On Subjects in ACD in Dutch and German
Lobke Aelbrecht & Uli Sauerland

A. Introduction
Dutch (D) and Austrian Bavarian German (BG) display an elliptical phenomenon called modal complement ellipsis (MCE), where the infinitival complement of a non-epistemic modal is elided (Aelbrecht 2009, cf. (1)).

(1) a. Ik   wil   wel   helpen, maar ik   kan   niet [~~helpen~~].   (D)
  b. I   wue schau hoefn, oba i   kau   net [~~hoefn~~]   (BG)
    I   want PRT help   but I   can   not help
    'I want to help, but I can't.'

When MCE occurs in an ACD context, the subjects of the ellipsis clause and the antecedent have to be coreferential. We argue that this constraint follows within Aelbrecht's analysis of Dutch MCE provided two additional, independently motivated assumptions are adopted: the copy-identity condition of Sauerland (2004), and the assumption that objects in Dutch and German cannot scope over the subject (Frey, 1993).

B. Two extraction puzzles
Objects vs subjects – Aelbrecht (2009) shows that MCE in D/BG does not allow object extraction out of the ellipsis site, but subject extraction is fine, as (2) illustrates for Dutch.

(2) a. *Ik   weet niet welk boek ze moet lezen, maar ik weet <u>welk</u> (boek) ze
    I   know not which book she must read but I know which book she
    niet moet [~~lezen t~~_{~~welk (boek)~~}].   (D)
    not 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 <u>hij</u> mag   wel [gewassen
    that skirt must not washed   become but he is.allowed PRT washed
    ~~worden t~~_{~~hij~~}].   (D)
    become
    'That skirt doesn't have to be washed, but it can be.'

She accounts for this puzzle arguing MCE is licensed by Agree with an ellipsis licensor, in this case the root modal, which need not be adjacent to the ellipsis site. She assumes ellipsis to take place as soon as the licensor enters the derivation. At that point the ellipsis site is frozen: only what has vacated it prior to ellipsis can escape. Under her account, subjects have an escape hatch between the licensor and the ellipsis site, while objects do not.

ACD & coreferential subjects – However, there is a second extraction puzzle in MCE, concerning ACD contexts: ACD involves operator movement from object position out of the ellipsis site (cf. Sag 1976; Williams 1977). Hence, Aelbrecht's theory predicts MCE to be illicit in ACD, contrary to fact (cf. (3)). However, when the subjects of the ACD relative clause and the antecedent clause are not coreferential, MCE is disallowed (cf. (4)).

(3) a. Jim_j heeft elk   boek gelezen dat_i hij_j moest [t_j [t_j ~~lezen t~~_i]].   (D)
    Jim has every book read   that he had.to   read
  b. Da Jim_j hot jeds   Buach glesn, des_i a_j [t_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.'

(4) a. * Jim_j heeft elk   boek gelezen dat_i Jana_k moest [t_k [t_k ~~lezen t~~_i]].   (D)
    Jim has every book read   that Jana had.to   read
  b. * Da Jim_j hot jeds   Buach glesn, des_i de Jana_k [t_j [t_j ~~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.'

C. A binding solution for the puzzles
Objects vs subjects – We partly adopt Aelbrecht's account for the first extraction puzzle, but argue that the reason why objects cannot extract is not because the ellipsis site is frozen syntactically. Instead, we argue that ellipsis marks off the domain of identification that is

needed to bind movement traces: Ellipsis is not licensed if the ellipsis site contains a variable that is unbound within the constituent headed by the ellipsis licensor (L) and there is no identical variable in the antecedent of the domain of identification (cf. (5)).

(5) Antecedent: …YP…t_{YP}…

    a. $[_{LP}$ L $[$ …XP… $[_{ellipsis\ site}$ …t_{XP}…$]]]$ → t_{XP} is bound within LP: ✓

    b. * $[$…XP… $[_{LP}$ L $[$ … $[_{ellipsis\ site}$ …t_{XP}…$]]]]$ → t_{XP} is unbound within LP and not identical to t_{YP} in the antecedent: *

    c. $[$…YP… $[_{LP}$ L $[$ … $[_{ellipsis\ site}$ …t_{YP}…$]]]]$ → t_{YP} is identical to t_{YP} in antecedent: ✓

Because the subject moves to a position between the ellipsis site and the licensor (Aelbrecht 2009), its trace is bound (cf. (5)a). The object on the other hand, does not have such an escape hatch, so its trace is unbound in LP. Ellipsis is therefore blocked (cf. (5)b) unless the traces in the antecedent of LP and LP itself are identical (cf. (5)c).

ACD and coreferential subjects – Unlike English, BG and D do not allow for object-subject scope (Frey 1993): Quantifier raising (QR) targets a position below the overt subject in ACD. This gives us the structure in (6)a for (3)a, and (6)b for (3)b.

(6)   a.   Jim$_j$ $[_{DP}$ elk boek dat$_i$ hij$_j$ moest $[t_j$ $[t_j$ ~~lezen t_i~~$]]]_i$ heeft gelezen t_{DPi}.

      b.   Jim$_j$ $[_{DP}$ elk boek dat$_i$ Jana$_k$ moest $[t_k$ $[t_k$ ~~lezen t_i~~$]]]_i$ heeft gelezen t_{DPi}.

The structures in (6) derive the two properties of ACD in Dutch shown above: A) object extraction becomes possible and B) subject coreference is required.

A) Traces in ACD are known to be identical (Sauerland 2004, Kennedy 2008) because they are both related to the same head. This is demonstrated by the English contrast in (7), where in (7)b the traces are not related to the same head and therefore not identical. Because ACD-traces are identical, the object traces as shown in (5)c do not block ellipsis. Hence, the grammaticality of (3) is expected under our approach, even though it involves extraction from the object position.

(7)   a.   Polly visited every town$_i$ *Op*$_i$ Eric did [~~visit t_i~~].

      b. * Polly visited every town$_j$ in every country$_i$ *Op*$_i$ Eric did [~~visit t_i~~].

B) Subject coreference is required because in (6) the overt subject cannot be part of the licensing phrase – otherwise the only corresponding antecedent would also include the overt subject, but that also includes the object with the attached relative, leading to infinite regress. Consequently, LP and its antecedent both include an unbound subject trace. Identification of the subject traces is is only possible if their reference is identical (Sauerland 2004).

D. Further predictions

English ACD – In English, object-QR targets a position higher than the subject (possibly after subject reconstruction, Frey 1993). Hence, our proposal predicts that English VP ellipsis does not exhibit the same restriction on subject coindexing. This prediction is borne out, cf. (8).

(8)   Jim$_j$ read every book that$_i$ Jana$_k$ did [t_k read t_i].

Non-identical object traces in ACD – Moreover, we predict that in cases parallel to (7)b, where the object traces are not related to the same head, are ungrammatical, as (9) illustrates.

(9) *Jim$_k$ heeft elk   boek$_i$ gelezen [dat$_i$ bovenop een tijdschrift$_j$ lag [dat$_j$ hij$_k$

      Jim has   every book read   that on.top.of a journal   laid that he

      moest t_k [t_k ~~lezen t_i~~$]]]$.

      had.to   read

References

AELBRECHT, L. (2009). You have the right to remain silent: The syntactic licensing of ellipsis. Ph.D. thesis, Katholieke Universiteit Brussel. • FREY, W. (1993). *Syntaktische Bedingungen für die semantische Interpretation: Über Bindung, implizite Argumente und Skopus*. Akademie: Berlin. • KENNEDY, C. (2008). Argument contained ellipsis revisited. In K. Johnson (ed), *Topics in Ellipsis*. CUP. • SAG, I. (1976). Deletion and logical form. PhD dissertation, MIT, Cambridge, Massachusetts. • SAUERLAND, U. (2004). The interpretation of traces. *Natural Language Semantics* 12, 63–127. • WILLIAMS, E. (1977). Discourse and logical form. *Linguistic Inquiry* 8:101–139.