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# A deletion solution to the sloppy ellipsis puzzle

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# 1 The sloppy ellipsis puzzle and why it's a problem

1.1 The PUZZLE: (Hardt 1999, Schwarz 2000)

- (1) I'll help you if you want me to. I'll kiss you even if you don't <>.
   a. <> = <want me to help you> STRICT
   b. <> = <want me to kiss you> SLOPPY
- (2) I'll help you if you  $[_{VP1}$  want me to  $<[_{VP2}$  help you]>]. I'll kiss you even if you don't  $<[_{VP3}$  want me to kiss you]>.

#### Generally:

(3) An elided  $VP_2$  embedded inside a  $VP_1$ , where  $VP_1$  is the antecedent to a  $VP_3$ , can get a 'sloppy' interpretation inside  $VP_3$ .

Ellipsis in the antecedent VP is necessary; there's no 'sloppy deaccenting puzzle':

(4)	I'll help you if you want me to l	nelp you. I'll kiss you even if you don't <>.
	a. <> = <want help="" me="" to="" you=""></want>	STRICT
	b. <> <want kiss="" me="" to="" you=""></want>	*SLOPPY

#### 1.2 The variable solution

Hardt and Schwarz: Ellipsis is a variable in the semantics and absent or an empty proform in the syntax

- (5) I'll help you if you  $[_{VP1}$  want me to  $e_2$  ]. I'll kiss you even if you don't  $e_3$ .
  - a.  $e_2 = x.help(you)(x)$
  - b.  $[[VP_1]] = y.want(e_2(me))(y)$
  - c.  $e_3 = [[VP_1]] = y.want(e_2(me))(y)$  SLOPPY

For Hardt,  $e_2$  in (5c) can be assigned a new value via center shift;

For Schwarz, the antecedent VPs *help you* and *kiss you* scope out of their clauses, providing distinct binders for the variable

d. Hardt: y.want $(e_4(me))(y)$ , where  $e_4 = x.kiss(you)(x)$ y.want(kiss(you)(me))(y) SLOPPY Schwarz: LF: [kiss you]<sub>4</sub> [I'll  $t_4$  even if you don't <want me to  $e_4$ > ] Why there's no sloppy reading for the deaccented VP in (4):

(6) I'll help you if you [ $_{VP1}$  want me to help you]. I'll kiss you even if you don't  $e_3$ .

 $[[VP_1]] = y.want(help(you)(me))(y)$  $e_3 = [[VP_1]] = y.want(help(you)(me))(y)$ 

How the variable solution works: By analyzing the elided  $VP_2$  as a variable over VP-meanings. Both Hardt and Schwarz take it that the easiest way to get this to work in the semantics is if in the syntax, the missing VP is simply an unpronounced pronominal.

1.3 Tomioka 2003's PROBLEMS for the variable solution:

1. No weak crossover effects, 2. Sloppy ellipsis in NP-ellipsis and sluicing (where movement of the antecedent is much less plausible), 3. Island-violating VP movement

# 2 A deletion solution

Merchant 2001, *to appear*: PF deletion is triggered by an E feature on the licensing head (generally T for VP-ellipsis); call the 'deleted' constituent 'E-marked' (shown by  $_{E}$ ):

(7) I'll help you if you [ $_{VP1}$  want me TP ] to[E]  $\langle VP_{2:E} \rangle$ help you

(9) A constituent can be elided if is e-given.

- (10) *e-givenness*: An expression X is *e-given* iff X has a salient antecedent A and, modulo existential type-shifting,
   (i) A entails E-clo(X), and
   (ii) X entails E-clo(A).
- (11) The *E-closure of*  $\alpha$  (E-clo( )) is the result of replacing all E-marked subelements of with variables of the appropriate type

VP<sub>2</sub> and VP<sub>4</sub> are E-marked, hence by (10) are replaced by a bound variable,  $P_{\langle e,t \rangle}$ , allowing VP<sub>3</sub> to satisfy (9):

(12) 
$$\text{E-clo}(\text{VP}_1) = \text{E-clo}(\text{VP}_3) = x. P.x \text{ wants me to } P$$

No sloppy reading in (4) because there is no E-feature in the antecedent:

(13) E-clo(VP<sub>1</sub>) = x.x wants me to help you E-clo(VP<sub>3</sub>) = x. P.x wants me to P E-clo(VP<sub>1</sub>) E-clo(VP<sub>3</sub>), hence VP<sub>3</sub> is not e-given, so VP<sub>3</sub> cannot be elided

No need for a derivational view of satisfaction of structural isomorphism of LF phrase markers, as Tomioka 2003 proposes.

#### 2.1 Sloppy ellipsis sites and wh-traces

Prediction: A sloppy ellipsis site cannot host a wh-trace Equivocal data? (14)-(19) clearly lack a sloppy reading

- (14) \*The patient failed to take the medications his doctor wanted him to. He also failed to do the exercises his physical therapist did <>. <> = <wanted him to do *t*>
- (15) \*Ben GOT more Valentines than I expected him to because he GAVE OUT more than I did <>.<>=<expected him to give out t>
- (16) \*I READ the books you asked me to. I also CITED a bunch you didn't <>. <> = <ask me to cite t>
- (17) \*Fred READ the books he was supposed to. He also REVIEWED the ones he was <>. <> = <supposed to review t>
- (18) \*Fred READ more books than he was supposed to. He also REVIEWED more than he was <>. <> = <supposed to review>
- (19) \*I RECORDED the songs Abby asked me to, and I also PLAYED the ones Ben did <>. <> = <ask me to play *t*>

Control cases ((21) from Kennedy 1997:154):

- (20) I read the books you asked me to. I also read a bunch you didn't <>. <> = <ask me to read>
- (21) Marcus bought every book I did, and I read every book Charles did <>. <> = <bought>.

But Tomioka 2003 presents (22):

- (22) A: John has a very indirect way of telling you what he thinks. For instance, when he likes someone, he tells you who<sub>1</sub> he DOESN'T <>. (<> = like t<sub>1</sub>)
  B: Wait a minute. But when he HATES someone, he doesn't <>. Instead, he tells you exactly who he hates. (<> = tell you who<sub>2</sub> he doesn't hate t<sub>2</sub>)
- (23)  $\text{E-clo}(\text{VP}_1) = \text{E-clo}(\text{VP}_3) = \# x. P.x \text{ tells you who}_2 \text{ he doesn't } P$

Difference: In (14)-(19), the wh-element extracts out of the elided VP<sub>3</sub>; in (22), the wh-extraction is internal to the elided VP. This provides the way out: what is elided in (22) is in fact  $\langle do \ that \rangle$ , as posited for unrelated cases in Merchant *to appear*; such an analysis is impossible for (14)-(19), since the wh-operator is outside the ellipsis site (vacuous quantification remains)

# Conclusions

- A structure-based ('deletion') account of ellipsis is consistent with the sloppy ellipsis puzzle: the ellipsis site behaves like a variable in the *semantics*, but need not in the *syntax*
- Refining the semantic identity condition vitiates the need to posit an unpronounced variable or the like in the syntax: the syntax of ellipsis remains the usual syntax of pronounced clauses, with the E feature.

# References

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