Part I

From Sentence to Discourse

On the temporal orientation of intensional subjunctives in Spanish

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According to a distinction originally formulated by Stowell (1993) and subsequently exploited by Quer (1998, 2006), "intensional" subjunctives—as opposed to "polarity" subjunctives—are lexically selected by some semantic classes of matrix predicates which also impose a particular temporal orientation on their argument clauses. Careful examination of the licit temporal configurations for intensional subjunctive clauses in Spanish shows, however, that they do not conform to a uniform pattern: in particular, the argument clauses of volitionals deviate in manifold ways from the expected temporal orientation and give rise in some cases to interpretive effects that parallel those found with modal verbs. In this chapter, I explore the possibility of accounting for the behavior of volitionals by exploiting their double nature as evaluative propositional attitudes (attitudes of preference) and as dispositions to act (Kenny 1963; Heim 1992; Portner 1997).

2.1 Intensional versus polarity subjunctives

The distribution of intensional and polarity subjunctives roughly corresponds to the difference between semantic selection and licensing of a dependent element. Certain matrix predicates require subjunctive mood in their argument clauses because of their semantics—which determines, among other things, what sort of syntactic-semantic objects they may combine with. But the subjunctive may also appear—in argument clauses or in relative clauses—to signal scopal dependency of the clause in certain environments (essentially, downward entailing ones).

This distinction actually continues a much older distinction, that between an "optative" and a "dubitative" subjunctive. It seems, however, to rest on firmer ground

than its predecessor, since it is drawn on the basis of four clear-cut properties (Quer 1998, 2006),¹ which are briefly recalled below.

(a) Intensional subjunctives, by contrast with polarity subjunctives, do not alternate with indicatives, as shown in (1a, 1b):

(1)	a.	Quiere	que te vayas/	*vas.		
			that you go.pr.sbj.2sg./	go.pf	R.IND.28G	
		'S/he wants you to	leave.'			
	b.	No cree	que te vayas/		vas.	
		not believe.pr.IND.	3.SG that you go.pr.sbj.	28G./	go.pr.ind.2sg	
		'S/he does not believe that you are leaving.'				

(b) Secondly, intensional subjunctives do not "spread" to further embedded argument clauses, whereas polarity subjunctives license multiple subjunctive embedding:

(2) a. Quiere que digas que está/ *esté bien. want.PR.IND.3.SG that say.PR.SBJ.2SG that be.PR.IND.3SG/ be.PR.SBJ.3SG well 'S/he wants you to say that it's all right.'

b. *No cree que digas que está/ esté bien.* not believe.PR.IND.3.SG that say.PR.SBJ.2SG that be.PR.IND.3SG/be.PR.SBJ.3SG well 'S/he does not believe that you (will) say that it's all right.'

(c) Thirdly, intensional subjunctives give rise to subject obviation effects that are absent in the case of polarity subjunctives. Coreference between the matrix subject and the subject of the subjunctive clause is perfectly possible in the latter case, but seems excluded in the former:

(3)	a.	*Tratamos	de que	lleguemos	a tiemp	0.
		Try.pr.ind.1pl	of that	arrive.pr.sbj.1pl	on time	1
		*'We are trying	that we	arrive on time.'		
	b.	No estamos		seguros de que lleguemos		a tiempo.
		not be.pr.ind.1pl sure		of that arrive.pr.sbj.1pl		on time
		'We are not sure	e we will	arrive on time.'		

(d) Finally, the matrix predicates selecting for intensional subjunctives impose a particular temporal orientation on their argument clauses, which is not matched in

¹ Thanks to J. Guéron (p.c.) for pointing out some fundamental unclarities in the distinction between "intensional" and "polarity" subjunctives. Following Quer (2006), I tend to assume that they constitute two different categories, which may converge in the same morphology in some languages. The fact that some languages exhibit intensional subjunctives, but entirely lack polarity subjunctives, while other languages distinguish morphologically between both types, provides some evidence for this split. As for Spanish, some evidence from language acquisition and language attrition seems to point in the same direction (Lozano 1995).

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the case of polarity subjunctives. This temporal orientation is variously described as future or non-anterior, and is usually illustrated by the fact that intensional subjunctives may not exhibit past morphology if the matrix verb is in a present tense (4a), whereas this temporal configuration is licit in the case of polarity subjunctives (4b) (see Suñer and Padilla Rivera 1987/1990; Suñer 1990):

(4)	a. * <i>Exijo</i>	que estuviera	en casa.
	demand.pr.ind.1sg	that be.IMPF.SBJ.3SG	at home
	*'I demand that s/he	was at home.'	
	b. No creo que	que estuviera	en casa.
	not believe.pr.IND.150	G that be.IMPF.SBJ.3SG	at home
	'I don't think s/he wa	is at home.'	

The first two properties are quite robust, and they follow naturally from the assumption that intensional subjunctives are selected by the matrix predicate (selection being a local required fit). The third and fourth properties, by contrast, are less robust: they are known to vary in subtle ways according to several factors (Quer 1998, 2006). However, little attention has been devoted to the semantics of the matrix verbs as a factor in this variation. In this chapter, I will concentrate on the fourth property, trying to arrive at an explanation of the different patterns of temporal orientation that hold for different types of matrix verbs.²

2.2 The temporal orientation of matrix verbs selecting intensional subjunctives

According to Quer (1998), matrix verbs selecting for intensional subjunctives fall into three main classes:

(a) Directives, like exigir 'require', ordenar 'order', pedir 'ask', permitir 'allow', are primarily speech-act verbs that perform or report directive or permissive speech acts; some of them may be used—in particular with inanimate subjects—to express various flavors of non-epistemic necessity or possibility.

² J. Guéron (p.c.) reminds me of an example originally proposed by Nicolas Ruwet (see Quer 2006 for further references) that might show some degree of correlation between the third and fourth properties. In fact, obviation effects disappear in the French sentence *Je voudrais que je sois enterré dans mon pays natal* 'I would like it for me to be buried in my native country', in which the matrix verb carries conditional/ counterfactual morphology. This correlation is tantalizing in view of the possible influence of counterfactual morphology on the type of the complement clause, which will be discussed in Sections 2.3.2 and 2.4. However, the factors influencing obviation effects are complex and poorly described for Spanish, so that an examination of this correlation must be left for further research.

- (b) Causatives comprise positive and negative causation verbs, like *dejar* 'let', *hacer* 'make', *impedir* 'prevent', *obligar* 'force', and other verbs showing obligatory object-control, as well as verbs of the *try/manage* type. Most of them, but by far not all, are implicative or neg-implicative verbs.³
- (c) Volitionals form a large and quite heterogeneous class of verbs, which is probably best captured by Kenny's notion of *Volition*, reporting "the taking up of an attitude of approval to a state of affairs":⁴

The Volition that p will be something that is common to hoping that p, wanting it to be the case that p, wishing it were the case that p, being glad that p, intending to bring it about that p, regretting that *not-p*, being ashamed that *not-p*, fearing that not-p, and which is absent from merely judging that p, knowing that p, being certain that p, expecting that $p \dots$

(Kenny 1963: 151)

The argument clauses of these three classes of matrix verbs share a hitherto unnoticed distributional property: they cannot host prospective aspect, which is expressed in Spanish by the verbal periphrasis *ir* 'go' + *a* 'to' + *Infinitive* (roughly corresponding to the *be-going-to-*construction in English):

- (5) a. *Exige que el artículo vaya a tener veinte páginas. demand.PR.IND.3SG that the paper go.PR.SBJ.3SG to have twenty pages
 *'S/he demands that the paper be going to be twenty pages long.'
 - b. **Hizo* que el artículo fuera a tener veinte páginas. make.sp.IND.3sG that the paper go.IMPF.sBJ.3sG to have twenty pages ***'S/he got the paper to be going to be twenty pages long.'
 - c. *Quiero que el artículo vaya a tener veinte páginas want.PR.IND.1SG that the paper go.PR.SBJ.3SG to have twenty pages *'I want the paper to be going to be twenty pages long.'

Prospective aspect is, by contrast, perfectly acceptable in the case of polarity subjunctives:

(6) a. *No creo* que el artículo vaya a tener veinte páginas. not believe.PR.IND.1SG that the paper go.PR.SBJ.3SG to have twenty pages 'I don't think the paper is going to be twenty pages long.'

⁴ The quotation shows that Kenny also includes "attitudes of disapproval" in this class. I will only exemplify positive attitudes in this chapter, but it is easy to provide an analysis of their (negative polarity) antonyms (sometimes called "adversatives") by reversing the orderings in the semantic definitions in the quote from Kenny. As for the inclusion of emotive/evaluative-factives in the class, its motivation will be discussed in Section 2.4, but—for the sake of clarity—I will not adopt Kenny's proposal of calling them "volitionals."

³ Implicative verbs entail their argument clause, and their negation entails the falsity of the argument clause (Karttunen 1971). The fact that they take the subjunctive constitutes a serious problem for any account of the subjunctive based on non-factuality or non-veridicality. Neg-implicative verbs, by contrast, entail the falsity of their argument clause.

b. *Poca gente piensa* que el gobierno vaya a tener éxito. Few people think.PR.IND.3SG that the government go.PR.SBJ.3SG to have success 'Few people believe that the government is going to have any success.'

It is tempting to interpret the incompatibility of intensional subjunctives with prospective aspect as an indication of a future temporal orientation imposed by the matrix verbs. In fact, prospective aspect is also disallowed under (temporally interpreted) future morphology (7a), in imperative sentences (7b), and in purpose clauses (7c):

- (7) a. *El gobierno irá a tener éxito.
 the government go.FUT.IND.3SG to have success
 *'The government will be going to succeed.'
 - b. **Ve a venir a las tres.* go.IMP.2SG to come at the three *'Be going to come at three o'clock.'
 - c. **Esta nota está ahí para que la vaya a ver el cartero.* This note is there for that it go.pr.sbj.3sG to see the postman *'This note is there in order for the postman to be going to see it.'

As for temporally interpreted future morphology, it obviously shifts or expands the reference time forward. Purpose clauses and imperatives are also usually associated with future orientation. Therefore, it is arguably the same factor that may account for the exclusion of prospective aspect in all these environments.⁵ The incompatibility of these future-oriented environments with prospective aspect raises, however, a number of questions. It is a rather well-known fact that, cross-linguistically, "futures of the future" (the mirror image of pluperfects) are extremely rare, if at all attested. This may be interpreted in terms of a general constraint against configurations such as (8):

(8) Utt-T/T-matrix ____Reference Time___Event Time

Such a constraint could explain the exclusion of prospective aspect from environments such as the future in (7a) and the imperative in (7b), which are clearly monoclausal. But the environments (5a, 5b) and (7c) are biclausal environments. And future-oriented verbs embedding indicative complement clauses, such as *pronosticar* 'predict' are not only compatible with prospective aspect in the embedded clause, but may even require it:

(9) a. *#Pronostican que hay una catástrofe.* predict.PR.IND.3.PL that there-be.PR.IND.3.SG a catastrophe #'They predict that there is a catastrophe.'

 $^{^{5}}$ Ir+a+infinitive becomes possible in such environments in the presence of negation. In Bravo and Laca (2011) we argue that these are not cases of prospective aspect, but of an homophonous periphrasis with a scalar semantics that reinforces negation.

b. *Pronostican que va a haber una catástrofe.* predict.PR.IND.3.PL that go PR.IND.3.SG to there-be a catastrophe 'They predict that there is going to be a catastrophe.'

The temporal uniformity of directives, causatives and volitionals breaks down when retrospective/perfect aspect is taken into account. Retrospective aspect is expressed in Spanish by the compound tenses built with *haber* 'have' + *Past Participle*. In embedded clauses, the anteriority relation it contributes can be anchored to TMA-TRIX, thus giving rise to configurations with a **past** temporal orientation, in which the time of the embedded event description precedes TMATRIX. The presence of future adverbials or future temporal clauses, however, gives rise to future-perfect readings: the result state of the embedded event description is said to hold at the (future) time denoted by the adverbial, and the ensuing temporal orientation need not be **past** with regard to TMATRIX, since the time of the embedded event description may follow TMATRIX.⁶

The complement clauses of directives and causatives may host retrospective aspect, but only in the presence of future adverbials or temporal clauses that ensure future-perfect readings, and thus the possibility of a non-past temporal orientation:

- (10) a. Pide que hayamos completado el informe completed the ask.pr.ind.3sg that have.pr.sbj.1.pl report *(para el iueves/ (para) cuando vuelva). the when for thursday for return.pr.sb1.3sG 'S/he demands for us to have completed the report by Thursday/by the time s/he comes back.'
 - b. Consiguió el que hubieran completado manage.sp.ind.3sG that have.IMPF.SBJ.3PL completed the informe *(para el *jueves*). for report the thursday 'S/he managed to get them to complete the report by Thursday.'

Directives and causatives pattern in this respect like verbs imposing a future orientation on the infinitival clauses they embed:

(11) Promete haber completado el informe *(para el jueves). promise.PR.IND.3SG have completed the report for the thursday 'S/he promises to have completed the report by Thursday.'

By contrast, volitionals diverge from this pattern, and do so in ways that reveal the lack of homogeneity of this class of verbs. There is one volitional, *querer* 'want', whose behavior is close to that of directives and causatives with regard to

⁶ On the analysis of future perfect readings as resultatives, see Demirdache and Uribe-Etxeberria (2008).

retrospective aspect.⁷ The rest, however, also admit retrospective aspect in configurations which cannot but induce a **past** temporal orientation:

- informe *(para a. Quiere completado el (12)aue havamos that have.pr.sbj.1.pl completed the report for want.pr.IND.3SG el jueves/(para) cuando vuelva) the Thursday for when return.pr.sbj.3sg 'S/he wants us to have completed the report by Thursday/ by the time she comes back.'
 - b. ?*Quiere que Pedro se haya instalado en Madrid. want.pr.IND.3SG that Pedro REFL have.pr.SBJ.3.SG settled in Madrid. *'S/he wants Pedro to have settled in Madrid.'
- (13) a. ?Desea que Pedro se haya instalado en Madrid. wish.pr.IND.3SG that Pedro REFL have.pr.SBJ.3.SG settled in Madrid 'S/he wishes for Pedro to have settled in Madrid.'
 - b. *Espera* que Pedro se haya instalado en Madrid. hope.PR.IND.3SG that Pedro REFL have.PR.SBJ.3.SG settled in Madrid 'S/he hopes that Pedro has settled in Madrid.'

The temporal orientation of volitionals gives rise to a paradox that is well-known for modals. Modals are usually held to be forward-shifting environments (Enç 1996; Condoravdi 2001), but they can also embed perfect infinitives that give rise to past temporal orientation:

(14) Pedro debe/ puede haberse instalado en Madrid.
'Pedro must/may have settled in Madrid.'

In such configurations, modals receive an epistemic construal: the issue whether Pedro has settled or not in Madrid is decided at UTT-T, but the speaker does not know in which way it has been decided. An analogous condition holds for the felicitous use of volitionals such as *desear* 'wish, desire', *esperar* 'hope, expect' when embedding argument clauses with a past temporal orientation: thus, examples (13a, 13b) above convey that the subject of the attitude does not know whether Pedro has settled in Madrid or not. Laca (2010b) suggests that volitionals are subject to the same **diversity constraint** on modal bases that is operative in the case of modals: the modal base providing the background for interpretation should contain both worlds of which the embedded proposition holds and worlds of which it does not hold (Condoravdi 2001; Werner 2003). Since propositions with a past temporal orientation

⁷ Other verbs showing the same behavior are *anhelar* 'long for', *apetecer* 'feel like', *pretender* 'pretend'. They are even more clearly future-oriented than *querer*, since conditional morphology does not license past orientation in these cases.

are decided at the time of evaluation, only epistemic uncertainty warrants diversity in such cases. The diversity constraint has the status of a felicity condition, and can be motivated by the need to avoid the manifold logical anomalies that arise for nondiverse modal bases (cf. Heim 1992; Condoravdi 2001; Werner 2003).

The parallelism between the interpretive defaults associated with volitionals and modals stretches further. It is well-known that the temporal orientation of modals embedding simple infinitives varies according to the temporal structure (Vendlerian class) of the described situation. In English, simple eventive infinitives are forward-shifted, whereas stative infinitives can give rise to simultaneous or to forward-shifted interpretations. Forward-shifting correlates with deontic flavors of modality, whereas simultaneity correlates with epistemic readings, as illustrated by the two possible interpretations of (15):

- (15) The article must be twenty pages long.
 - (i) It is required that the article be twenty pages long.
 - (ii) It is inferrable that the article is twenty pages long.

An analogous pattern holds for those volitionals that are compatible with a past orientation: embedded stative descriptions can give rise to simultaneous or to forward-shifted readings, and simultaneous readings convey epistemic uncertainty:

(16) Pedro desea/espera que María esté en Madrid (ahora/mañana).
 Pedro wishes/hopes that María be.pr.sbj.3sg in Madrid (now/tomorrow)
 'Pedro wishes/ hopes for Maria to be in Madrid (now/tomorrow).'

By contrast, *querer* patterns like directives and causatives, in as far as it rules out a simultaneous temporal orientation:

- (17) a. **Pedro* quiere María esté Madrid. que ya en Pedro wants that María be.pr.sbj.3sg already in Madrid ?'Pedro wants Maria to be already in Madrid.'
 - b. **Pedro ordena que María esté ya en Madrid.* Pedro orders that María be.pr.sbj.3sg already in Madrid *'Pedro commands that Maria (should) be already in Madrid.'
 - c. *Pedro trata de aue María esté va en Madrid. Pedro tries of that María be.pr.sbj.3sg already in Madrid *'Pedro is trying for Maria to be already in Madrid.'

Thus, *querer* apparently shares with directives and causatives a stricter future orientation, which excludes both past and simultaneous construals. However, past and simultaneous construals become possible in the presence of counterfactual ("conditional") morphology on *querer*, while they are still ruled out for directives and causatives:

- (18) a. *Pedro querría que María se hubiera instalado en Madrid.* Pedro want.cond that María REFL have.IMPF.SBJ.3SG settled in Madrid 'Pedro would like Maria to have settled in Madrid.'
 - b. *Pedro querría que María estuviera ya en Madrid.* Pedro want.cond that María be.pr.sbj.3sg already in Madrid 'Pedro would like it for Maria to be already in Madrid.'
- (19) a. **Pedro ordenaría que María se hubiera instalado en Madrid.* Pedro order.cond that María REFL have.IMPF.SBJ.3SG settled in Madrid *'Pedro would order that Maria (should) have settled in Madrid.'
 - b. **Pedro ordenaría que María estuviera ya en Madrid.* Pedro order.cond that María be.pr.sbj.3sg already in Madrid *'Pedro would order that Maria (should) be already in Madrid.'

Table 2.1 summarizes our findings concerning the temporal orientation of intensional subjunctive clauses:

	Non-past matrix+past sbj	Prospective aspect	Past or simultaneous temporal orientation	Counterfactual morphology licensing past or simultaneous TO
causatives	_	_	_	_
directives	-	_	-	-
querer	-	-	-	+
other volitionals	-	_	+	does not apply

TABLE 2.1. Temporal orientation of intensional subjunctives

This distribution shown in Table 2.1 gives rise to the following questions:

- (i) What is the difference between directives and causatives, on the one hand, which show a uniform future temporal orientation, and volitionals, on the other hand, which show some symptoms of future temporal orientation but are nonetheless compatible with a past temporal orientation?
- (ii) What are the roots of the epistemic uncertainty felicity condition that holds for modals and for (most) volitionals in configurations imposing a simultaneous or a past temporal orientation, thus conveying that the issue is decided at UTT-T?
- (iii) Why is epistemic uncertainty as to a past issue not enough for rendering a past temporal orientation acceptable in the case of a verb like *querer*?
- (iv) Why does counterfactual morphology in this case, but not in the case of directives or causatives, lift the ban against past temporal orientation?

2.3 The semantics of volitionals

The formal semantics literature offers several concurrent approaches to the semantics of volitionals. Volitionals can be treated on a par with propositional attitude verbs, or they can be distinguished from them. The difference hinges on the type of semantic object that the argument clause of the volitional is assumed to denote.

2.3.1 Volitionals as attitudes of preference

In Heim's classical treatment of the semantics of attitude verbs (Heim 1992), the argument clause of a volitional is a proposition. However, the volitional does not express universal quantification over a set of accessible worlds corresponding to a bouletic modal base (the set of worlds compatible with the desires of the attitude bearer), as in the Hintikkian tradition, but orders the doxastic alternatives of the attitude bearer (i.e. the set of worlds compatible with his or her beliefs), ranking worlds that verify the proposition expressed in the argument clause higher than worlds that do not verify it:

(20) 'α wants φ' is true in w iff for every w' Dox_α (w): every φ-world maximally similar to w' is more desirable to α in w than any non-φ-world maximally similar to w' (Heim 1992: 193)

In the Kratzerian double-background approach to modality, this would amount to the combination of a doxastic modal base with a bouletic ordering source. Notice, however, that by contrast with modals, in which the ordering source contributes a further restriction to the domain of quantification, volitionals *assert* an ordering among worlds.⁸ The ordering source is part of the background for the interpretation of modals, while it is part of the truth-conditional, at-issue content of volitionals. As mentioned in Section 2.2, Laca (2010b) assumed that a diversity condition on modal bases is responsible for the readings of epistemic uncertainty that arise for volitionals and modals alike when the issue of the truth of the associated proposition is decided at the local time of evaluation (i.e. when the proposition has a past or simultaneous temporal orientation with regard to the time of the modal or to the time of the matrix). In Heim's framework, a condition to the same effect is captured by the assumption that volitionals carry a presupposition according to which the bearer of the attitude neither believes ϕ nor non- ϕ (Heim 1992: 198). This presupposition

⁸ In recent work by Villalta (2008), Condoravdi and Lauer (2009, 2010, 2011) and by Anand and Hacquard (2012), Heim's original proposal has been developed into different versions of preference semantics, which share a commitment to the difference between propositional "attitudes of acceptance" and "attitudes of preference." Although unifying volitionals and directives under the "attitudes of preference," these approaches have omitted up to now to discuss the specific temporal orientation of such attitudes.

ensures that the modal base Dox_{α} (w) contains both ϕ - and non- ϕ -worlds,⁹ and is necessary in order to avoid situations in which one of the set of worlds being ranked should be the empty set. If there were no ϕ -worlds (or no non- ϕ -worlds) in the modal base, universal quantification restricted by the empty set would give rise to vacuous truth. I will refer to this property by saying that the modal base is ϕ -diverse. Heim's presupposition provides an answer to question (ii) above by establishing a necessary link between ϕ -diversity and comparative ordering of worlds. A similar motivation for ϕ -diversity in the case of modals has been advanced by Werner (2003), who links it to the assumption that the interpretation of modals always involves an ordering source, and to the vacuousness of ordering which would result from a lack of ϕ -diversity.¹⁰

Heim extends her semantics for volitionals in a way that elegantly captures the whole class of volitionals adumbrated by Kenny (1963), including most notably reports of counterfactual desires and factive predicates expressing an attitude of approval. This is done in a single move, by supposing that in both cases, the doxastic modal base is minimally revised in order to admit the relevant worlds not included in the actual doxastic alternatives of the bearer of the attitude: the ϕ -worlds, which are ranked higher, in the case of counterfactual wishes, and, respectively, the non- ϕ -worlds, which are ranked lower, in the case of positive evaluative-factives.

- (21) 'α wishes φ' is true in w iff for every w' ∈ rev φ (Dox_α (w)): every φ-world maximally similar to w' is more desirable to α in w than any non-φ-world maximally similar to w'
- (22) 'α is glad that φ' is true in w iff for every w' ∈ rev ¬φ (Dox_α (w)): every φ-world maximally similar to w' is more desirable to α in w than any non-φ-world maximally similar to w'

In this account, *want*, *wish* (when embedding an *irrealis* complement), and *be glad* share a core ordering semantics that ranks the (most similar) worlds verifying the argument clause higher than those not verifying it. They differ as to the characteristics of the doxastic modal base, which is ϕ -diverse in the case of *want*, incompatible

⁹ As far as volitionals are concerned, the intuition as to the necessity of doxastic ϕ -diversity (epistemic uncertainty) is widespread, and is also found in Hintikkian treatments of volitionals, which do not rely on ordering of alternatives. Thus, Zimmermann (2006) formulates a bridge axiom relating epistemic and bouletic modality which has the effect of ensuring that uncertainty as to *p* follows from the desire of wanting *p* to hold.

¹⁰ As stated in Section 2.2, it seems preferable to treat ϕ -diversity as a "softer" pragmatic felicity condition, which may be circumvented in some contexts. In fact, sentences such as *I live in Bolivia because I want to live in Bolivia* are clearly not instances of presupposition failure, although neither future orientation nor epistemic uncertainty ensure ϕ -diversity in this case.

with ϕ in the case of *wish*, and incompatible with non- ϕ in the case of *be glad*. The felicity condition imposing epistemic uncertainty for a volitional whose argument clause makes reference to a decided issue is built into the requirement of ϕ -diversity for the modal base.

Note that it follows from this proposal that the infelicity of *want*-sentences whenever the relevant epistemic agent (the bearer of the attitude) believes ϕ or non- ϕ is actually a matter of lexical competition and lexical choice. Straightforward volitionals (*want*-type) should comply with the requirement of ϕ -diversity. If the relevant epistemic agent believes non- ϕ , her preference for ϕ should be expressed by a counterfactual volitional (23b), if she believes ϕ , her preference should be expressed by an evaluative-factive (24b).

- (23) a. #I want Peter to have arrived earlier than he did.b. I wish Peter had arrived earlier than he did.
- (24) a. #I want Peter to have arrived at the time he arrived.b. I'm glad Peter arrived at the time he arrived.

Certainty as to non- ϕ or ϕ —which is ensured by the contradictoriness of ϕ in (23a, 23b) and by tautology in (24a, 24b)—should be expressed respectively by a counterfactual or by an evaluative-factive, whose semantics explicitly rely on revisions of the original doxastic modal base.

Heim's unification of volitionals with evaluative-factives sets Kenny's intuitions as to what statements and reports of desires convey on an explicit basis (see also Farkas 2003). It seems all the more convincing in light of the fact that in the presence of counterfactual morphology,¹¹ sentences containing evaluative-factives are very close in meaning to sentences containing volitionals:

- (25) a. Peter wishes that Mary had settled in Madrid.
 - b. Peter would have liked it for Mary to settle in Madrid.

However, Heim's account does not explain the curious behavior of *querer*, which, as discussed in the previous section, does not allow a past temporal orientation. This property also extends to *want*, as attested by the unacceptability of (26):

(26) Peter wants Mary to have settled in Madrid *(by next week).

This property is entirely unexpected in the light of definition (20) above, since the felicity condition for *want* only requires uncertainty of the bearer of the attitude as to Mary's having settled or not in Madrid, and not the objective uncertainty associated with contingent futures.

¹¹ I will assume for the purposes of this discussion that *wish* is to be analysed as *want* + counterfactual morphology (Iatridou and von Fintel 2008).

2.3.2 Volitionals as dispositions to act

Portner (1997) offers a suggestive alternative account for certain non-indicative clauses, which in his treatment may be ambiguous between expressions of propositional attitudes and attributions of "plans" to an agent. The key to his analysis is the distinction between propositions as sets of possible worlds and propositions as sets of situations. Whereas possible worlds are complete specifications of entire worldhistories, situations are smaller spatiotemporal parts of possible worlds. Situations are ordered by the part-of relation, so that possible worlds can be conceived of as maximal situations. Propositions are sets of situations, and a proposition is said to be persistent iff it contains every supersituation in it. For persistent propositions, it is always possible to recover a set of possible worlds from a set of situations. However, Portner assumes that some propositions are not persistent. In particular, the propositions denoted by imperatives, as well as by infinitives and subjunctives embedded under directive verbs, are sets of situations that do not extend to whole world histories, precisely because of their future orientation: the situations involved start after the reference situation, which is the utterance situation in unembedded contexts, and the embedding situation denoted by the matrix clause in embedded contexts. I will follow Ginzburg and Sag (2001) in referring to those non-persistent, inherently future-oriented "propositions" as outcomes.

In this setup, the future orientation of directives is part of their definition: it follows from the type of semantic object that directives select for. Since outcomes are not propositions as sets of possible worlds, truth or falsity do not apply to them. By contrast, outcomes can be fulfilled or not, according to the existence or not in the world of evaluation of a situation starting after the reference situation that supports the description of the outcome:

- (27) a. John said that Mary would arrive early, and what he said is true.
 - b. John told Mary to arrive early, and what he said ??is true/was fulfilled.

This account can be extended to causatives, which would also take outcomes as arguments. Since the vast majority of causatives are implicative, they entail the fulfillment of their complement.¹²

Turning back to volitionals, Portner's account opens the possibility of treating them both as propositional attitudes and as outcome-embedding predicates. The

¹² Relating causatives to outcomes seems a more natural move than appealing, as Quer does (1998, ch. 2, sect. 5.3), to the "non-veridical epistemic model representing future realizations of the world according to the main subject." Quer's proposal fails to account for non-animate causative subjects, which cannot possibly introduce epistemic models:

 (i) El buen tiempo hizo/ contribuyó a/ ayudó a que la fiesta fuera un éxito. The fine weather made/contributed to/helped to that the party be.IMPF.SBJ. a success 'The fine weather contributed to the success of the party.' difference hinges on the way bouletic alternatives are defined. In the first case, bouletic alternatives are sets of worlds, as expressed in (28):

(28) For any situation s, $Bul_{\alpha}(s) = \{w : w \in Dox_{\alpha}(s) \text{ and } w \text{ satisfies } \alpha's \text{ desires in s} at least as well as any other world in <math>Dox_{\alpha}(s)\}$

In the second case, bouletic alternatives are modeled in terms of fulfilling plans for action. Plans are conceived of as possible situations "which follow the agent through a course of actions that ultimately results in the desired state." The "desired state" is described by a non-persistent proposition, an outcome, since it is a part of a situation (the plan) that starts after the reference situation and does not extend backwards in time. Portner (1997) explicitly assumes that the infinitival complement of *want* denotes a non-persistent proposition. Note that this assumption offers a straightforward explanation for the ban on a past temporal orientation in the case of *want*: an outcome cannot precede its reference situation.

Portner's suggestion paves the way for distinguishing volitionals that state or report evaluations, and take propositions as their complements, from volitionals that state or report dispositions for action, and take outcomes as their complements. The latter, but not the former, will be confined to the same temporal configurations that are legitimate for directives and causatives. This provides an answer to our questions (i) and (iii) above: directives and causatives show a uniform temporal orientation because they always take outcomes as their complements, whereas volitionals can either take outcomes or propositions as their complements. *Querer* shows a stricter future orientation because its lexical semantics is primarily that of a disposition to act, thus primarily selecting outcomes as complements.

This distinction derives some support from the fact that volitionals allowing for a past temporal orientation can embed fragment answers to a question, just as assertion and belief predicates do, whereas *querer* does not allow this pattern (Falaus 2009):¹³

- (29) [¿Van a invitar a Juan?'Are they going to invite Juan?]
 - a. Pedro cree/dice que sí.
 Pedro believes/says that yes.
 'Pedro believes/says so.'

¹³ The particular syntactic and semantic behavior of "hope"-type verbs, of which *esperar* is an instance, has recently attracted considerable attention. Anand and Hacquard (2012) classify them as emotive-doxastics, which have a hybrid semantics combining a representational and a preference component. In fact, one can have false hopes as one has false beliefs, but no "false wishes." At least for *esperar*, it can be easily shown that the representational ("belief") component is entailed, whereas the preference component is presupposed: the preference component survives under negation, as well as in questions and in the antecedent of conditionals, as shown in (i.a–i.c):

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(i) a. No espero que me paguen.
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'I don't expect them to pay me (though I would like them to).'

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- b. Espero/Prefiero que sí.I hope/I prefer that yes.'I hope so/I'd rather they would.'
- c. *Quiero que sí. I want that yes *'I want so.'

Recall, however, that the parallelism between *querer* and causatives and directives breaks down when *querer* bears counterfactual morphology: in such cases, a past or simultaneous temporal orientation becomes possible for *querer*, but remains excluded for directives and causatives. The relevant examples are repeated below for convenience:

- (30) a. *Pedro querría que María se hubiera instalado en Madrid*. Pedro want.COND that María REFL have.IMPF.SBJ.3SG settled in Madrid 'Pedro would like María to have settled in Madrid.'
 - b. *Pedro querría que María estuviera ya en Madrid*. Pedro want.COND that María be.PR.SBJ.3SG already in Madrid 'Pedro would like it for María to be already in Madrid.'

Interestingly enough, counterfactual morphology on *querer* also licenses embedding of fragment answers:

(31) [¿Van a invitar a Juan?
'Are they going to invite Juan?]
Yo querría que sí.
I want.COND that yes
'I'd like them to.'

The presence of counterfactual morphology thus seems to turn *querer* into a run-ofthe mill volitional embedding a proposition and asserting an ordering among worlds. Before turning to the question of the role of counterfactual morphology, let us examine the behavior of evaluative-factives, on which counterfactual morphology also produces particular interpretive effects.

- b. ¿Esperas que te paguen por esto? Pues te equivocas, no te pagarán.'Do you hope to be paid for this? Well, you're wrong, they won't pay you.'
- c. *Si esperas que te paguen por esto, estás muy equivocado.* 'If you hope/expect to be paid for this, you're quite mistaken.'

Moreover, *esperar* does not even comply with the initial formulation of the ban on past temporal orientation for volitionals, since it allows for past subjunctives embedded under a non-past matrix verb:

Espero que estuviera en Madrid ayer.
 hope.PR.IND.ISG that be.IMPF.SBJ in Madrid yesterday
 'I hope s/he was in Madrid yesterday.'

2.4 Volitionals, evaluative-factives, and counterfactual morphology

The temporal orientation of evaluative-factives is exactly the opposite to that of matrix verbs selecting for intensional subjunctives. In fact, they exhibit a clear antifuture orientation. Thus, they can embed both a past subjunctive under a present matrix verb (32a) and prospective aspect (32b), they enforce simultaneous interpretations with states (32c), and they give rise to scheduled readings in contexts in which an episodic eventive predicate forces forward-shifting. These are felt to be inadequate if the event in question is not amenable to scheduling (32d):

- (32) a. *Me alegra que estuvieran en casa*. me rejoice.PR.IND.3SG that be.IMPF.SBJ.3PL at home 'I'm glad they/you were at home.'
 - b. *Me alegra que vayan a demoler ese edificio*. me rejoice.PR.IND.3SG that go.PR.SBJ.3PL to tear down this building 'I'm glad they are going to tear down this building.'
 - c. *Me alegra que el artículo tenga veinte páginas.* me rejoice.PR.IND.3SG that the paper have.PR.SBJ.3SG twenty pages 'I'm glad the paper is twenty pages long.'
 - d. #Me alegra que María gane la próxima carrera.
 me rejoice.PR.IND.3SG that María win.PR.SBJ.3SG the next race
 #'I'm glad María wins/is winning the next race.'

The reason for these temporal effects lies in the factivity of evaluative-factives: the truth of the argument clause is presupposed to be settled at the time of evaluation (TMATRIX). Only past and present facts, as well as scheduled future situations, are apt to fulfill this settledness presupposition. However, when the verb bears conditional morphology, forward-shifting of states becomes possible and scheduling effects disappear:

- (33) a. Me alegraría que el artículo tuviera veinte páginas.
 me rejoice.COND.3SG that the paper have.IMPF.SBJ.3SG twenty pages
 'I'd be glad if the paper were (to be) twenty pages long.'
 - b. *Me alegraría que María ganara la próxima carrera*. me rejoice.cond.3sG that María win.IMPF.SBJ.3G the next race 'I'd be glad if María were to win the next race.'

Correspondingly, as shown in (34b), the factivity of evaluative factives does not survive counterfactual morphology:

(34) a. *Me alegra que el artículo tenga veinte páginas*. me rejoice.pr.IND.3SG that the paper have.pr.SBJ.3SG twenty pages 'I'm glad the paper is twenty pages long.' *#Pero no sé si las tiene.* 'But I don't know if it is.'

b. *Me alegraría* que el artículo tuviera veinte páginas. me rejoice.cond.3sG that the paper have.IMPF.SBJ.3sG twenty pages 'I'd be glad if the paper were (to be) twenty pages long.' *Pero no sé si las tiene/ las va a tener.* 'But I don't know if it is/ if it will be.'

Note that it is only non-overtly licensed counterfactual morphology that has this effect.¹⁴ Non-overtly licensed counterfactual morphology is known to require the accommodation of a restriction corresponding to an *irrealis* antecedent, which is generally retrieved from material in the previous context (see Corblin 2002: 255–61 for detailed discussion of the major patterns of retrieval). However, in the case of modals, volitionals, and evaluative-factives, a form of self-licensing seems to obtain, in as far as the interpretation need not rely on the previous context. Kasper (1992) suggests that the interpretation of non-overtly licensed counterfactuals (which he calls *simple subjunctives*) may rely on unfulfilled "preconditions" for the truth of the sentence: the missing restriction could be thus built from the presuppositions of the sentence itself. This account squares well with the fact that counterfactual morphology alters the presuppositional nature of evaluative-factives: if the missing *irrealis* restriction is the content of the (presupposed) argument clause, we obtain one of the typical environments not allowing presupposition projection:¹⁵

(35) [Si el artículo tuviera veinte páginas] me gustaría que el artículo tuviera veinte páginas

'[If the article were twenty pages long], I'd be glad for the paper to be twenty pages long.'

The question that arises at this point is whether an account in terms of a missing restriction built from unfulfilled "preconditions" for the truth of the sentence can explain the effects of self-licensing counterfactual morphology on the temporal

¹⁴ In Laca (2010a), I assume that conditional morphology is inherently anaphoric and is normally bound (a) by an embedding verb of assertion or belief in the past tense, giving rise to "future of the past" interpretations, or (b) by an *irrealis* antecedent, giving rise to modal interpretations (future-less-vivid or counterfactual conditional assertions).

¹⁵ Pesetsky (1991: 62) relies on a similar intuition when arguing that the paraphrase "John would like it that Mary knows French if Mary knew French" is the actual underlying representation of the sentence "John would like it if Mary knew French." The *if*-clause would perform the double role of giving the content of the clausal argument of *like* and acting as a counterfactual restriction. For a recent treatment of this and analogous constructions, see Thompson (2012).

orientation of *querer*. Recall that we hypothesized above that *querer* shows a stricter future orientation because its lexical semantics is that of a disposition to act, thus primarily selecting outcomes as complements. If this is the case, one of the "preconditions" for the truth of a *querer*-sentence is that the content of its argument clause be a metaphysically open possibility (a historical contingency)¹⁶ for the subject of the attitude at the time of the attitude. This precondition can then be targeted when building the missing restriction for counterfactual morphology. By cancelling the temporal presupposition of *querer*, non-overtly licensed counterfactual morphology allows it to function as the simple assertion of a ranking among worlds, taking a proposition at its complement. This possibility is not open for causatives and for directives (in as far as they perform or report directive speech acts): neither causatives nor directives seem to have a proposition-selecting variant, causation being a relation between eventualities and directives being instructions to act.¹⁷

In Heim's framework, volitionals carry a presupposition of epistemic uncertainty, according to which the bearer of the attitude neither believes ϕ nor non- ϕ (Heim 1992: 198). This presupposition ensures that the modal base Dox_{α} (w) contains both ϕ - and non- ϕ -worlds. Another possible function of counterfactual morphology on *any* volitional is that of signaling that the modal base has been revised in order to comprise ϕ -worlds, because the bearer of the attitude believes non- ϕ . In such uses, counterfactual morphology would make the same contribution it has been held to make in the case of counterfactual conditionals: that of widening the domain of alternatives in order to capture possibilities that might not be included in the relevant modal base (von Fintel 1999). In support of this possibility, consider the fact that only (36a), but not (36b) attributes to the bearer of the attitude the implausible belief that he can jump to the moon:

- (36) a. Pedro está loco: quiere llegar a la luna de un salto.
 Pedro is mad: want.PRES.IND.3SG arrive to the moon of a jump
 'Pedro is mad: he wants to jump to the moon.'
 - b. *Pedro está loco: querría llegar a la luna de un salto.* Pedro is mad: want.COND.3SG arrive to the moon of a jump 'Pedro is mad: he would like to jump to the moon.'

¹⁶ For the formal notion of historical contingency, see Condoravdi (2001), Kaufmann, Condoravdi, and Harizanov (2006), Condoravdi and Lauer (2009).

¹⁷ Directive verbs have uses in which they neither perform nor report directive speech acts, for instance when they have inanimate subjects. In such cases, they are fully compatible with a past temporal orientation:

⁽i) El contrato exige que ya hayan completado el informe.

^{&#}x27;The contract requires for them to have already completed the report.'

2.5 Conclusion and outlook

The examination of the different constraints on temporal orientation affecting intensional subjunctives suggests that differences in temporal orientation are connected to the different types of semantic objects denoted by selected subjunctive argument clauses. An obligatory future or non-anterior orientation signals that the relevant object is not a proposition (a set of possible worlds), but an outcome (a situation or eventuality that ensues from a cause or is targeted by a disposition to bring it about). By contrast, anti-future orientation—as exhibited by evaluativefactives—is an indication that the relevant object is a fact (a proposition presupposed to be true by the speaker). The puzzling behavior of volitionals can be accounted for by assuming that they may be interpreted as dispositions to act, in which case the complement is construed as an outcome, or else they may carry the semantics of non-factive evaluatives, in which case the complement is construed as a proposition. Self-licensing conditional morphology contributes to blurring the difference between factive and non-factive evaluatives, because it cancels the factive presupposition.

When establishing the semantic class of volitionals, Kenny (1963) was keenly aware of their linguistic heterogeneity, and of the fact that some of them model their construction on that of reported commands, others on that of reported statements, and still others on that of counterfactual *if*-clauses. Unifying the class in terms of a preference semantics for "attitudes of approval" was an undoubtedly important step in developing a finer-grained semantics for attitude verbs, and in clarifying their relation to belief attitudes. But over and above the preference semantics all volitionals share, the differences exhibited in their grammatical behavior seem to be of greater logical importance than Kenny was prepared to admit.

One question that immediately arises in the light of the explanation suggested in this chapter is that of the possible correspondence between semantic and syntactic objects: are "smaller" semantic objects, like outcomes, denoted by "simpler" syntactic objects and, correspondingly, are "bigger" semantic objects, like propositions, denoted by "more complex" syntactic objects?

Both the recent literature on infinitival complementation and that on the epistemic/metaphysical ambiguity of some modal operators offer proposals which could be exploited in the search for such correspondences, and could in turn lead to a better formal understanding of the proposition/outcome contrast we have relied upon in this chapter.

Thus, Wurmbrand (2014) argues for a flexible clause structure for infinitives, which, depending on the selecting predicate, may be a full-fledged T-Phrase, a woll-Phrase, or a v/Asp-Phrase. Attitude predicates such as *claim* or *believe* select full-fledged T-Phrases, which include a temporal argument corresponding to the *now* of the attitude holder, whereas predicates like *decide*, *expect*, or *predict*, which shift

the reference time of the infinitival clause forward, select a phrase headed by a (temporal-modal) woll-operator (see Abusch 2004). Predicates which necessarily share the reference time of the infinitival clause, like try or begin, simply select a v/Asp-phrase. Wurmbrand's classification contains aspectual superlexical predicates, as for instance begin, and it ignores the divide between attitudes of acceptance and attitudes of preference (the status of the predicates selecting future-oriented infinitives that she discusses is unclear as to this divide). However, the hypothesis of a flexible clause structure Wurmbrand advances for infinitives could be fruitfully extended to subjunctive clauses. Subjunctive clauses allowing for a past, present, or future temporal orientation, as for instance those embedded under evaluativefactives, under some volitionals as such as esperar, preferir, desear, or under querer when it bears counterfactual morphology, would be full-fledged T-Phrases. By contrast, those imposing a future temporal orientation, as causatives, directives, and action-oriented volitionals (e.g. anhelar, aspirar, and querer) would be either Asp-Phrases or v-Phrases. It is important to notice that this categorial flexibility would only hold for (a subset of) intensional subjunctives. Polarity subjunctives would be uniformly C/T-Phrases, precisely in the same way in which indicative argument clauses are always C/T-Phrases.

Starting from a different question, that of the ambiguity of the Hindi marker *-gaa*, which can be both an epistemic operator and a future operator, Kush (2011) proposes an analogous distinction between operators taking full-fledged propositions (TPs) as arguments, and operators taking just temporal properties (AspP) as arguments. According to Kush, full-fledged propositions are properties of worlds. They are denoted by T-Phrases, in which the most external time variable is either quantified or referential, not lambda-bound. By contrast, Asp-Phrases are properties of world-time pairs. Applying this idea to the complementation of attitude verbs, one arrives at results which are quite similar to those suggested by Wurmbrand (2014). Indicative argument clauses, and the argument clauses of evaluative-factives, of volitionals like *esperar*, *preferir*, *desear*, or of *querer* when it bears counterfactual morphology, would be full-fledged propositions, denoting sets of worlds. By contrast, the argument clauses of directives and action-oriented volitionals would simply be temporal properties, that is, properties of world-time-pairs.

Earlier approaches (see for instance Rochette 1988) tried to establish one-to-one correspondences between the subjunctive/infinitive/indicative alternation and different types of syntactic and semantic objects. If Wurmbrand (2014) and Kush (2011) are on the right track, which seems plausible, these approaches were doomed to failure, because both infinitival and subjunctive clauses have a flexible clausal structure, and may instantiate different semantic types. In the same vein, attributing the same type of syntactic and semantic object (a futurate, non persistent proposition) to all occurrences of *for*-infinitives in English leads to the highly implausible conclusion that a sentence like *I regret for you to have come all this way* has a future orientation

(Portner 1997). But finer-grained correspondences between syntactic and semantic type may have a higher explanatory value.

Also, in earlier approaches it was rather generally assumed that subjunctive clauses are in some way temporally defective (see Picallo 1984/1990). I have argued elsewhere against this view, on the grounds that subjunctive tenses are interpretable, and temporal harmony between matrix and subordinate tenses is far from holding across the board in Spanish (see Laca 2010b). However, if we follow the path traced by Wurmbrand (2014) and Kush (2011), and assume that some subjunctive clauses are but Asp-Phrases, this amounts to admitting that precisely these subjunctive clauses are temporally defective, in so far as they lack a T-projection. The situation is paradoxical in so far as these clauses exhibit morphological tense, which in other contexts appears to be fully interpretable. In fact, however, the only temporal contrast that is interpreted in the complement clause of causative, directive, and actionoriented volitionals is the contrast between deictic tenses (present subjunctive forms) and anaphoric tenses (past subjunctive forms). Interestingly enough, this contrast seems to be increasingly neutralized in these environments in many Spanish varieties. If it were fully active, it would produce double access effects whenever a present subjunctive form is embedded under a past matrix verb: the embedded situation would have to be anchored both to Tmatrix and to Utt-T (see Giorgi 2006). But intensional subjunctives are in fact a major source for the violation of expected double access-effects accross Spanish varieties (cf. Sessarego 2008a, 2008b). Thus, examples such as the following, in which a causative matrix verb in the past tense embeds a present subjunctive form, but the event in the subjunctive clause precedes Utt-T (the article from which the example was taken appeared after the Torino summit), indicate that the morphological subjunctive tense (which would require simultaneity or posteriority with regard to Utt-T) is not being interpreted:

España consiguió la cumbre de (37) europea que en Spain get.SP that in the summit European of Turín Países miembros de la UE se comprometan los а Torino the countries members of the EU REFL commit.PR.SBJ to el eliminar terrorismo сото delito político. the eliminate terrorism crime political as 'Spain obtained from EU member states at the Torino summit the commitment to eliminate terrorism as a political crime.' (El Mundo 31 March 1996) REAL ACADEMIA ESPAÑOLA: Banco de datos (CREA) [en línea]. Corpus de referencia del español actual. <http://www.rae.es> [accessed 30 December 2008]

The possibility that emerges from this discussion is that the defective-tense hypothesis, although clearly inadequate for the whole bulk of subjunctive uses, could appropriately account for the structure of "outcome-denoting" subjunctive clauses.

Postscriptum

Since the research reported in this article was conducted, a promising approach in preference semantics has arisen (see in particular Condoravdi and Lauer 2009, 2010, 2011) that tends to unify volitionals, imperatives, and directives under the ordering semantics of bouletics, namely as public commitments to preferences or reports of such public commitments. The eventual success of such an approach could do away with the necessity of enriching the ontology with outcomes, provided that the requirement of historical contingency (for the relevant epistemic agent) could be built into the semantics of the action-oriented attitudes of preference associated with imperatives, directives, and with volitionals of the *querer*-type.

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