

Workshop on Direct Compositionality
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Condition B: A note on Jacobson's Paper
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1. Jacobson's Proposal (simplified)

1. There is a syntactic constraint (a local one) that blocks pronouns from combining directly with (two place) predicates.
2. This constraint is obviated by an operation that applies to the predicate.
3. This operation affects the meaning of the predicate in a way that makes it incompatible with a reflexive interpretation.

(1) $p' = \lambda v_{\langle e, et \rangle}. \lambda x. \lambda y: x \neq y. v(x)(y)$

(2) Jacobson's Principle B: a verb can't combine with a pronoun, but [p v] can.

I think there is a need for another constraint:

- (3) p can only apply to lexical items. I.e., it cannot apply to shifted transitive verbs (e.g., those that take GQs as arguments) or to complex transitive verbs.
- (4) I p([want \circ Mary_i \circ to \circ talk \circ to]) her_i

2. Reinhart and Reuland (take 1)

R&R's Principle B: A semantically reflexive predicate has to be reflexive marked.

- (5) a. We elected me.
 b. *We each voted for me.
- (6) a. John Bill and Mary_i elected her_i.
 b. *John Bill and Mary_i each voted for her_i.

The (a) sentences are interpreted collectively, and there is therefore no semantically reflexive predicate, hence no violation of R&R's condition B.

The (b) sentences are interpreted distributively. The predicates are semantically reflexive yet they are not reflexively marked. Consequently condition B is violated.

The intuition is pretty clear, but R&R do not provide us with a good definition of the term "semantically reflexive predicate". I think that a definition would be pretty involved:

Let, v , be a transitive verb and S be the minimal sentence that dominates v . S is semantically reflexive if S entails a sentence of the form “ $x v x$ ”, (which is itself not a tautology).

Also would need to explain, why “no man praised him” violates condition B (or “No man praised zich” in Dutch, see below). There is a way out, I think, but it is pretty complex.

3. Jacobson's Improvement

The story under Jacobson's proposal is totally straightforward:

In (5)a, we get the presupposition that the speaker is not identical to the salient set in the context that the speaker belongs to ($m_c \neq w_c$). This presupposition is met since an individual is not identical to a (non-singleton) set.

$$(5)'a [We elected me]' = (p(elected'))(me')(we') = \\ \lambda w: m_c \neq w_c. \\ w_c \text{ elected } m_c.$$

In (5)b, there is universal quantification. A universal quantifier presupposes that every member in its restrictor satisfies the presupposition of the scope (see Heim, Beaver). Hence we get the presupposition that each member of w_c is non-identical to m_c , which, of course, isn't met.

$$(5)'b [We each voted for me]' = [We each]' (p(elected'))(me') = \\ \lambda w: \text{For each member, } x, \text{ of } w_c, x \neq m_c \\ \text{each member of } w_c \text{ voted for } m_c.$$

4. Caveat

- (7) Speaker A: Let me tell you something about Carter. Every one voted for him.
 Speaker B: That's not true, Carter didn't vote for himself. (Heim, pc)

Similar to Jacobson's

- (8) Every man believes that no man praised him.

This is a problem for both Reinhart and Reuland and for Jacobson, and I will put them aside.

5. Raising to Object/ECM

- (9) a. *John_i wants him_i to win the prize.
 b. *John_i expects him_i to win the prize.
 c. *John_i believes him_i to have won the prize.

Conclusion: Either the accusative element is a *semantic* object of the ECM verb (as in (10)) or a non-local constrain is needed (in addition to Jacobson's constraint).

- (10) $\text{want}_{\text{ECM}}' = \lambda x. \lambda P_{\langle s, \text{et} \rangle}. \lambda y. \text{for all } w \text{ compatible with } y's \text{ desires},$
 $P(w)(y)=1.$

6. Reinhart and Reuland (take 2): the need for a non-local structural constraint

Preliminaries: Dutch *zich*

- (11) a. *Max_i haat zich_i.
 May hates zich.
 b. *Max_i haat hem_i.
 c. Max_i haat zichzelf_i.

Conclusion: *zich*, just like a pronoun, is subject to Condition B.

- (12) Jacobson's Principle B (minor modification):
 a verb can't combine with a pronoun or *zich*, but [p v] can.

- (13) $p' = \lambda v_{\langle e, \text{et} \rangle}. \lambda x. \lambda y: x \neq y. v(x)(y)$

The argument:

- (14) a. Henk_i horde [zich_i zingen]. (R&R 109)
 Henk heard [zich sing].
 b. *Henk_i overreedde zich_i [PRO_i zingen].
 Henk persuaded zich [PRO to-sing].
- (15) a. *Henk_i horde [hem_i zingen].
 b. *Henk_i heard [him_i sing].

R&R's conclusion: Principle B applies both to pronouns and to *zich*, but there is an additional *non-local* condition to which only pronouns are subject.

The chain condition (similar to the traditional Condition B): A pronoun (in contrast to *zich*) cannot be c-commanded with a co-indexed NP contained within the same GC.

7. Further evidence for two conditions:

7.1. Another distinction between *zich* and pronouns

- (16) a. *Henk_i wees mij aan zich_i toe.
 Henk assigned me to zich.
 b. Henk_i wees zichself aan zich_i toe.
 Henk assigned himself to zich_i.

In R&R's system (informally):

the predicate *assigned* is semantically reflexive (because two of its arguments denote the same individual).⁴

In (16)a, the predicate is not reflexive-marked. In (16)b it is.

This has been seen as one of the important pieces of evidence for R&R's condition B.

We need to modify Polly's system to capture this, but not very radically.

Proposal. For an n place verb to compose with an argument it must first be merged with p, unless one of the verbs arguments is an anaphor. (Could be implemented by claiming that both p and the anaphor shift the category of the predicate accordingly, or that they both check an uninterpretable feature.)

$$(17) \quad p' = \lambda v_{\langle e_n, t \rangle}. \lambda x_1 \dots \lambda x_n: \forall i, j \ x_i \neq x_j. v(x_i) \dots (x_j)$$

Again there is a distinction between *zich* and a pronoun, arguing that pronouns are subject to an additional non-local condition.

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|---------|-----------------------------|-----------------------------------|
| (18) a. | *Henk _i wees | ziczelf aan hem _i toe. |
| | Henk assigned | himself to him. |
| b. | *John _i assigned | himself to him _i . |
| | John assigned | himself to him. |

7.2. Ellipsis

Background:

Fiengo and May (1984): Under ellipsis we get condition B effects but not Condition C:

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|---------|---------------------------|----------------------------------|
| (19) a. | Mary likes John. | *John does too <likes himself> |
| b. | Mary likes John's mother. | John does too <likes his mother> |

An additional argument for Jacobson's proposal (stated in Fox 1993 as an argument for R&R)

Things follow automatically under Jacobson's proposal. The VP in the first sentence of (19)a denotes a partial function from individuals to truth values:

$\lambda x: x \neq \text{John. Mary likes John}$

And this can't be the meaning of the elided VP.

But again ECM verbs are special

- (20) a. I expected Jessie Owens to win the race.
 Jessie Owens did, too <expect himself to win the race>.
- b. I told Jessie Owens to try to win the race.
 *Jessie Owens did, too <tell himself to try to win the race>.

The (relative) acceptability of (20)a mirrors the Dutch facts with *zich*. What this suggests is that the accusative-marked NP in an ECM construction is not an argument of the matrix verb. (Hence the presupposition that blocks (20)b is not present in (20)a.) .

Hence, we still need the standard (non-local) condition B (i.e., R&R's chain condition), in order to explain the facts in (9):

- (9) a. *John_i wants him_i to win the prize.
 b. *John_i expects him_i to win the prize.
 c. *John_i believes him_i to have won the prize.

We also find parallel English examples to the Dutch facts in (18).

- (21) a. ?? I introduced J&M₁ to Bill because they₁ wouldn't
 b. I introduced J&M₁ to each other₁ because they₁ wouldn't.

8. Possible Conclusion

Grammar has two conditions:

1. A condition on reflexive predicates (R&R's Principle B), which Jacobson provides a very nice account of.
2. A condition on co-indexation (R&R's chain condition, Standard Principle B), a non-local condition on syntactic structures.

Why does grammar have this non-local principle, together with the necessary (very complex) trans-derivational constraints that Jacobson criticizes, Rule I/ Rule H?

Perhaps it is a gift from the gods which is in place in order to help humans find the right answers to complex questions. In particular, it is there to help us figure out the working of the system in areas where meta-theoretic considerations of simplicity may be insufficient.

So it is there (together with Principle C) to help us figure out the correct structure for pseudo-clefts, relative clauses, questions, reconstruction, inverse scope, and Antecedent Contained Deletion.

