 1977. Syntax and Semantics of Questions. *Linguistics & Philosophy* 1:3–44.

Kasper, Walter. 1992. Presuppositions, composition, and simple subjunctives. *Journal of Semantics* 307–331.

Kayne, Richard S. 1991. Romance clitics, Verb movement, and PRO. *Linguistic Inquiry* 22:647–686.

Kratzer, Angelika. 1977. What 'must' and 'can' must and can mean. *Linguistics and Philosophy* 1:337–355.

Kratzer, Angelika. 1998. More Structural Analogies Between Pronouns and tenses. In *Semantics and linguistic theory 8*, ed. D. Strolovitch and A. Lawson. Ithaca: CLC Publications.

Kusumoto, Kiyomi. 1998. Tense in embedded contexts. Doctoral Dissertation, University of Massachusetts Amherst, Amherst.

Ladd, Robert D. 1981. A first look at the semantics and pragmatics of negative questions and tag questions. In *CLS 17*, 164–171. Chicago: Chicago Linguistics Society.

Lahiri, Utpal. 2002. *Questions and answers in embedded contexts*. Oxford University Press.

Lambrecht. 1994. *Information Structure and Sentence Form*. Cambridge: Cambridge University Press.

Lewis, David. 1973. *Counterfactuals*. Oxford: Basil Blackwell.

Lewis, David. 1975. Adverbs of quantification. In *Formal semantics of natural language*, ed. Edward L. Keenan. Cambirdge University Press.

Lewis, David. 1979. A Problem about Permission. In *Essays in Honor of Jaakko Hintikka*, ed. E. Saarinen and al. Dordrecht: Reidel.

Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.

Ogihara, T. 1996. *Tense, attitudes, and scope*. Dordrecht: Kluwer Academic Publishers.

Partee, Barbara. 1973. Some structural analogies between tense and pronouns. *The Journal of Philosophy* 70:601–609.

Pesetsky, David. 1989. Language Particular Processes and the Earliness Principle. Ms. MIT.

Portner, Paul. 2004. The semantics of imperatives within a theory of clause types. In *Proceedings of semantics and linguistic theory 14*, ed. K. Watanabe and R. B. Young. Cornell University Linguistics Department: CLC Publications.

Prince, Ellen. 1981. Toward a Taxonomy of Given-New information. In *Radical pragmatics*, ed. P. Cole, 223–256. New York: Academic Press.

Prince, Ellen F. 1992. The ZPG letter: Subjects, definiteness and information structure. In *Discourse description: Diverse analyses of a fundraising text*, ed. William Mann Sandra Thompson, 295–325. Philadelphia: John Benjamins.

Prince, Ellen F. 1996. Constructions and the syntax-discourse interface. Ms., UPenn.

Rawlins, Kyle. 2008. (Un)conditionals: an investigation in the syntax and semantics of conditional structures. Doctoral Dissertation, University of California Santa Cruz, Santa Cruz. Ms.

Reinhart, Tanya. 1981. Pragmatics and linguistics: An analysis of sentence topics. *Philosophica* 27:53–94.

Repp, Sophie. 2010. Relevance topics. In *Proceedings of Sinn und Bedeutung 15*.

Rifkin, Jay I. 2000. If only *if only* were if plus only. In *CLS 36*, 369–383. Chicago, Il: Chicago Linguistics Society.

Rivero, María Luisa, and Arhonto Terzi. 1995. Imperatives, v-movement and logical mood. *Journal of Linguistics* 301–332.

Roberts, Craige. 1996. Information Structure in Discourse: Towards an Integrated Formal Theory of Pragmatics. In *OSU Working papers in linguistics 49: papers in semantics*, 91–136.

Roberts, Craige. 2004. Context in dynamic interpretation. In *Handbook of pragmatics*, ed. Larry Horn and Gregory Ward, 220. Oxford: Blackwell.

Romero, Maribel, and Chung-Hye Han. 2004. On Negative Yes-No Questions. *Linguistics and Philosophy* 27:609–658.

Rooth, Mats. 1992. Ellipsis redundancy and reduction redundancy. In *Proceedings of the stuttgart ellipsis workshop*.

van Rooy, Robert. 2000. Permission toChange. *Journal of Semantics* 17:119–145.

Saebø, K. J. 1986. Notwendige Bedingungen im Deutschen. Zur Semantik modalisierter Sätze. In *Papiere des sonderforschungsbereichs 99*. University of Constance.

Saebø, K. J. 2001. Necessary Condition in a Natural Language. 427–449. Berlin: Academy Verlag.

Schwager, Magdalena. 2006. Interpreting imperatives. Doctoral Dissertation, University of Frankfurt.

Schwager, Magdalena. forthcoming. Imperatives and Tense.

Schwarzschild, Roger. 1999. Givenness, AVOIDF and Other Constraints on the Placement of Accent. *Natural Language Semantics* 7:141–177.

Speas, Margaret. 2004a. Evidential paradigms, world variable and person agreement features. In *Special issue of the italian journal of linguistics*, ed. S. Safir and V Bianchi, volume 16, 253–280.

Speas, Margaret. 2004b. Evidentiality, logophoricity, and the syntactic representation of pragmatic featrues. *Lingua* 114:255–277.

Stalnaker, Robert. 1978. Assertion. In *Pragmatics*, 315–332. New York: Academic Press.

Stalnaker, Robert. 1991. Pragmatic presuppositions. In *Pragmatics: a reader*, ed. Steven Davis, 471–482. New York: Oxford University Press. Reprinted from *Semantics and Philosophy (1974), eds. Milton K. Munitz and Peter K. Unger, New York University Press, NY.*

Stalnaker, Robert. 1998. On the Representation of Context. *Journal of Logic, Language, and Information* 7:3–19.

Stalnaker, Robert. 2002. Common Ground. *Linguistics and Philosophy* 25:701–721.

von Stechow, Arnim. 1989. Focusing and backgrounding operators. *Arbeitspapier* 6.

Stowell, Tim. 1996. The phrase structure of tense. In *Phrase structure and the lexicon*, ed. J. Rooryck and L. Zaring, 277Ð–291. Dordrecht: Kluwer.

Strawson, P. F. 1964. Identifying reference and truth values. *Theoria* 30:96–118.

Veltman, Frank. 2005. Making counterfactual assumptions. *Journal of Semantics* 22:159–180.

Ward, Gregory, and Betty Birner. 1995. Definiteness and the English existential. *Language* 71:722–742.

Ward, Gregory, and Betty Birner. 2004. Information structure and non-canonical syntax. In *The handbook of pragmatics*, ed. Kawrence R. Horn and Gregory Ward. Malden, MA: Blackwell Publishing.

von Wright, G.H. 1963. *Norm and action*. London: Routledge.

Zagona, Karen. 1995. Temporal argument structure: Configurational elements of construal.

Zimmermann, Thomas Ed. 2000. Free Choice Disjunction and Epistemic Possibility. *Natural Language Semantics* 8:255–290.