

## Mood Selection in Romance Complement Clauses

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SinFonJJA 5  
University of Vienna, September 27-29, 2012

### 1. INTRODUCTION

- In Romance, intensional verbs select for a particular mood in their complement clause.
- Verbs selecting an INDICATIVE complement clause in Spanish (so-called 'weak intensional verbs') (Villalta 2008):
  - Doxastic (epistemic) verbs: *saber* 'know', *pensar* 'think', *creer* 'believe', ...
  - Verbs of communication: *decir* 'say', *anunciar* 'announce', ...
  - Verbs of certainty: *estar seguro de* 'be certain that', *ser cierto que* 'it's true that'...
  - Verbs of commitment: e.g. *prometer* 'to promise'.
  - Verbs of fiction: e.g. *soñar* 'to dream'.
  - Verbs of mental judgement: *adivinar* 'to guess', *entender* 'to understand', ...
  - Perception verbs: *ver* 'to see', *escuchar* 'to hear', *notar* 'to feel', ...
- (1) Sofia **cree** / **sabe** que se ha-IND / \*se haya-SUB planeado un picnic.  
Sofia believes / knows that SE has-IND / \*has-SUB planned a picnic  
'Sofia believes / knows that a picnic has been planned.'
- (2) Marcela **dice** que Antonio vendrá-IND / \*venga-SUB.  
Marcela says that Antonio come-FUT-IND / \*comes-PRES-SUBJ  
'Marcela says that Antonio will come.'
- (3) Ana **soñó** que podía-IND / \*pudiese-SUB volar.  
Ana dreamt that could-IND / \*could-SUB to-fly.  
'Ana dreamt that she could fly.'
- Verbs selecting a SUBJUNCTIVE complement clause in Spanish (so-called 'strong intensional verbs') (Villalta 2008):
  - Desire verbs: *querer* 'to want', *preferir* 'to prefer', *desear* in conditional form 'to wish', *intentar* 'to try', *temer* 'to fear', ...
  - Factive-emotive verbs: *lamentarse de* 'to regret', *alegrarse de* 'to be glad that', ...
  - Modal verbs: *es posible* 'is possible', *es necesario* 'is necessary', ...
  - Verbs of doubt: e.g. *dudar* 'to doubt'.
  - Directive verbs: *ordenar* 'to order', *aconsejar* 'to advise', *pedir* 'to request', ...
  - Causative verbs: *hacer* 'to make (somebody do sth.)', *conseguir* 'to manage', ...
- (4) Sofia **quiere** que pro \*planeas-IND / planees-SUB un picnic.  
Sofia wants that (you) \*plan-IND / plan-SUB a picnic  
'Sofia wants you to plan a picnic.'
- (5) Marcela **se alegra** de que Antonio \*ha-IND / haya-SUB venido.  
Marcela SE is-glad of that Antonio \*has-IND / has-SUBJ come  
'Marcela is glad that Antonio has come.'
- (6) Ana **ordenó** que Juan \*hacía-IND / hiciese-SUB los deberes.  
Ana ordered that Juan \*do-IMP-IND / do-IMP-SUB the homework  
'Ana ordered John to do the homework.'

- We have illustrate this classification for Spanish, but it also holds –with only a few exceptions– for Romance in general (Farkas 1992, Quer 1998). This motivated researchers to root the IND/SUB selection in the semantic characterization of the embedding verbs.
- (7) “Crosslinguistically, diachronically and in the process of language acquisition and language attrition the presence of subjunctive in these contexts [MR: in complement clauses of strong intensional verbs] is extremely robust.” (Quer 1998:27)
- Traditional idea, relating mood in complement clauses to mood in conditionals:
- (8) a. Si Juan fue-IND ayer a la fiesta, la fiesta fue-IND divertida.  
'If John went to the party yesterday, the party was fun.'  
b. Si Juan hubiese-SUBJ ido ayer a la fiesta, la fiesta habría-COND sido divertida.  
'If John had gone to the party yesterday, the party would have been fun.'
- (9) a. Si Juan va-IND mañana a la fiesta, la fiesta será-IND divertida.  
'If John goes to the party tomorrow, the party will be fun.'  
b. Si Juan fuese-SUBJ mañana a la fiesta, la fiesta sería-COND divertida.  
'If John went to the party tomorrow, the party would be fun.'
- (10) INDICATIVE as "realis": quantification over worlds close to the actual one.  
SUBJUNCTIVE as "irrealis": quantification over worlds that are more distant of the actual one or that are already known to be impossible.
- Problem with the traditional idea: Factivity.  
A verb is **factive** if it presupposes that its complement clause is true. E.g. *saber* 'know'.
- (11) The sentence *John knows that Ann is smart*, when uttered in a world *w*, presupposes that *Ann is smart* is true in *w*.
  - Among the Vs selecting SUBJUNCTIVE, there are factive verbs, such as factive-emotives and causatives.
  - Among the Vs selecting INDICATIVE, there are non-factive verbs, e.g. *soñar* 'dream'.
- A large body of research has tried to give a semantic analysis of mood selection, some making an explicit link between mood in conditionals and mood in complement clauses:
  - Modal Base line: Farkas (1992), Quer (1998, 2009), Giannakidou (1995), Schlenker (2005), a.o.
  - Ordering Source line: Giorgi and Pineschi (1997), Villalta (2008), a. o.
- The GOAL of the present paper is two-fold:
  - (i) to present problems remaining in some of the most recent analyses, namely in Giorgi and Pineschi (1997) and Villalta (2008), and
  - (ii) to tentatively advance a way of implementing the traditional idea that circumvents these new problems.
- Plot:
  - §2. Problems with some recent accounts.
  - §3. von Stechow's (1997) analysis of indicative and subjunctive conditionals.
  - §4. Towards a proposal.
  - §5. Conclusions and further issues.

## 2. SOME RECENT ACCOUNTS AND THEIR PROBLEMS.

### 2.1. Conversational backgrounds and attitude verbs

#### ■ Conversational backgrounds (Kratzer 1991):

A conversational background is a set of propositions (cf. accessibility relation).

Conversational backgrounds come in different flavours: (12).

#### (12) Conversational backgrounds:

- $Dox_x(w)$  = the set of propositions that  $x$  *believes* in  $w$  to be true.  
 $Bou_x(w)$  = the set of propositions that  $x$  *desires* in  $w$  to be (come) true.  
 $Deo(w)$  = the set of propositions that conform to *what the law provides* in  $w$ .  
 $Cir(w)$  = the set of prop. that describe the *actual facts/circumstances* in  $w$ .  
 $Epi_x(w)$  = the set of propositions that  $x$  *knows* in  $w$  to be true.  
 ...

- (13) a. Realistic conversational backgrounds:  $Cir(w)$ ,  $Epi_x(w)$ , ...  
 b. Non-realistic conversational backgrounds:  $Dox_x(w)$ ,  $Bou_x(w)$ ,  $Deo(w)$ , ...

#### ■ Hintikka-style semantics for belief verbs (and other attitude verbs) (Hintikka 1969):

Attitude verbs introduce quantification over the domain of worlds arising from the relevant conversational background, used as MODAL BASE.

#### (14) Bea **believes** that John teaches Semantics.

$\lambda w_0. \forall w [ w \in \cap Dox_{bea}(w_0) \rightarrow \text{John teaches semantics in } w ]$

#### ■ Stalnaker-Heim-style semantics for desire verbs (Stalnaker 1984, Heim 1992):

Besides a modal base, a conversational background is used as ORDERING SOURCE to establish a desirability ranking ( $>$ ) among worlds.<sup>1</sup>

#### (15) Intuitive idea:

$x$  *wants*  $p$  means " $x$  believes that: if  $p$  then  $x$  will be in a better world than if  $\neg p$ ".

#### (16) For any $w'$ , $w'' \in W$ :

$w' >_{Bou_x(w_0)} w''$  iff  $w'$  is more desirable according to  $Bou_x(w_0)$  than  $w''$ .

#### (17) $\llbracket x \text{ wants } p \rrbracket$

$= \lambda w_0. \forall w \in \cap Dox_x(w_0) [ Sim_w(p) >_{Bou_x(w_0)} Sim_w(\neg p) ]$   
 $=$  we are in a world  $w_0$  such that, for every belief world  $w$  of  $x$  in  $w_0$ :  
 every  $p$ -world maximally similar to  $w$  is more desirable to  $x$  in  $w_0$  than any non- $p$ -world maximally similar to  $w$ .

#### (18) Bea **wants** John to teach Semantics.

$\lambda w_0. \forall w \in \cap Dox_{bea}(w_0) [ Sim_w(\lambda w'. \text{John teaches sem in } w') >_{Bou_{bea}(w_0)} Sim_w(\lambda w'. \neg \text{John teaches sem in } w') ]$

<sup>1</sup> The symbol " $>$ " has been reversed from Heim (17) is the non-dynamic version of her analysis

### 2.2. Giorgi and Pianesi's (1997) analysis.

#### ■ Their proposal for languages like French, Romanian and Spanish: Ordering Source.

- (19) SUBJUNCTIVE signals that the embedding verb introduces a non-null ordering source.  
INDICATIVE signals that the embedding verb has a null ordering source.

- (20) a. Non-null Ordering Source: desire verbs, directive verbs, ...  $\Leftrightarrow$  SUBJUNCTIVE  
 b. Null Ordering Source: doxastic verbs, verbs of communication, ...  $\Leftrightarrow$  INDICATIVE

- (21) Creo que **está-IND** / \***está-SUBJ** cansada. [Spanish]  
 'I believe she is tired.'

#### ■ Their proposal for languages like Italian: kind of Modal Base.

- (22) When the Ordering Source is non-null, SUBJUNCTIVE is used.

When the Ordering Source is null, then:

If the Modal Base is non-realistic, we use SUBJUNCTIVE.

If the Modal Base is at least weakly realistic, we use INDICATIVE.

- (23) a. Non-null Ordering Source: desire verbs, directive verbs, ...  $\Leftrightarrow$  SUBJUNCTIVE  
 b'. Null Ordering Source, non-realistic Modal Base: doxastic verbs  $\Leftrightarrow$  SUBJUNCTIVE  
 b''. Null Ordering Source, weakly realistic Modal Base (with non-empty intersection with some common ground): verbs of communication  $\Leftrightarrow$  INDICATIVE

- (24) Credo che lei \***è-IND** / **sia-SUBJ** stanca. [Italian]  
 'I believe she is tired.'

#### ■ General picture:



#### ■ Problem: this analysis does not extend to conditional sequences.

○ *If*-clause: Although a non-empty ordering source is involved in (26), the authors argue that the *if*-clause simply restricts the Modal Base and is not affected by the Ordering Source, as in (27) (Kratzer 1991), hence licensing the indicative. But note that (27) is also the intended interpretation template for a counterfactual sequence like (28), hence wrongly licensing the indicative in a counterfactual *if*-clause.

- (26) (In view of what the law provides,) if John commits-**IND** a murder, he must go to jail.  
 a. Modal Base  $f$ : circumstantial. b. Ordering Source  $g$ : deontic.

- (27)  $\llbracket \text{if } \alpha \text{ (must) } \beta \rrbracket^{f;g} = \llbracket \text{must } \beta \rrbracket^{f^*;g}$  where, for every world  $w$ ,  $f^*(w) = f(w) \cup \{ \llbracket \alpha \rrbracket^{f;g} \}$

- (28) If John had-**SUBJ** gone to the party, it would have been fun.  
 a. Modal Base:  $\emptyset$ . b. Ordering Source: totally realistic.

o Matrix clause: Deontic conditionals like (29) involve a non-empty (and non-realistic) Ordering Source relevant for the interpretation of the matrix clause. Still, the matrix clause licenses the indicative.

- (29) (In view of what the law provides,) necessarily / obligatorily, if John commits a murder, he goes-**IND** to jail.  
 a. Modal Base: circumstantial.      b. Ordering Source: deontic.

### 2.3. Villalta's (2008) analysis.

■ Boër (1978): counterfactual conditional sentences show focus sensitivity.

- (30) Scenario: Ted's father left a clause in his will stipulating that Ted can only receive his inheritance if he is married by a certain date.  
 (31) If Ted hadn't MARRIED Alice, he would have lost his inheritance. ⇒ TRUE in (30)  
 (32) If Ted hadn't married ALICE, he would have lost his inheritance. ⇒ FALSE in (30)

■ Villalta (2008), building on Dretske (1975), shows that strong intensional verbs –desire verbs, factive-emotives, directives, causatives, etc.– show focus sensitivity as well.

- (33) Scenario: Lisa would prefer it if Lara would teach syntax rather than John. But, given that she knows that John has to teach syntax, she prefers it if he teaches it on Tuesdays and Thursdays than if he teaches it on Mondays and Wednesdays.  
 (34) Lisa wants John to teach syntax ON TUESDAYS AND THURSDAYS.  
 “John teaching syntax on Tu & Th is more desirable to Lisa in  $w_0$  than John teaching on some alternative days.” ⇒ TRUE in (33)  
 (35) Lisa wants JOHN to teach syntax on Tuesdays and Thursdays.  
 “John teaching syntax on Tu & Th is more desirable to Lisa in  $w_0$  than some other alternative person teaching syntax on Tu & Th.” ⇒ NOT TRUE in (33)

■ Dretske (1972) and Boër (1979) noted that verbs like *believe* and *say* do not display this focus sensitivity. Villalta (2008) generalizes the claim to other weak intensional verbs, arguing that focus is evaluated at the matrix level here.

- (36) Tom believes that Bob KISSED Alice.  
 “It is kissing that Tom believes Bob did to Alice.”  
 (37) Tom believes that Bob kissed ALICE.  
 “It is Alice that Tom believes Bob kissed.”

■ Villalta's (2008) generalization:

- (38) Verbs selecting SUBJUNCTIVE are focus sensitive.  
 Verbs selecting INDICATIVE are not focus sensitive.

■ Villalta's (2008) analysis:

- Strong intensional verbs establish a comparison among focus alternatives using  $>_{OS}$ . Thus, they have an extra argument: a non-singleton set  $C$  of focus alternatives. In contrast, weak intensional verbs do not operate on focus alternatives and do not have argument  $C$ .

$$(39) \llbracket x \text{ wants}_C p \rrbracket = \lambda w_0. \forall w \in \cap \text{Dox}_x(w_0) \forall q \in C [q \neq p \rightarrow [\text{Sim}_w(p) >_{\text{Bou}_x(w_0)} \text{Sim}_w(q)]]$$

$$(40) \llbracket x \text{ believes } p \rrbracket = \lambda w_0. \forall w \in \cap \text{Dox}_x(w_0) [p(w)=1]$$

[Villalta's non-final version]

- SUBJUNCTIVE mood takes the focus alternatives of the embedded clause and passes them to the embedding verb.

$$(41) \llbracket \text{SUBJ}_C \text{ IP} \rrbracket \text{ is only defined if: } C \subseteq \llbracket \text{IP} \rrbracket_{\text{ALT}} \text{ and } |C| > 1.$$

- INDICATIVE mood prevents the focus alternatives of the embedded clause to be passed up to the embedding verb.

$$(42) \llbracket \text{IND}_C \text{ IP} \rrbracket \text{ is only defined if:}$$

if there is a  $C$  on the embedding verb, then  $C = \{\llbracket \text{IP} \rrbracket\}$ .

■ Problem: some verbs selecting INDICATIVE, e.g. *adivinar* ‘guess’, *responder* ‘answer’, show focus sensitivity.

- (43) Scenario: Ann participated in a TV show where, for each question asked, she had to quickly provide as many true answers as possible. One of the first questions asked was in what places in town one can buy the Spanish newspaper ElPaís. She correctly answered that one can buy it at the station, at the hospital, at the university, etc. Later, when she was already very tired, she was asked what foreign newspapers one can buy at the station. She mentioned The NY Times, Le Figaro and others, but she forgot to mention ElPaís.

$$(44) \text{ Ann guessed that one can buy ElPaís AT THE STATION.} \Rightarrow \text{TRUE in (43)}$$

$$(45) \text{ Ann guessed that one can buy ELPAÍS at the station.} \Rightarrow \text{NOT TRUE in (43)}$$

■ A further limitation: her analysis does not extend to mood in conditional sequences. Focus sensitivity is found in conditionals regardless of whether they appear in the subjunctive, as in (31)-(32), or in the indicative, as in (47)-(48).

- (46) Scenario: Ted is deeply in love with Alice but does not believe in matrimony. Ted's father left a clause in his will stipulating that Ted can only receive his inheritance if he is married within a month from today.

$$(47) \text{ If Ted doesn't MARRY Alice, he will lose his inheritance.} \Rightarrow \text{TRUE in (46)}$$

$$(48) \text{ If Ted doesn't married ALICE, he will lose his inheritance.} \Rightarrow \text{FALSE in (46)}$$

### 3. VON FINTEL'S (1997) ANALYSIS OF INDICATIVE AND SUBJUNCTIVE CONDITIONALS

- (49) If John went to the party yesterday, it was fun. INDICATIVE ((8a))
- (50) If John had gone to the party yesterday, it would have been fun. SUBJUNCTIVE ((8b))

■ Antecedent falsity (i.e., counterfactuality) is not “hard-wired” in Subjunctive *had-would* conditionals, that is, it is not an entailment or presupposition of these conditionals:

- (51) Scenario: The doctor is trying to figure out what Jones took. Doctor says (52).
- (52) If Jones had taken arsenic, he would be showing the symptoms that he is in fact showing. So, it is quite probable that he took arsenic. (=Anderson 1951)

⇒ Thus, subjunctive in conditionals does not express antecedent falsity, but sth weaker.

■ von Fintel's (1997) proposal for mood in conditionals (slightly modified):  
D: domain of worlds quantified over.<sup>2</sup> CG: Common Ground.

- |      |  |
|------|--|
| (53) | INDICATIVE conditionals have this natural pragmatic constraint: $D \subseteq CG$ |
|      | SUBJUNCTIVE conditionals presuppose: $D \not\subseteq CG$                        |

■ INDICATIVE:

- (54) If John went to the party yesterday, it was fun.  
 $\lambda w_0. \forall w \in \text{Sim}_{w_0}(\lambda w'. \text{John went to party in } w')$  [ the party was fun in  $w$  ]

↳ INDICATIVE signals that this set is a subset of the CG. For that to be true, the antecedent clause *John went to the party* must be compatible with the CG.

■ CASE 1 of SUBJUNCTIVE: antecedent falsity.

- (55) If John had gone to the party yesterday, it would have been fun.  
 $\lambda w_0. \forall w \in \text{Sim}_{w_0}(\lambda w'. \text{John went to party in } w')$  [ the party was in  $w$  ]

↳ SUBJUNCTIVE signals that this set is *not* a subset of the CG. One way for this presupposition to be satisfied is this: the antecedent clause *John went to the party* is simply incompatible with the CG.

<sup>2</sup> D is the Modal Base selected for each  $w$  in von Fintel's strict conditional analysis of conditionals. We use Lewis' (1973) variably strict analysis instead and take D to be the final set of worlds that make the *if*-clause true and are otherwise most similar to those in the Modal Base. The formulas in (54)-(57) are my implementation.

■ CASE 2 of SUBJUNCTIVE: subjunctive passages.

- (56) If Polly had come to dinner tonight, we would have had a good time. If Uli had made the same amount of food that he in fact made, she would have eaten most of it.
- (57) If Uli had made the same amount of food that he in fact made, she would have eaten most of it.  
 $\lambda w_0. \forall w \in \text{Sim}_{w_0}(\lambda w'. \text{Polly came to dinner in } w')$   
 $\forall w' \in \text{Sim}_w(\lambda w''. \text{Uli made (actual) amount of food in } w'')$  [ party was in  $w'$  ]

↳ SUBJUNCTIVE signals that this set is *not* a subset of the CG. A second way to satisfy this presupposition is this: the antecedent clause *Uli had made the same amount of food that he in fact made (=p)* is in fact true in CG, but  $\text{Sim}_w(p)$  ends up selecting a non-subset of the CG due to modal subordination.

### 4. TOWARDS A PROPOSAL.

■ Idea: von Fintel's proposal understood as making a distinction between (natural) contextual domain restrictions vs. widened domains, applied to mood in complement clauses.

- |      |                                      |   |  |
|------|--------------------------------------|---|--|
| (58) | $D \subseteq CG$ for INDICATIVE      | ⇒ | Regular contextual restriction over the world domain of quantification       |
|      | $D \not\subseteq CG$ for SUBJUNCTIVE | ⇒ | Widening of the world domain of quantification (basically, $CG \subset D$ ). |

■ When conditionals are embedded, we have a "local" CG:  $\cap \text{Dox}_x(w_0)$ .

- (59) Mary doesn't know that John didn't go to the party, and she said / thinks [that, if John went, the party was fun].
- (60) Mary wrongly believes that John didn't go to the party, and she said / thinks [that, if he had gone, the party would have been fun.]

■ INDICATIVE complement clauses: INDICATIVE signals that the embedded proposition is only defined for worlds in the local CG, i.e.  $\text{Dox}_x(w_0)$ .

- (61) Bea believes [that John teaches-IND semantics].  
a.  $[\lambda w': w' \in D_{\cap \text{Dox}_{\text{bea}}(w_0)}. \text{John teaches semantics in } w']$   
b.  $\lambda w_0. \forall w [w \in \cap \text{Dox}_{\text{bea}}(w_0) \rightarrow [\lambda w': w' \in D_{\cap \text{Dox}_{\text{bea}}(w_0)}. \text{John teaches sem in } w'](w)]$

■ SUBJUNCTIVE complement clauses: SUBJUNCTIVE signals that the embedded proposition is *not* only defined for worlds in the local CG, i.e.  $\text{Dox}_x(w_0)$  or the actual CG.

- (62) Bea wishes / wants [that John teaches-SUB semantics].  
a.  $[\lambda w': w' \in D_{\neq \text{Dox}_{\text{bea}}(w_0)}. \text{John teaches semantics in } w']$

■ First batch of SUBJUNCTIVE complement clauses: "wish", factive-emotives, causatives.

(63)  $\llbracket x \text{ wishes } p \rrbracket$   
 =  $\lambda w_0: \forall w \in \cap \text{Dox}_x(w_0) [\neg p(w)].$   
 $\forall w \in \cap \text{Dox}_x(w_0) [ \text{Sim}_w(p) >_{\text{Bou}_x(w_0)} \text{Sim}_w(\neg p) ]$   
 = Presupposition: in  $x$ 's beliefs worlds in  $w_0$ ,  $p$  is false.  
Assertion: we are in a world  $w_0$  such that, for every belief world  $w$  of  $x$  in  $w_0$ : every  $p$ -world maximally similar to  $w$  is more desirable to  $x$  in  $w_0$  than any non- $p$ -world maximally similar to  $w$ .

↳ For  $\text{Sim}_w(p)$  to be defined,  $p$  has to have the shape in (62a), that is, its domain cannot be a subset of  $\cap \text{Dox}_x(w_0)$ .

(64)  $\llbracket x \text{ regrets } p \rrbracket$   
 =  $\lambda w_0: \forall w \in \cap \text{Dox}_x(w_0) [p(w)].$   
 $\forall w \in \cap \text{Dox}_x(w_0) [ \text{Sim}_w(\neg p) >_{\text{Bou}_x(w_0)} \text{Sim}_w(p) ]$   
 = Presupposition: in  $x$ 's beliefs worlds in  $w_0$ ,  $p$  is true.  
Assertion: we are in a world  $w_0$  such that, for every belief world  $w$  of  $x$  in  $w_0$ : every non- $p$ -world maximally similar to  $w$  is more desirable to  $x$  in  $w_0$  than any  $p$ -world maximally similar to  $w$ .

↳ For  $\text{Sim}_w(\neg p)$  to be defined,  $\neg p$ , and thus also  $p$ , has to have the shape in (62a), that is, its domain cannot be a subset of  $\cap \text{Dox}_x(w_0)$ .

(65)  $\llbracket q \text{ CAUSE } p \rrbracket$  (roughly)  
 =  $\lambda w_0: q(w_0) \wedge p(w_0). \forall w \in \text{Sim}_{w_0}(\neg q) [\neg p(w)]$   
 = Presupposition:  $q$  and  $p$  are both true in  $w_0$ .  
Assertion: we are in a world  $w_0$  such that: in every non- $q$ -world maximally similar to  $w_0$ , not- $p$  is the case in that world.

↳ For  $\neg p(w)$  to be defined,  $\neg p$ , and thus also  $p$ , has to have the shape in (62a), that is, its domain cannot be a subset CG.

In all these cases, we need to use both  $p$  and  $\neg p$ , and one of the two is false in the local CG. von Fintel's CASE 1.

■ Second batch of SUBJUNCTIVE complement clauses: *want* and *alike*.

- First try:

(66)  $\llbracket x \text{ wants } p \rrbracket$   
 =  $\lambda w_0: \exists w \in \cap \text{Dox}_x(w_0) [p(w)].$   
 $\forall w \in \cap \text{Dox}_x(w_0) [ \text{Sim}_w(p) >_{\text{Bou}_x(w_0)} \text{Sim}_w(\neg p) ]$   
 = Presupposition:  $p$  is compatible with what  $x$ 's believes in  $w_0$ .  
Assertion: we are in a world  $w_0$  such that, for every belief world  $w$  of  $x$  in  $w_0$ : every  $p$ -world maximally similar to  $w$  is more desirable to  $x$  in  $w_0$  than any non- $p$ -world maximally similar to  $w$ .

↳ For  $\text{Sim}_w(p)$  and  $\text{Sim}_w(\neg p)$  to be defined, it is enough for  $p$  to have the INDICATIVE shape in (61a)!!!

- Revising  $\cap \text{Dox}_x(w_0)$ :

(67) Villalta (2008) on practical inferences:  
 a. I want to teach Tuesdays and Thursdays next semester.  
 b. I believe that I will teach Tu and Th next semester if and only if I work hard now.  
 c. Invalid inference: I want to work hard now.

(68) Scenario: Ann wants to teach Tu and Th next semester. She wants not to work hard now. These two desires are incompatible with each other in her belief worlds, that is, she knows that she teaches on Tu and Th next semester iff she works hard now.

(69) Ann wants to work hard now.  $\Rightarrow$  FALSE in scenario (68).

(70) Scenario: Ann wants to teach Tu and Th next semester. She does not have any particular preference about her lunch time next semester. She finds out that, for her to teach Tu & Th next semester, she would have to have lunch at 1pm. Her secretary comes and asks Ann when she wants to have lunch next semester. Ann answers (71).

(71) I want to have lunch at 1pm next semester.  $\Rightarrow$  TRUE in scenario (70).

- Second try:

(72) Idea:  $x$  wants  $p$  involves a *revision* of  $x$ 's beliefs worlds as to eliminate incompatibilities between different desires.  $x$  wants  $p$  means " $x$  prefers her revised-belief  $p$ -worlds over her revised-belief non- $p$ -worlds".

(73)  $\text{Rev}_{\text{OS}}(\text{MB}) = \text{MB} - \{ [\lambda w'. r_1(w')=1 \Leftrightarrow r_2(w')=0] : r_1 \neq r_2 \wedge r_1 \in \text{OS} \wedge r_2 \in \text{OS} \}$

(74)  $\llbracket x \text{ wants } p \rrbracket =$   
 $\lambda w_0: \exists w \in \cap \text{Dox}_x(w_0) [p(w)].$   
 $\forall w \in \cap (\text{Rev}_{\text{Boux}(w_0)}(\text{Dox}_x(w_0))) [ \text{Sim}_w(p) >_{\text{Bou}_x(w_0)} \text{Sim}_w(\neg p) ]$

↳ Since some worlds  $w$  are already out of  $\cap \text{Dox}_x(w_0)$ , for  $\text{Sim}_w(p)$  to be defined,  $p$  has to have the shape in (62a), that is, its domain cannot be a subset of  $\cap \text{Dox}_x(w_0)$ .

In this case,  $p$  and  $\neg p$  are compatible with the local CG, but we need to compute  $\text{Sim}_w(p)$  for worlds  $w$  already outside the "local" CG, as if we had Modal Subordination. von Fintel's CASE 2

## 5. CONCLUSIONS AND FURTHER ISSUES.

- Elaborating on von Stechow's (1997) analysis of conditionals, we have proposed that mood distribution in complement clauses in Spanish and other Romance languages is determined by the domain of the embedded proposition  $p$ , which in turn is minimally determined by the inherent semantics of the embedding predicate.

(75)

Embedding verbs	Domain / Definedness of $p$	Mood of $p$
Weak intensional verbs, which simply quantify over the worlds of the local CG (=MB).	$p$ is defined only for the worlds in the local CG: $\text{Dom}(p) \subseteq \text{local CG}$	$p$ -IND
Strong intensional verbs: CASE 1: <i>Wish</i> , factive-emotives, causatives: $p$ (or $\neg p$ ) is incompatible with local CG and we need to quantify over worlds where $p$ (or $\neg p$ ) is true. CASE 2: <i>Want</i> and alike: $p$ is compatible with local CG but we are already quantifying beyond the worlds in CG.	$p$ is defined beyond the worlds of the local CG: $\text{Dom}(p) \not\subseteq \text{local CG}$	$p$ -SUB

### ■ Future work:

- directives, dubitatives, and modal verbs
- disentangling proper SUBJ mood and fake past tense in conditionals (Iatridou 2000)

- In its present shape, the sketched analysis can be seen as a particular implementation (à la Kadmon and Landman 1993, Kratzer and Shimoyama 2002) of the idea that subjunctive is a polarity item (cf. Brugger and D'Angelo 1994, Giannakidou 1995).

(76) elpízo na férís kanénan filó su sto párti [Greek]  
I-hope **SUB**-you-bring **any** friend yours in-the party  
'I hope you'll bring a friend of yours to the party.'

(77) \*oniréftika oti írthe kanénas [Greek]  
I-dreamt that-**IND** came **anyone**  
'I dreamt that someone came.'

(78)

Domain of propositions	Domain of indefinites
$p$ -IND $\text{Dom}(p) \subseteq \text{local CG}$	$a_D$ student
$p$ -SUB $\text{Dom}(p) \not\subseteq \text{local CG}$	$any_D$ student, where $D \subset D'$

- A comparison with analyses where subjunctive is simply the unmarked / default case is left for future research.

(79) Leahy's (2011) analysis of mood in conditionals:

INDICATIVE:  $\Diamond_{\text{epis}} p$

SUBJUNCTIVE: --

(80) Schlenker's (2005) analysis of mood in complement clauses:

INDICATIVE:  $p$  is defined only for the worlds of a relevant C(ontext) S(et).

SUBJUNCTIVE: --

### ■ Other open issues:

- Crosslinguistic variation and diachronic development of mood selection
- Polarity subjunctive: (81).

(81) Juan **no** dijo que estaba-**IND** / estuviese-**SUBJ** enfermo.

Juan not said that he-was-IND / he-was-SUB sick

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