Rebinding, ineffability, and limits on accommodation

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1 Two puzzles

- Warner's puzzle
- Rebinding

2 A morphological puzzle reanalyzed as a syn/sem one

Potsdam 1997 (building on Halliday and Hasan 1976, Huddleston 1978, Warner 1985, Quirk et al. 1972, and Lasnik 1995; cf. Harwood 2015, Thoms 2015)

- (1) a. Emily **played** beautifully at the recital and her sister will, too. **<play** beautifully at the recital>
 - Emily took a break from her studies, and her sister will, too. <take a break from her studies>
 - c. Emily sang the song the way she wanted to. <sing the song>
 - d. Emily went to the library because she wanted to. <go to the library>

Under ellipsis, be, for example, shows a different, more restrictive, pattern:

- (2) a. Maria will **be** at the party, and her sister will, too. **<be** at the party>
 - b. *Maria was at the party and her sister will, too. <be at the party>
 - c. Maria was at the party, and her sister will be, too. <at the party>
 - d. Maria was at the party, and her sister was, too. <at the party>
- (3) a. She dove from the outcropping, which/as she wanted to.
 - b. She visited Rhodes, which/as she wanted to.
 - c. She is at the party, which/as she wanted to *(be).
 - d. She was at the party, which/as she wanted to *(be).
 - e. She will be at the party, which/as she wanted to (be).

Beware the fetishization of attestation:

- (4) *Your mother wasn't there for your *quincañera*, the way she said she would. (Paolo Bacigalupi, *The Water Knife*, 2015, Vintage Books: NY, p. 42.)
- (5) *I'm America, and so can you! (Stephen Colbert, 2007, Grand Central: NY)
- (6) "I'm not there right now," Mr. Ryan said. "*And I hope to, though, and I want to." (Jennifer Steinhauer and Alexander Burnsmay, "Paul Ryan Says He Is 'Not Ready' to Endorse Donald Trump", New York Times, May 5, 2016)

Warner's generalization:

(7) In cases of ellipsis of a VP headed by an auxiliary verb, the auxiliary must have the exact same morphological form as its antecedent. (Warner 1985:63)

False: Potsdam 1997:360:

- (8) a. John is being examined but Jack really should be examined also.
 - b. [Snoopy talking to Woodstock, Peanuts cartoon] You and I are a lot alike ... Just a common bird and a common dog. Of course, if we had wanted to be great, we could have been great ... But we didn't need to be great.
 - He might be rude to the guests; I know he has been rude to the guests in the past! (Thoms 2015:181)
- (9) Forms of auxiliary verbs in English must be identical under ellipsis to their antecedents if those antecedents are finite.
- (10) Potsdam's hypothesis: "A trace of verb movement cannot serve as part of a VPE antecedent" (Potsdam 1997:362)
- (11) Thoms 2015:187: "A variable cannot provide an antecedent for ellipsis of a non-variable". (Supposed to follow from 'Parallelism')

Also false, for head movement, for A'-movement, and for A-movement:

(12) [CP] Nu gaat [IP] zij t_{nu} t_{gaat}], maar ik weet niet waarom. (Merchant 2001:21) now goes she but I know not why

'She's going now, but I don't know why.'

- a. \neq *... waarom zij.
- b. = ... waarom zij nu gaat.
- a. The FBI knows which truck₄ they rented t₄, but figuring out from where they rented it₄ has proven difficult. (Merchant 2001:206)
 - b. This is Washington, where everyone keeps track of who₁ t_1 crossed whom₂ and when they₁ crossed them₂. (Merchant 2001:202)
- (14) These facts should be carefully studied, but it's clear you haven't earefully studied these facts. (Merchant 2013)

NB: Thoms's claim (following others) that A-movement doesn't leave a trace or a copy leaves us in the lurch for understanding passive of intensional transitives, and reconstructed scope under modals/negation/quantificational adverbs:

- (15) a. A miracle would be needed/desired/wanted.
 - b. Several magical beasts were hoped/prayed/looked for by the children.
 - c. Raspberries were often/easily found in those days around the pond.
- (16) a. A miracle would be needed, and if you do need a miracle then God help you.
 - b. A unicorn was hoped for, and a dragon was hoped for, too.
 - c. Raspberries were often/easily found, and strawberries were often/easily found as well.
 - d. Usually, raspberries were easily found on those hikes, but we didn't manage to easily find raspberries that particular day.

2.1 Code switching

Code-switching: switching from one language system to another, typically within a single sentence or utterance:

- (17) Juan amenazó a alguien, aber ich weiss nicht, wem Juan gedroht hat.

 Juan threatened someone.ACC but I know not who.DAT he threatened has
- (18) Juan amenazó a alguien, aber ich weiss nicht, wen Juan amenazó.

 Juan threatened someone. ACC but I know not who. ACC Juan threatened

 'Juan threatened someone. but I don't know who Juan threatened.'

González-Vilbazo and Ramos 2012:

- (19) *Juan amenazó a alguien, aber ich weiss nicht, wem Juan gedroht hat.

 Juan threatened someone.ACC but I know not who.DAT Juan threatened has
- (20) Juan amenazó a alguien, aber ich weiss nicht, wen Juan amenazó. Juan threatened someone. ACC but I know not who. ACC Juan threatened 'Juan threatened someone, but I don't know who.'
- (21) The E feature imposes
 - a. e-GIVENness.

 $[\![E]\!] = \lambda p : e\text{-}GIVEN(p).p$, where an expression ϵ is e-GIVEN iff ϵ has a salient antecedent A such that $[\![A]\!] = F\text{-}clo(\epsilon)$ and $[\![\epsilon]\!] = F\text{-}clo(A)$, and

(The E-feature is an anaphoric device that introduces a pointer that is resolved by re-using a derivation or triggering a search for an already constructed derivation or structure—e.g., anaphora to a meaning)

b. No new lexeme requirement:

 $\forall m[(m \in M_E \land m \neq t) \rightarrow \exists m'(m' \in M_A \land m = m')],$

where M_E is the set of lexemes in the elided phrase marker and M_A is the set of lexemes in the antecedent phrase marker. $(M_E-t\subseteq M_A)$

- c. Limited syntactic identity (Chung 2013):
 - ... E is e-GIVEN, and
 - Argument structure condition: If an extracted phrase is the argument of a predicate in
 the ellipsis site, that predicate must have an argument structure identical to that of the
 corresponding predicate in the antecedent clause; and
 - ii. *Case condition:* If an extracted phrase is a DP, it must be Case-licensed in the ellipsis site by a head identical to the corresponding head in the antecedent clause.
- (22) **Hypothesis:** All cross-language ellipses involve code-switching at the ellipsis site (into the language of the antecedent).¹

INEFFABLE VPs: (Merchant 2015)

- Code-switching ellipsis with Greek antecedent
- · Greek has no infinitives

(23) a. Mother: Pinás?

hunger.2s.PRES

'Are you hungry?'

- b. Daughter: Yes, I do.
- (24) a. * Yes, I do *pináo*.

hunger:PRES.1s

b. * Yes, I do pin. hunger

(25) TP

I T'

do VoiceP

Voice E

V VP

VPIN

The boxed elided vP is *ineffable*: there is no deaccented version of this sentence possible

- (26) A Greek-English dialog
 - a. Mother: To proí de xriázete

the morning NEG need.NONACT.IMPERF.PRES.3sg

klimatizmó.

air-conditioning. ACC

'In the morning there's no need for air-conditioning."

- b. *Son*: Yes, it does!

have.ACT.IMPERF.PRES.3sg coolness.DIM

'It's cool.'

d. Son: No. it doesn't.

(27) *Yes, it does xriázete

ázete klimatizmó.

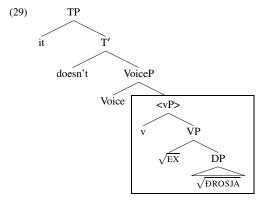
need.NONACT.IMPERF.PRES.3sg air-conditioning.ACC

- (28) a. *No. it doesn't be cool.
 - b. *No, it doesn't have a coolness.
 - c. *No. there doesn't be a coolness.
 - d. #No, there isn't a coolness.
 - e. *No, it isn't. (cool)
 - f. *No, it doesn't éxi

ðrosúla.

have. ACT.IMPERF. PRES. 3sg coolness. DIM

¹Modulo Kraus 2016.



(30) a. I Maria tha agapai to spiti, and her sister will, too.
the Maria FUT love.IMPERF.NONPAST.3s the house
'Maria will love the house...'

b. I Maria agapai to spiti, and her sister will, too. the Maria love.IMPERF.NONPAST.3s the house 'Maria loves the house...'

c. I Maria agapuse to spiti, and her sister will, too. the Maria love.IMPERF.PAST.3s the house 'Maria loved the house...'

(31) *I Maria tha agapai to spiti, and her sister will the Maria FUT love.IMPERF.NONPAST.3s the house agapai to spiti, too.

love.IMPERF.NONPAST.3s the house

BEHOLD THE MIND-BLOWER: 'morphological' identity effects are found in code-switching ellipsis

(32) a. I Maria tha ine sto parti, and her sister will (be), too. the Maria FUT be.NONPAST.3s at.the party
'Maria will be at the party...'

('Maria will love the house, and her sister will love the house, too.')

b. I Maria ine sto parti, and her sister will *(be), too. *the Maria be*.NONPAST.*3s at.the party* 'Maria is at the party...'

c. I Maria itan sto parti, and her sister will *(be), too. the Maria be.PAST.3s at.the party 'Maria was at the party...'

2.2 A valuation/binding solution

contexts as well:

DAHL'S PUZZLE (Dahl 1973) Slogan: From the bottom-up, once you go sloppy, you stay sloppy.

(33) John said he loved his mom, and Bill did, too.

a. ... and Bill said Bill loved Bill's mom.

b. ... and Bill said Bill loved John's mom.

c. ... and Bill said John loved John's mom.

d. ... *and Bill said John loved Bill's mom.

(34) Parallelism constraints on binding relations (Fiengo and May 1994, Hardt 2005, Merchant 2008, Takahashi and Fox 2006):

Binding and scope relations must be the same in antecedent and elliptical clause

(35) Fiengo & May, Fox: The problem is creating the right kind of antecedent—in order to generate (33d), given Parallelism, we'd need the following, and this is banned by Economy ('Don't Overlook Anaphoric Possibilities'; Williams 1997)

a. *John said he_{John} loved his's mom.

AN ASIDE: WHY PARALLELISM ISN'T ENOUGH

- We still need MaxElide (as Merchant 2008:152, Fox and Lasnik 2003:153 fn 10 point out, pace Messick and Thoms 2016; see esp. Griffiths and Lipták 2014):
- (36) Abby met most applicants, but I can't remember exactly which ones (*she did).
- (37) "Sluicing with indefinite correlates repairs islands, but Sluicing with focused correlates does not." (Merchant 2008:148)
 - a. *The radio played a song that RINGO wrote, but I don't know who else. (the radio played a song that t wrote)
 - b. I only played a song that RINGO wrote because you did (play a song that t wrote)

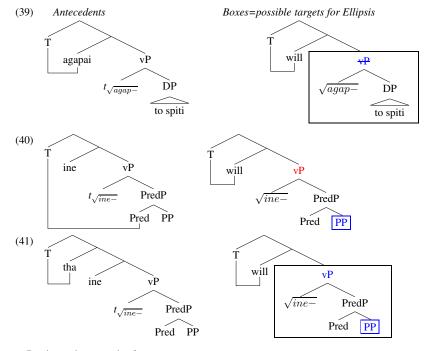
AN ANALYSIS

- "island-escaping focus movement cannot target the highest IP ... [this] will prevent the correlate
 from attaining the necessary scopal parallelism with the wh-phrase (clause-external), and hence
 these clauses can never satisfy the identity requirement needed to license deletion" (Merchant
 2008:151)
- (38) I only RINGO_F λx [VP [VP played a song that x wrote] because you did play a song that x wrote]

THREE INGREDIENTS TO THE SOLUTION

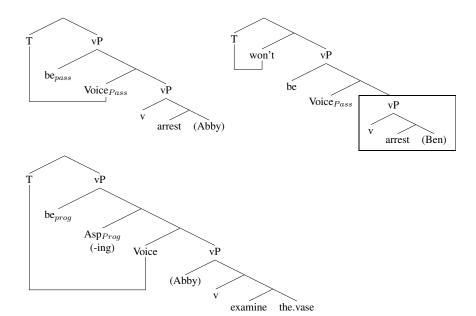
- 1. There is a **grammatical dependency** between the head of the clause (T? Fin? C? $Pol/\Sigma/X$?) and the highest 'clause-typing' or syntactically active head
- 2. English \sqrt{be} and Greek \sqrt{ine} are not participants in this dependency (e.g., because \sqrt{be} isn't a real tense bindee/finiteness valuator or event marker: the head of the nonverbal predicate is)
- Head movement can change the position of the bindee/valuator: it makes the binding/valuation relation more local (feeds higher binding/closer valuation/feature satisfaction), and this derived dependency must satisfy Parallelism

(Open question: what is the nature of the grammatical dependency between $C/T/Pol/\Sigma/X$ and agapai/will/Pred/etc.? Is it binding of a variable (tense or event), is it valuation on C/T/... of some feature (finiteness, predication, Pol?), is a (possibly nonlocal) selection by the higher head for a non-be predicational head?



Passive and progressive be:

- (42) Passive
 - a. Abby was arrested at the protest, though Ben wasn't. <arrested at the protest>
 - b. Abby will be arrested at the protest, though Ben won't (be).
 - c. Abby was arrested at the protest, though Ben won't *(be).
- (43) Progressive
 - a. Abby was examining the vase, and Ben was, too. <examining the vase>
 - b. Abby will be examining the vase, and Ben will, too. <examine the vase>
 - c. *Abby was examining the vase, and Ben will be examining the vase, too.
 - d. The dropped wifi signal was really eating Abby, and the lack of HDMI cables was really eating Abby too.
 - e. *The dropped wifi signal was really eating Abby, and the lack of HDMI cables will really be eating Abby, too.



3 Rebinding

QUANTIFIED ANTECEDENTS CAN LICENSE DELETION OF PRONOUNS

- (44) a. I met with every suspect₁, though most₂ claimed I hadn't.
 - b. Everyone₁ helped, though most₂ weren't sure why.

The trace of QR in the antecedent is equivalent to a pronoun bound by the local, c-commanding quantifier: this is 'rebinding' (of the trace, construed as a pronoun, by a new quantifier):

(45) a. ... most₂ claimed I hadn't [met with them₂].

Rebinding, ineffability, and the limits of accommodation

b. ... most₂ weren't sure why [they₂ helped].

Not telescoping, and impossible if the rebinding quantifier has a different restriction.

- [Imagine that *cops* and *suspects* are disjoint sets] I met with every suspect₁, though most cops₂ claimed I hadn't.
 - a. = $[met with \{every suspect/them_1\}]$
 - b. \neq [met with x_2]

These anaphoric possibilities track set/subset relations (assume: $lifer \subset inmate$). Compare the interpretations available in for (47) and (49) to those possible for (48) and (50):

- (47) I met with every inmate₁, though {many/most} lifers₂ said I hadn't.
 - a. = [met with them₁], or
 - b. = $[met with them_2]$

- (48) I met with every lifer₂, though {many/most} inmates₁ said I hadn't.
 - a. = $[met with them_2]$
 - b. \neq [met with them₁]
- (49) I met with most inmates₁, though many lifers₂ didn't want me to.
 - a. = [meet with {most/the} inmates], or
 - b. = [meet with them₂]
- (50) I met with most lifers₂, though many inmates₁ didn't want me to.
 - a. = [meet with {most/the} lifers]
 - b. \neq [meet with them₁]
- (51) GENERALIZATION: When the restriction of the second quantifier is a subset of that of the first, rebinding is possible (as indicated in (47b) and (49b)); otherwise, rebinding is not possible.

ANALYSIS

- Copy theory of A'-movement: the restriction in situ is [x suspect], interpreted as a definite description (see Sauerland 1998, Fox 2000).
- Pronouns are themselves minimal spell-outs of such definite descriptions (as in the traditional analysis of E-type pronouns; see Elbourne 2005)—the same interpretive restrictions are found with overt pronouns in the equivalent deaccented counterparts:
- (52) I met with every suspect₁, though most cops₂ claimed I hadn't met with them $\{1/*2\}$.

Traces of OR show 'vehicle change' effects as well:

- (53) a. Since you are allergic to bis disulfide, you should drink no wine if its label says you shouldn't.
 - b. [no wine][λ_1 [you should drink [[THE 1] wine]]]
 - c. if its label says you shouldn't <drink [[THE 1] wine]]]>

Consequences: Rebinding

- (54) I met with every inmate₁, though {many/most} lifers₂ said I hadn't.
 - a. = [met with $them_1$], or
 - b. = $[met with them_2]$
- (55) $VP_A = [meet with [[the 1] inmate]]$
- (56) most lifers λ_2 said I hadn't <met with [[the 2] inmate]>
- (57) a. $\{x | x \text{ said I hadn't met with } x\}$ defined only if $x \in inmate$
 - b. #My son₂ forgot her₂ book.
 - $\lambda x : x \text{ is female}[x \text{ forgot x's book }]$

 $\{x|x \text{ forgot } x\text{'s book }\}\ \text{defined only if } x \in female$

- c. $\operatorname{Det}_{r}(P_{r})(Q_{r})$ is defined only if $P \subseteq \operatorname{Presupp}(Q_{r})$
- d. $son \not\subseteq female, inmate \not\subseteq lifer$
- e. My child2 forgot her2 book.
- f. But $child \not\subset female$!

Cf. the behavior of bound definites:

- (58) [Almost every math teacher]₁ pointed out that we parents had failed to object to [the teacher]₁'s assignments when they were given.
- (59) *[Almost every teacher]₂ pointed out that we parents had failed to object to [the math teacher]2's assignments when they were given.
- (60) 'NO BAIT AND SWITCH': A bound variable (whether pronominal or definite) cannot introduce a presupposition that the set quantified over is a proper subset of restriction on the quantifier. (Cf. Maximize Presupposition, Maximize Informativity)

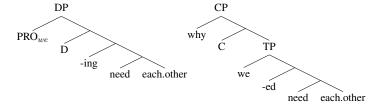
ACCOMMODATION: $lifer' \subset inmate'$, $math.teacher' \subset teacher'$, so the projected presupposition of the definite article is satisfied

- (61) I met with every lifer2, though {many/most} inmates1 said I hadn't.
 - a. = [met with them₂]
 - b. \neq [met with them₁]
- (62) $VP_A = [\text{meet with } [[\text{the 2}] \text{ lifer}]]$
- (63) most inmates λ_1 said I hadn't <met with [[the 1] lifer]>
- Here, accommodation fails: lifer is a proper subset of inmate, so the constraint in (60) is violated

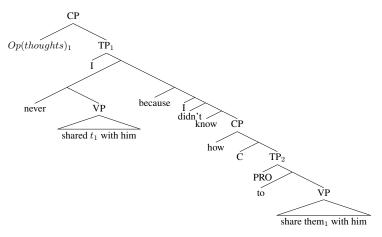
4 Rocks and hard places

Fox 1999 conceives of accommodation as a way of constructing a better antecedent for a mismatched $A \sim E$ pair. E is licensed just in case there is an A = E or an A' minimally different from A (formed by replacing words or phrases as necessary, such that $A' \in [\![E]\!]^f$ and there is 'accommodation-seeking material' external to E)

- Designed to block accommodation in the famous Rooth 1992 pair:
- (64) 7 is greater than or equal to itself, and 5 is, too.
- (65) #7 is greater than or equal to 7, and 5 is, too.
 - But how do we *allow* such antecedent-accommodation in many other cases? ...while not letting in voice mismatches in sluicing (which Fox's condition does). E.g.:
- (66) And yet we still kept at it, year after year ... of needing each other and not knowing why. (Vu Tran, *Dragonfish*, 2015, p. 29)



(67) I had written six pages, recounting ... thoughts I never shared with him because I did not know how. (Vu Tran, *Dragonfish*, 2015, p. 193)



5 Conclusions

- Warner's puzzle is found in code-switching with Greek antecedents: therefore, its analysis can't rely on idiosyncrasies of English verbal morphology or of auxiliary movement
- 2. There are ineffable phrases
- 3. Strict (LF) identity conditions (even with accommodation) rule out too much
- 4. Ellipsis continues to provide hard puzzles

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