

Root phenomena and verbal mood at the syntax-semantics interface

Hubert Truckenbrodt, ZAS, September 2, 2009

Bolinger 1968: Correlation of English 'postposed main phrases' with Spanish indicative

- (1) If we find
a. I believe they're ready. and
b. They're ready, I believe.
then we find **Spanish indicative** in the embedded clause:
c. Creo [que **están** listos]
- (2) If we find
a. I don't believe they're ready. and
b. * They're ready, I don't believe.
then we find **Spanish subjunctive** in the embedded clause:
c. Creo [que **estén** listos]

Meinunger 2004: Correlation of German V2 with Romance (Spanish) indicative

- (3) a. Creun [que en Miquel **treballa**]
'They believe that Miquel works-IND.'
b. Sie glauben, Michael arbeitet. V2-clause
'They believe that Michael works.'
- (4) a. Ana lamenta [que pro **tenga** tanto trabajo]
'Ana regrets that she has-SUBJ so much work.'
b. * Anna bedauert, sie *hat* so viel Arbeit. V2-clause
'Anna regrets that she has so much work.'
c. Anna bedauert, dass sie so viel Arbeit hat. dass-clause
'Anna regrets that she has so much work.'

On embedded V2, see also Helbig and Kempter 1974, Reis 1997, Heycock 2006, Truckenbrodt 2006a, b and others.

Comparison of German V2-clauses with French indicative

- (5) a. Lukas sagt/glaubt/träumt/stellt sich vor, Lisa *ist* da. V2-clause
b. Lukas sagt/glaubt/träumt/stellt sich vor, *dass* Lisa da ist. *dass*-clause
'Lukas says/believes/dreams/imagins that Lisa is there.'
- (6) a. * Es ist möglich/wahrscheinlich//Lukas will, Lisa *ist* hier. V2-clause
b. Es ist möglich/wahrscheinlich//Lukas will, *dass* Lisa hier ist. *dass*-clause
'It is possible/likely//Lukas wants, that Lisa is here.'
- (7) a. * Lukas fordert, Lisa *kommt* zurück. V2-clauses
b. Lukas fordert, *dass* Lisa zurückkommt. *dass*-clauses
'Lukas demands that Lisa returns.'

- (8) Jean dit/pense/rêve, que Léa est-IND là.
'Jean says/believes/dreams, that Léa is there.'
- (9) C'est possible//Luc veut/préfère, que Léa *est-IND/√soit-SUBJ là.
'It's possible//Luc wants/prefers, that Léa is there.'
- (10) Luc demande que Léa *revient-IND/√revienne-SUBJ
'Lukas demands that Léa returns.'

See Hawkins and Towell 1996, Lalaire 1998, Schlenker 2005 on French, Giorigi and Pianesi 1997 on variation in Romance, Quer 1998 on Catalan, Villalta 2008 on Spanish.

---> As observed by Meinunger, here for French: V2 object clauses occur under predicates that select indicative in French (Romance).

Relative clauses: V2 vs. French verbal mood

- (11)a. Le touriste [à qui j'ai-IND parlé] vient de Québec (Hawkins and Towell 1996:356)
 b. Der Tourist [mit dem ich gesprochen *habe*] kommt aus Quebec. V-final rel.
 c. * Der Tourist [mit dem *habe* ich gesprochen] kommt aus Quebec. V2 rel.
 'The tourist [whom I have spoken to] comes from Quebec.'
- (12)a. Il n'y a personne [qui *vient-IND* me voir] (Lalaire 1998:320)
 b. Es gibt niemanden [der mich besuchen *kommt*] V-final rel.
 c. * Es gibt niemanden [der *kommt* mich besuchen] V2 rel.
 'There is nobody who comes to see me.'

Normal German relative clause are V-final and can be embedded; of interest here is a less usual sentence type, relative clauses with V2, possible in colloquial German. They arguably exist, but they arguably cannot be embedded; points and arguments from *Gärtner 2000*.

German V2 rel.-clauses exist

The V2 relative clause has the same shape as a V2 declarative with an initial d-pronoun (a kind of demonstrative) in SPEC,CP:

- (13) Das Blatt hat [eine Seite]_i und [die_i ist ganz schwarz] coord. of declaratives
 'The sheet has one side, and that is entirely black.'
 (scalar implicature: the sheet has only one side; odd;

Semantic facts show the integration of the V2-relative into the host clause (most plausible analysis: the V2-relative binds a trace in relative-clause position)

- (14) *V2-relative: scalar implicature calculated on [NP + V2-rel.-clause]*
 Das Blatt hat [eine Seite]_i [die_i ist ganz schwarz] V2-rel.
 'The sheet has one side, that is entirely black.'
 (scalar implicature: the sheet has only one entirely-black side;

- (15) *'One'-substitution for [NP + V2-rel.-clause]*
 Hans kennt einen Philosophen [der mag Achternbusch] V2-rel.
 und Maria kennt auch einen.
*'Hans knows a philosopher [who likes Achternbusch]
 and Mary knows one too.'*
reading: einen = a philosopher who likes Achternbusch.
- (16) *Focus particle 'sogar', 'even', takes scope over [NP + V2-rel.-clause]*
 a. Ich kenne sogar Leute, die lesen CHOMSKY's Bücher. V2-rel.
'I even know people who read CHOMSKY's books.'
 b. Note: 'sogar', 'even', does not require surface-scope
 HANS hat das sogar gesagt.
'Even HANS has said that.'
- German V2 rel.-clauses cannot be embedded!*
- (17) *V2-relatives must occur at the end of the host clause; they cannot be medial*
 a. Dies war ein Tag,
 an dem wir [etwas] erlebt haben [das uns irritierte] V-final rel.
V2-rel.
 [das irritierte uns]
 b. Dies war ein Tag,
 an dem wir [etwas] [das uns irritierte] erlebt haben V-final rel.
V2-rel.
 * [das irritierte uns]
'This was a day, on which we had experienced something that irritated us.'
- (18) *V2-relatives cannot occur in the scope of a negative quantifier*
 a. Niemand kennt einen Linguisten [der über Toba Batak gearbeitet hat] V-f. rel.
 b. * Niemand kennt einen Linguisten [der hat über Toba Batak gearbeitet] V2-rel.
'Nobody knows a linguist who has worked on Toba Batak.'
- (19) *V2-relatives cannot restrict a definite (or universal) DP*
 a. Ich kenne den Linguisten [der über Toba Batak gearbeitet hat] V-f. rel.
 b. * Ich kenne den Linguisten [der hat über Toba Batak gearbeitet] V2-rel.
'I know the linguist who has worked on Toba Batak.'

French relative clauses: definite relatives almost always take indicative, see (11a), (12a).
 Indefinite relatives in the scope of a modal shift sometimes take subjunctive, see below.

---> Indicative in French relatives allow embedding of the relative clause; V2 in German relative clauses does not allow embedding of the relative clause.

Adjunct clauses: V2 vs. French verbal mood

- (20) *parce que + indicative can be embedded (here: in the scope of negation)*
 Pierre boit cette mixture, parce qu'elle est bonne.
 Il ne la boit pas parce qu'elle est-IND belle. NEG >> CAUSE_{IND}
*'Pierre drinks this mixture because it is good.
 He doesn't drink it because it is pretty.'*

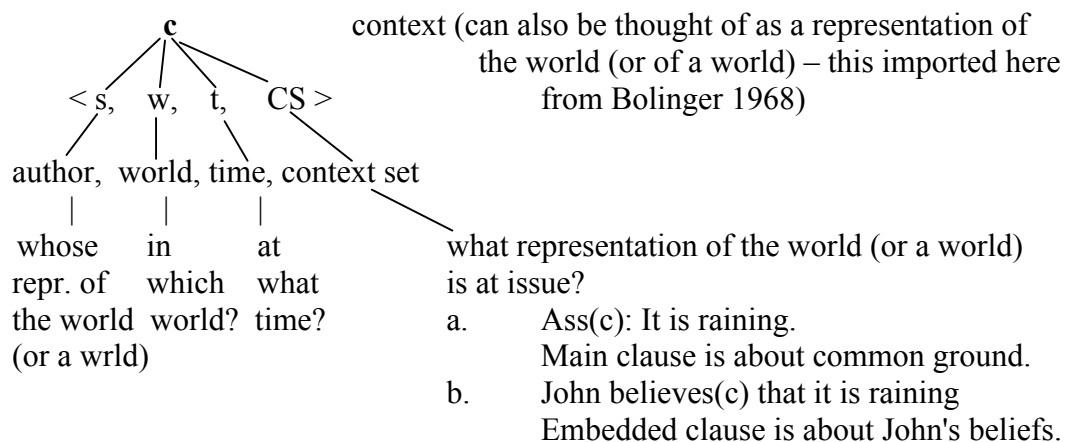
- (21) *[weil + V-final]* can be in the scope of matrix negation
 Peter trinkt die Mixtur, weil sie gut schmeckt.
 Er trinkt sie nicht, weil sie gut aussieht. NEG >> CAUSE_{V-FIN}
 'Peter drinks the mixture because it tastes good.'
 'He doesn't drink it because it looks good.'
- (22) *[weil + V2]* and *[denn + V2]* can not be embedded; here: in the scope of negation
 (Gärtner 2000, Heycock 2006)
 Peter trinkt die Mixtur, weil sie gut schmeckt.
 a. # Er trinkt sie nicht, weil sie *sieht* gut aus. * NEG >> CAUSE_{V2}
 b. # Er trinkt sie nicht, denn sie *sieht* gut aus. * NEG >> CAUSE_{V2}
 'Peter drinks the mixture because it tastes good.'
 'He doesn't drink it because it looks good.'

Notice that German V2 object clauses are embedded:

- (23)a. Jeder₁ glaubt [er₁ ist im Recht]
 'Everyone₁ thinks, he₁ is right.'
 b. Soll mal niemand₁ sagen [er₁ hat keine Zeit gehabt]
 'Nobody₁ should say that he₁ didn't have time.'
 c. Wer₁ hat gesagt [er₁ braucht Hilfe]?
 'Who₁ said [he₁ needs help]?'
 ---> V2 in relative clauses and adjunct clauses prevents their embedding. French indicative in relative clauses and adjunct clauses does not prevent their embedding.

Analysis of the French indicative following Schlenker

- (24) Kaplanian contexts (Kaplan 1989) represented as indices in the syntax (Schlenker 2003) and augmented with a context set (Stalnaker 1978, 1988), see Schlenker 2003, 2005.



(25) As an intuition, one may think of a context as that which is shifted in free indirect discourse (see Sharvit 2004)

S to A: Mary arrived and looked around.
She would meet all these people (she thought).

(26) - Following ongoing work by Frank Sode, I take these contexts to be parameters of speech acts: Ass(c), Question(c), ...

where author(c) is the one doing the asserting/questioning

world(c) is the world of asserting/questioning

time(c) is the time of asserting/questioning

CS(c) is the common ground of author(c) and the addressee.

- Following Schlenker 2005, I take them to also be parameters of attitude verbs

believe(c), say(c), ...,

for x believes(c) p :

x is author(c)

word(c) is the word of the belief

time(c) is the time of the belief

CS(c) are the beliefs of author(c) in world(c) at time(c).

(27) Among the attitude verbs, there is a class that can be semantically construed as having the primary meaning of placing p in CS(c):

x believes p : the beliefs of x include p

x says p : what x says includes p

x dreams p : x 's dream includes p .

Other attitude verbs have more complex modal meanings; for example

x wants p : states a preference by x of worlds in which p holds relative to world in which p does not hold (Heim 1983, see also Villalta 2008)

x requires p of y : x puts y under an obligation to bring about p .

The first class are here taken to be the ones that embed French indicative / German V2 in object clauses (see Schlenker 2005, Truckenbrodt 2006a, b).

(28) I adopt the meaning of the French indicative from Schlenker 2005, which has the effect of restricting the occurrence of the French indicative to the first class of verbs in (27).

Indikative[c](p) requires an antecedent for [c] such that p is about the representation CS(c)

$$\Box \text{il pleut-IND}[c] \Box^g = \lambda w. w \in \text{CS}(g([c])): \text{pleut}(w) \quad (\text{Schlenker 2005})$$

(29) Jean pense[c] [qu'il pleut-IND[c]] 'John thinks that it is raining.'

|
antecedent for IND[c] satisfies presupposition of IND[c] since the verb's meaning says that 'it's raining' is part of what John believes (= CS(c)).

$$\Box \text{Jean pense}[c] [\text{qu'il pleut-IND}[c]] \Box^g = \lambda w. \text{beliefs}(w)(\text{jean}) = \text{CS}(g(c)): \forall w_1 \underline{w_1 \in \text{CS}(g(c))} \rightarrow \text{pleut}(w_1) \text{ defined if } \underline{w_1 \in \text{CS}(g(c))}$$

(30) Unembedded: context of assertion operator is antecedent for **IND[c]**.

ASS[c] Il pleut-**IND[c]** 'It is raining.'

|
antecedent for **IND[c]** satisfies presupposition of **IND[c]** so long as **ASS[c]**
predicates p of the common ground = CS(c)

Speaker seeks to achieve: $\forall w_1 \underline{w_1 \in CS(g(c))} \rightarrow \text{pleut}(w_1)$
defined if $\underline{w_1 \in CS(g(c))}$

Analysis of the difference between French indicative and German V2

>> Like French indicative (**IND[c]**), German V2 involves a syntactic hidden 'pronoun' [c], here **v2[c]**. **v2[c]** has the same semantic interpretation as **IND[c]**.

>> **v2[c]** is the syntactic trigger for V2 in German

>> importantly, **v2[c]** has different binding properties from **IND[c]**:

>> French **IND[c]** can be bound like a personal pronoun at a distance

>> German **v2[c]** requires a local antecedent like a relative pronoun.

(31) *Object clauses (local antecedent)*

a. Jean pense[c] [qu'il pleut-**IND[c]**] 'Jean thinks that it is raining.'

b. Hans glaubt[c] [**v2[c]** es regnet]] 'Hans thinks that it is raining.'

|
presupposition: 'that it is raining' is about the representation CS(c)
(here: what Hans believes)

(32) *Unembedded (local antecedent)*

a. **Ass[c]** Il pleut-**IND[c]**

b. **Ass[c]** [**v2[c]** Es regnet]

|
presupposition: 'that it is raining' is about the representation
CS(c) (here: the common ground)

(33) *Relative clauses (non-local antecedent)*

a. **Ass[c]** Le touriste [à qui j'ai-**IND[c]** parlé] vient de Québec

b. * **Ass[c]** Der Tourist [**v2[c]** mit dem habe ich gesprochen] kommt aus Quebec.

'The tourist [whom I have spoken to] comes from Quebec.'

(34) **Ass[c']** Dies war ein Tag, an dem wir [etwas] erlebt haben

Ass[c] [**v2[c]** das irritierte uns]

'This was a day, on which we had experienced something
that irritated us.'

-> V2 relative clauses are possible only as independent assertions, where a [c] in **ASS[c]** locally binds **v2[c]**.

(35) *Adjunct clauses (non-local antecedent)*

a. **Ass[c]** Il ne la boit pas [parce qu'elle est-**IND[c]** belle] NEG >> CAUSE_{IND}

b. **Ass[c]** Er trinkt sie nicht [denn [**v2[c]** sie sieht gut aus] * NEG >> CAUSE_{IND}

'He doesn't drink it because it is pretty.'

- (36) **Ass[c']** Ich muss nach Hause [denn **Ass[c]** [**v2[c]** es ist spät]
'I have to go home, for it is late.'

-> V2 adjunct clauses are likewise possible only as independent assertions, where a [c] in ASS[c] locally binds v2[c].

Confirmation that German v2[c] has the binding properties of relative pronouns:

- (37) *locality requirements on relative pronouns tolerate extraposition:*

- a. Hans wird geglaubt[**c**] haben [**v2[c]** es regnet]
 Hans will believed have it rains
'Hans will have believed that it is raining.'
- b. Ich habe das Buch[**i**] gefunden, [das[**i**] du gesucht hast]
 I have the book found that you searched have
'I have found the book that you have looked for.'

- (38) *'Strict precedence 'antecedent before relative pronoun' is required:*

- a. * [**v2[c]** es regnet] hat nur Hans geglaubt[**c**]
 it rains has only Hans believed (s. Brandt et al. 1992, Reis 1997)
- b. cf.: [dass es regnet] hat nur Hans geglaubt[**c**]
 that it rains has only Hans believed
- c. * [das du gesucht hast] habe ich das Buch gefunden
 that you searched have have I the book found

Confirmation that French IND[c] has the binding properties of a personal pronoun

Modal shift interrupts the distance of binding -> Presupp. of indicative is no longer fulfilled
 -> Subjunctive is used.

- (39)a. **Ass[c]** Luc a-IND[c] une maison [qui a-IND[c] un grand jardin] (Lalaire 1998:153)
'Luc has a house that has a large garden.'

- b. **Ass[c]** Luc **cherche**-IND[c] une maison [qui ait-SUBJ[**e**] un grand jardin]
'Luc is looking for a house that has a large garden.'

- (40) **Ass[c]** Il promenait la poussette le long du lac, **pour que** le bébé prenne- SUBJ[**e**] l'air.
'He was pushing the push-chair along beside the lake so that the baby could breathe the air.'

(Hawkins and Towell 1996:396)

Summary

- Parallel between French indicative and German V2: object clauses are limited to similar verb classes. This can be approached by extending Schlenker's 2005 semantic proposal for French indicative to German V2: A hidden context pronoun requires an antecedent with a certain meaning, which it can find in connection with a higher verb or speech act.
- Difference between French indicative and German V2: non-embeddability of German V2 relative clauses and adjunct clauses. This can be approached by maintaining that the hidden context pronoun has different locality requirements on its antecedent.

More general perspective

Verbal mood and root phenomena have similar interpretations: presuppositions over hidden context 'pronouns'. These hidden pronouns differ in the locality of their binding properties: Verbal mood: non-local binding; the context pronouns behave like personal pronouns. Root phenomena: local binding; the context pronouns behave like relative pronouns.

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