Focus association into copies and the scope of *even*

SALT 26

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Explaining backwards association with *even*: Jackendoff (1972) famously observed that *even* can associate "backwards" with a subject as in (1). I argue instead that *even* is generally able to associate with material which has moved out of its scope, cf (2). (1) is therefore subsumed under this more general description, given the *v*P-internal subject hypothesis.

(1) A [professor]$_F$ will **even** come to the party. (based on Jackendoff, 1972)

(2) [John]$_F$, they **even** consider ___ intelligent. (Kayne, 1998, fn. 75)

> When *even* associates with a constituent outside of its surface scope, it is actually associating with a lower copy of the focused constituent, within the scope of *even*.

The contrast in (3) provides support for this view that *even* requires its associate to originate within its surface scope. The subject originates lower in raising (*seem*) but not in control (*want*):

(3) A [professor]$_F$ {✓seems / *wants} to **even** be at the party.

See Erlewine (2014, ch. 4) for additional arguments that backwards association requires a lower copy in the scope of *even*, as well as arguments against a forced reconstruction approach.

Proposal: I adopt the Copy Theory of movement (Chomsky, 1993, a.o.), with F-marking subject to copying. At LF (4b), the lower copy will be interpreted as a definite description bound variable following Trace Conversion (Rullmann and Beck, 1998; Fox, 2002).

(4) A [professor]$_F$ will **even** come to the party. (=1)

a. Narrow syntax: [A [professor]$_F$] FUTURE EVEN [[a [professor]$_F$] come to the party]

b. LF: [A [professor]$_F$] λx FUTURE EVEN [[THE [professor]$_F$ x] come to the party]

c. EVEN $\rightsquigarrow$ GENERIC(x)((the professor x comes...) $<_{\text{likely}}$ (the student x comes...))

d. $\Rightarrow_{\text{LA}}$ for generic x, (x professor and comes) $<_{\text{likely}}$ (x student and comes)

Notice that the scope of *even* at LF contains a variable. The scalar presupposition of *even* projects *generically* over individuals in the domain (4c)—see Erlewine (2014, ch. 3) for independent motivation with rich contexts. Local Accommodation (LA) is applied to the lower copy definite descriptions to yield the desired inference (4d). This derives the correct inference of *even* in cases of backwards association, and correctly predicts a dependence on a lower copy of movement.

Background: *even* in DE contexts: The scalar inference of *even* is reversed in downward-entailing (DE) contexts. Broadly two approaches to this problem have been developed:

(5) a. The Scope Theory: *Even* takes scope outside of the DE operator at LF (Karttunen and Peters, 1979; Wilkinson, 1996; Nakanishi, 2012, a.o.)

b. Lexical ambiguity theory: There are PPI and NPI *even*s which introduce reverse scalar inferences (Rooth, 1985), and are different words in some languages.

Backwards association is not a result of the Scope Theory: The Scope Theory potentially offers an explanation for backwards association, but it overgenerates. Under the Scope Theory, to produce the correct scalar inference in (6), *even* must scope over *no one*, out of the control embedding. Given this analysis of (6), the Scope Theory fails to explain the contrast in (7), based on (3)—the F-marked *student* should be able to be interpreted within the scope of *even* at LF in both cases.

(6) **No one** {seems / wants} to **even** read $[Aspects]_F$. ⇝ *Aspects* is *most* likely to be read
Predicted Scope Theory LF: EVEN [**no** student {seems / wants} to read $[Aspects]_F$]

(7) **No** $[student]_F$ {ok seems / *wants} to **even** be at the party. (cf 3)
Predicted Scope Theory LF: EVEN [**no** $[student]_F$ {seems / wants} to be at the party]

Revisiting Nakanishi's (2012) ACD data: Nakanishi (2012) presents an argument for the Scope Theory from Antecedent-Contained Deletion (ACD). The ACD in baseline (8) has two possible resolutions, each requiring QR of the *box* DP to different heights (Sag, 1976). Specifically, Fox (2002) argues that the relative clause must be late-merged high to derive the correct antecedent.

(8) Bill $[_{VP1}$ failed to $[_{VP2}$ lift $[_{DP}$ the box that Mary did △]]].
a. △ = "lift": Bill failed to [[$_{antecedent}$ lift ___] [the box [$_{late}$ that Mary did △]]]
b. △ = "fail to lift": Bill PAST [[$_{antecedent}$ fail to lift ___] [the box [$_{late}$ that Mary did △]]]

One of Nakanishi's crucial examples is (9); the supporting context is on the poster.

(9) ok Bill has **failed** to **even** lift [the $[box]_F$ that Mary has △]. △ = "failed to (even) lift"
⇝ the box is the *most* likely to be lifted (vs piano, desk)

Nakanishi claims that such examples necessitate the Scope Theory: the perfect auxiliary *has* enforces a corresponding antecedent (△ = "fail to lift"), necessitating movement of the DP (containing F-marking) above the higher VP *fail to*, as in (8b), but this leaves the F-marked *box* outside the scope of *even*. Under the Scope Theory, *even* takes wider scope to derive the correct inference and this problem does not arise. However, my proposal allows for *even* to associate with a lower copy of *box* while simultaneously allowing the DP to QR out of the scope of *even* for ACD resolution.

Moreover, a simple modification to Nakanishi's example shows that her Scope Theory approach overgenerates. Consider (11) and (12) in context (10):

(10) Context: At the box-lifting competition, Sue first lifted the 25kg box and then failed to lift the 30kg box. John lifted the 20kg box but failed to lift the 25kg box. Mary was disqualified immediately, failing to lift the 15kg box. And now it's Bill's turn. He normally does quite well, but somehow he did terribly. Today...

(11) * He has **failed** to **even** lift [the box that $[Mary]_F$ has △]. Int.: △ = "failed to (even) lift"

(12) ok He has **even failed** to lift [the box that $[Mary]_F$ has △]. △ = "(even) failed to lift"
⇝ the box that Mary failed to lift (15kg) is the {*most* likely to be lifted, *least* likely for someone to fail to lift}, as compared to the boxes that others failed to lift (30kg + 25kg).

The Scope Theory predicts *even* in (11) to be interpreted above the DE *fail to* at LF, just as in (9) and (12). The contrast in (11–12) is then unexplained by Nakanishi's Scope Theory approach.

This contrast is explained by my account. The intended ellipsis resolution in (11–12) requires the *box* DP to move above *fail to*, with the relative clause "that Mary has △" then late-merged high. Therefore, in (11), but not in (12), there is never an instance of *Mary* inside *even*'s surface scope. In contrast, in example (9) above, ACD was possible while maintaining focus association with *box* because a copy of the focused *box* exists in the surface scope of *even*.

Selected references: Erlewine 2014. *Movement out of focus*. MIT dissertation • Fox 2002. "Antecedent-contained deletion and the copy theory of movement." *LI* 33 • Jackendoff 1972. *Semantic interpretation in generative grammar* • Nakanishi 2012. "The scope of *even* and quantifier raising." *NLS* 20