

Argument Ellipsis as *pro*-replacement after TRANSFER

1. The theoretical challenge of Argument Ellipsis (AE). The two dominant approaches in ellipsis studies are PF-deletion and LF-copying. While PF-deletion has been the leading approach to Sluicing, VP-ellipsis and NP-ellipsis, LF-copying has been the leading approach to AE (Saito 2007, 2017, Takahashi 2008, 2014, Sakamoto 2020). However, in this study I show that in Hebrew, where AE as in (1) is a productive process (Landau 2018), it displays conflicting properties (throughout, undelimited represent ellipsis sites).

- (1) Dani ohev et ha-šxuna šelo ve-Yosi sone ____.
Dani loves ACC the-neighborhood his and-Yosi hates
'Dani loves his neighborhood and Yosi hates it/his.' ✓*strict*, ✓*sloppy*

On the one hand, overt material can be extracted from AE sites, which is only compatible with PF-deletion (LF objects being stripped of phonological features). On the other hand, the range of arguments eligible for AE is *semantically* defined, which is only compatible with LF-copying (PF having no access to semantic properties). The paradox is resolved under the proposed analysis, which is strongly derivational.

2. Overt extraction out of AE sites. One can replicate Ross's (1969) classical argument that Sluicing involves deletion for clausal AE. The obligatory dative marker on the extracted argument is evidence for morphosyntactic connectivity with the clause-internal base position (selected by *hirbic* 'beat').

- (2) **le**-axiv, ani batuax še-Yosi haya marbic, aval **le**-/***et** axoto, ani lo batuax ____.
to-brother.his I sure that-Yosi was.3SG.M beat.PRTC.SG.M but to-/*ACC sister.his I not sure
'His brother, I'm sure Yosi used to beat, but his sister, I'm not sure he used to.'

Recently, Takahashi (2020) argued that overt extraction (of focus in clefts) out of elided clauses is also possible in Japanese, contrary to earlier claims (based on long-distance scrambling).

3. The semantic restriction on AE. The main empirical contribution of the present study lies in the following generalization.

- (3) Elided arguments must be of type <e> (individual-denoting).

It follows that non-denotational arguments or higher-type arguments should resist AE. Furthermore, weak definite pronouns, being similarly restricted to denoting individuals, should likewise be banned from such positions. This is verified by testing (i) chunks of non-decomposable idioms; (ii) obligatory adverbial arguments; (iii) argumental measure phrases; (iv) names in naming verbs, and (v) predicate nominals. Due to space limitations, only cases (ii), (iii) and (v) are illustrated below. In the talk I will present additional data from Korean that reveal exactly the same restriction.

- (4) * Yosi hitnaheg yafe aval axiv lo hitnaheg ____.
Yosi behaved.3M.SG well butbrother.his not behaved.3M.SG
'(Yosi behaved well but his brother didn't.)'

- (5) A: ha-simla ha-kxula ola 220 dolar.
the-dress the-blue costs.3F.SG 220 dollar
'The blue dress costs \$220.'
B: * ve-gam ha-simla ha-aduma ola ____ / otam?
and-also the-dress the-red costs.3F.SG them
'(And does the red one also cost \$220?)'

- (6) * hi hafxa le-menahet axarey še-ha-bat šela hafxa ____ / la.
she turned to-manager after that-the-daughter her turned to.her
'(She turned into a manager after her daughter had.)'

4. The broader constraint. (3) is a special case of (7), adapted from Landman 2006, which appears in various forms in other works too (the *No Functor Anaphora* constraint of Chierchia 1984, the *Trace Interpretation Constraint* of Poole 2017).

(8) *No Higher-Type Variables Constraint (NHTV)*
Variables in natural languages are of type $\langle e \rangle$.

Thus, both simplex anaphoric pronouns and movement traces are restricted to taking individual-denoting antecedents (this category embraces both entities (DP ellipsis) and propositions (CP ellipsis), the latter taken to be individuals of a special kind, see Moltmann 2013). This implies that (i) property-anaphora involves either complex pronouns or type-shifting, and (ii) movement of predicates must reconstruct (eliminating the offending variable at LF), which is indeed the case (Huang 1993, Heycock 1995, Takano 1995). If AE sites are just such variables, that would explain why they pattern together with weak definite pronouns (see (5)-(6); in (4), a pronoun cannot be used because the missing constituent is not nominal) in failing to occur as arguments of types distinct from $\langle e \rangle$.

5. The analytic puzzle. Clearly, NP- and VP-ellipsis target predicative constituents. However, because they arise by PF-deletion, the ellipsis site throughout the syntax and up until LF is not a variable but a full syntactic structure, which should be (and indeed is) exempt from (3)/(8). Hence, AE cannot be derived by PF-deletion. Meanwhile, if LF-copying directly merges a (silent) constituent in the ellipsis site, with no mediating variable, it too should not be subject to the NHTV. What mechanism of ellipsis, then, can do justice to both the extraction facts in (2) and the semantic type restriction (3)?

6. Analysis: *pro*-replacement after TRANSFER. A *pro*-replacement analysis (Lobeck 1995, Sakamoto 2020) is precisely equipped to derive surface anaphors from deep anaphors. We adopt it with one important innovation: *pro*-replacement, or simply External Merge in the ellipsis site, may occur *after* TRANSFER. This possibility becomes natural, indeed inescapable, if Internal Merge after TRANSFER is also possible; the latter is nothing but "covert/LF movement" (Chomsky 2004). Given that Merge itself cannot distinguish between objects from within the derivation (IM) and objects from without (EM), it should be able to apply to "copies" of antecedent phrases, and substitute them for *pro*. Note that anything but a true copy will be ruled out on grounds of Recoverability, so overgeneration is not risked. Importantly, (3) follows by transitivity: *pro*, being a variable, must be of type $\langle e \rangle$, hence any substitute for it inherits this property too. Extraction is still allowed by the derivational logic of phases. After TRANSFER of the AP spellout domain in (2), the clausal argument replaces *pro*, with the to-be-extracted PP at its edge; following merge of the phase head (say, light *a*), this PP is extracted. Crucially, because the PP did not undergo TRANSFER in its base position, it is still endowed with spellout instructions, to be executed at the next spellout point. Whatever remains *in situ*, however, will stay unpronounced.

7. Implications. The present proposal is nearly the opposite of the proposals in Tomioka 2003 and Bošković 2018, where AE is said to target only $\langle e, t \rangle$ -type constituents. The latter is incompatible with the evidence in (6), also documented in other languages – predicate nominals *resist* AE. Both views, however, predict that strong quantifiers will also resist AE (being neither type $\langle e \rangle$ nor $\langle e, t \rangle$) – a prediction not shared by most accounts of AE. Indeed, alleged evidence of QP ellipsis is restricted to *weak* quantifiers (e.g., *three students*). Carefully constructed examples that target *strong* quantifiers demonstrate that they resist AE (e.g., when forced to scope under negation; Hebrew and Korean data omitted for space reasons). The emerging picture of AE is strongly derivational: Semantic sensitivity testifies to its origin as a deep anaphor (*pro*), while morphological content testifies to its subsequent conversion into a surface anaphor.

Selected references. Bošković, Ž. 2018. On Pronouns, Clitic Doubling, and Argument Ellipsis: Argument Ellipsis as Predicate Ellipsis. Chierchia, G. 1984. *Topics in the Syntax and Semantics of Infinitives and Gerunds*. Chomsky, N. 2004. Beyond Explanatory Adequacy. Landau, I. 2018. Missing Objects in Hebrew: Argument Ellipsis, not VP Ellipsis. Landman, M. 2006. *Variables in Natural Language*. Poole, E. 2017. *Movement and the Semantic Type of Traces*. Sakamoto, Y. 2020. *Silently Structured Silent Argument*. Amsterdam: John Benjamins.