# On Subjects in ACD in Dutch and German

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# 1 Introduction

# 1.1 Modal Complement Ellipsis (MCE) in Dutch and German

MCE: ellipsis of the infinitival complement of a non-epistemic modal (Aelbrecht, 2009):

- (1) Ik wil wel helpen, maar ik kan niet helpen. (DUTCH)
  - I wue schau hoefn, oba i kau net hoefn (Austrian German)
  - I want prt help but I can not help
  - 'I want to help, but I can't.'

(see also Aelbrecht 2007; Zobel 2007)

#### 1.2 Extraction from MCE

Generally no object extraction from MCE (Aelbrecht, 2009):

(2) \*Ik weet niet welk boek ze moet lezen, maar ik weet welk (boek) ze niet moet I know not which book she must read but I know which book she not must lezen  $t_{welk}$  (boek). (Dutch) read

'I don't know which book she has to read, but I know which she doesn't have to.'

# 1.3 ACD (Antecedent Condition Deletion)

Object extraction in ACD is possible, but only with coreferential subjects:

- (3) Da Jim<sub>j</sub> hot jeds Buach glesn, des<sub>i</sub> a<sub>j</sub> t<sub>j</sub> lesn t<sub>i</sub> miassn hot. (AG) the Jim has every book read that he read must had 'Jim read every book that he had to.'
- (4) \*Da Jim<sub>j</sub> hot jeds Buach glesn, des<sub>i</sub> de Jana<sub>k</sub> t<sub>k</sub> lesn t<sub>i</sub> miassn hot. (AG) the Jim has every book read that the Jana read must had 'Jim read every book that Jana had to.'

#### 1.4 Plot

- Why object extraction from MCE only in ACD? Aelbrecht's (2009) freezing at LF + special trace identity in ACD (Sauerland, 2004)
- Why subject coreference in Dutch/German but not English? related to scope over the subject (Frey, 1993)

# 2 Two Extraction Puzzles

# 2.1 Objects vs Subjects

MCE in D/AG does not allow object extraction out of the ellipsis site, but subject extraction is fine:

- (5) a. \*Ik weet niet welk boek ze moet lezen, maar ik weet welk (boek) ze niet I know not which book she must read but I know which book she not moet lezen t<sub>welk</sub> (boek). (Dutch) must read
  - 'I don't know which book she has to read, but I know which she doesn't have to.'
  - b. Die rok moet niet gewassen worden, maar hij mag wel that skirt must not washed become but he is.allowed prt gewassen worden thij. (DUTCH) washed become

'That skirt doesn't have to be washed, but it can be.'

Aelbrecht's (2009) account:

- MCE is licensed by Agree with ellipsis licensor, here: root modal
- ellipsis is frozen when the licensor enters the derivation
- subject occupy a phase edge, objects don't

# 2.2 ACD and Coreferential Subjects

In ACD, extraction of objects is sometimes possible – a problem for Aelbrecht's (2009) account:

- (6) a.  $\lim_{j \to \infty} heeft elk$  boek gelezen  $dat_i hij_j moest <math>t_j lezen t_i$ . (Dutch)  $\lim_{j \to \infty} has$  every book read that he had to read
  - b. Da  $Jim_j$  hot jeds Buach glesn,  $des_i$   $a_j$   $t_j$  lesn  $t_i$  miassn hot. (AG) the Jim has every book read that he read must had 'Jim read every book that he had to.'

But, when the subjects are not coreferential ACD is ruled out: Aelbrecht (2009) predicts this

- (7) a. \*Jim<sub>j</sub> heeft elk boek gelezen dat<sub>i</sub> Jana<sub>k</sub> moest  $\frac{t_k}{t_k}$  lezen  $\frac{t_i}{t_i}$ . (DUTCH) Jim has every book read that Jana had to read
  - b. \*Da  $Jim_j$  hot jeds Buach glesn,  $des_i$  de  $Jana_k$   $t_k$  lesn  $t_i$  miassn hot. (AG) the Jim has every book read that the Jana read must had 'Jim read every book that Jana had to.'

#### Pilot Test on Standard German

Free relative clauses, 8 items each, different auxiliaries/modals, grammaticality with magnitude estimation. Two sample items each:

- (8) free relative, subject coreference:
  - a. Jana hat angerufen, wen<sub>j</sub> sie<sub>i</sub> t<sub>i</sub> t<sub>j</sub> anrufen wollte. Jana has phoned who she phone wanted
  - b. Toby hat schon getroffen, wen<sub>j</sub> er<sub>i</sub> t<sub>i</sub> t<sub>j</sub> treffen musste. Toby has already met, who he meet must
- (9) free-relative, subject contra-reference:

- a. Pascal hat schon erledigt, was Martin noch  $t_i$   $t_j$  erledigen muss. Pascal has already finished, what Martin still must
- b. Pius hat oft eingeladen, wen<sub>j</sub> Tanja<sub>i</sub> schon  $t_i$   $t_j$  eingeladen hatte. Pius has often invited, who Tanja already invited has.

Preliminary result from 4 subjects (co vs contra-ref: Welch Two Sample t-test, t = 1.3432, df = 61.08, p-value = 0.18):

extraction	subject	sample	mean normalized judgment
no	coref.	(10)	0.2148
ACD, headed	coref.	(11)	0.1245
ACD, free	coref.	(8)	-0.1866
	contraref.	(9)	-0.5178

### Sample control items:

(10) no extraction:

Die Ärzt-in musste den Fall nicht übernehmen, aber sie durfte. the doctor-FEM must the case not take over, but she was allowed

(11) extraction: headed relative, subject coreference:

Connie hat eine Schulkameradin eingeladen, die sie durfte. Connie has a schoolmate-FEM invited who she was allowed

# 3 A Binding Solution for the Puzzles

# 3.1 Sloppy Ellipsis in English

- (12) Mary bribed him, and SOMEbody else DIdn't bribe him;
- (13) John<sub>i</sub> admitted that Mary had bribed him<sub>i</sub>. Bill<sub>j</sub> didn't admit that MAry had bribed him<sub>j</sub>, but he admitted that SOMEbody had bribed him<sub>j</sub>. (Hardt, 1992, (31))

# Rooth (1992) account:

- ellipsis licensing phrase (LP) independent of elided constituent
- bound trace indices are irrelevant for ellipsis licensing

• identical trace indices are irrelevant for ellipsis

(14)John  $\lambda x$  admitted that Mary had bribed x antecedent Bill  $\lambda y y$  admitted that Mary had bribed y elided VP licensing phrase (LP)

(see also Heim 1997; Sauerland 2004; Takahashi and Fox 2005 and others)

- Antecedent: ...  $YP \dots t_{YP} \dots$ (15)
  - OK:  $t_{XP}$  is bound within LP:

[LP L [ ...XP [ellipsis site ...  $t_{XP}$  ...]]] \*:  $t_{XP}$  isn't bound within LP and not identical to  $t_{YP}$  in the antecedent  $[_{LP}\ L\ [\ \dots XP\ [_{ellipsis\ site}\ \dots\ t_{XP}\ \dots]]]$ 

Trace identity effect in English ACD:

- Polly visited every town, Opi Eric did [visit t<sub>i</sub>]. (16)
  - b. \*Polly visited every town; in every country; Opi Eric did [visit t<sub>i</sub>].

#### 3.2 Objects vs Subjects

Our Proposal: The ellipsis licensing domain in Dutch/German cannot include more overt material than modal and its complement.

# Object extraction:

\*Ik weet niet welk boek ze moet lezen, maar ik weet welk (boek) ze niet moet I know not which book she must read but I know which book she not must lezen t<sub>welk</sub> (boek). read

'I don't know which book she has to read, but I know which she doesn't have to.'

Unbound trace of welk:

welk (boek) ze niet moet lezen  $t_{welk}$  (boek) (18)

# Subject extraction:

(19) (Aelbrecht, 2009, p. 63)

Erik is al langsgekomen, maar Jenneke moet nog t<sub>Jenneke</sub> langskomen Erik is already passed by, but Jenneke must still pass by

'Erik has already passed by, but Jenneke still has to pass by.'

Bound trace of *Jenneke*:

(20) ..., maar Jenneke 
$$\lambda_{\text{Jenneke}}$$
 moet nog  $t_{\text{Jenneke}}$  langskomen LP

# 3.3 ACD and Coreferential Subjects

- extraction allowed: trace identity
- subject coreference requirement: contra-reference would require scope over the subject (trace)

Further evidence for trace identity involvement in Dutch ACD:

(21) \*Jim<sub>k</sub> heeft elk boek<sub>i</sub> gelezen [dat<sub>i</sub> bovenop een tijdschrift<sub>j</sub> lag [dat<sub>j</sub> hij<sub>k</sub> moest Jim has every book read that on top of a journal laid that he had.to  $t_k$  lezen  $t_{\bar{j}}$  read

ACD resolution in English: Scope over the subject:

(22) a. Polly visited every town 
$$Op$$
 ERIC did visit  $t_{Op}$  b. every town  $ERIC_F$  did visit  $t_{Op}$  Polly visited  $t_{QR}$ 

AG and D like Standard German don't allow object-subject scope (Frey 1993 and others):

- (23) a.  $\lim_{j} \lambda_{j}$  [DP elk boek dat<sub>i</sub> hij<sub>j</sub>  $\lambda_{j}$  moest  $\underbrace{t_{j} \text{ lezen } t_{i}}_{\text{antecedent}}$ ]<sub>i</sub>  $\underbrace{t_{j} \text{ heeft gelezen } t_{DP_{i}}}_{\text{antecedent}}$ .
  - b.  $\lim_{j} \lambda_{j} \left[ DP \text{ elk boek dat}_{i} \text{ Jana}_{k} \lambda_{k} \text{ moest } \underbrace{t_{k} \text{ lezen } t_{i}}_{\text{poss. antecedent}} \right]_{i}$  antecedent  $\underbrace{t_{j} \text{ gelezen } t_{DP_{i}}}_{\text{poss. antecedent}}$ .

# 4 Conclusions

- ellipsis in German/Dutch with modal complements
- no ACD: subject extraction OK, object extraction not
- ACD: object extraction OK when subject coreferent
- freezing of ellipsis result of semantic condition

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