(A)Symmetries in Asante Twi object extractions

Background: In Asante Twi, there is a surface asymmetry in object extraction. While animate objects obligatorily require a resumptive pronoun to occur in the root position of the dependeny (1-a) there is a gap in this position when the object is inanimate (1-b) (Saah 1988, 1994).

(1) a. Hwáń$_1$ na Yaw pɛ́ {*__$_1$ / no$_1$}?
who FOC Yaw like 3SG.O
'Who does Yaw like?'

b. Dɛ́ɛ́n$_1$ na Yaw pɛ́ {__$_1$ / *no$_1$}?
what FOC Yaw like 3SG.O
'What does Yaw like?'(Korsah & Murphy 2019)

Nonetheless, syntactically both the gap and the pronoun behave alike. Both also appear in long-distance extraction (2) and are island insensitive (3) (Saah 1994, Korsah 2017).

(2) a. {Hwáń$_1$ / Dɛ́ɛ́n$_2$} na Kwame níḿ sɛ́ Ámá hú-u {__$_{*1/2}$ / nó$_{1/*2}$}?
who what FOC Kwame know that Ama see-PST 3SG.O
'Who/What does Kwame know that Ama saw?'

b. {Hwáń$_1$ / Dɛ́ɛ́n$_2$} na wo-níḿ onipa ko áa o-hú-u {__$_{*1/2}$ / nó$_{1/*2}$} nó?
who what FOC 2SG-know person DEF REL 3SG.S-see-PST 3SG.O CD
'Who/What do you know the person who saw (it/him)?'

Despite island-insensitivity, it has been argued that they involve Ā-movement. Evidence comes from binding and scope reconstruction (also into islands), weak crossover, as well as a tonal reflex associated with an Ā-movement dependency (all low-toned verbs between filler and gap/RP become high-toned, Korsah & Murphy 2019, henceforth K&M). They have thus been symmetrically analysed as instances of Ā-movement leaving a resumptive pronoun which is deleted by a PF-rule in case it is inanimate. This analysis is corroborated by the fact that the inanimate pronoun does show up (i.e. the rule is suspended) in three contexts involving clause-final adverbs (3), change-of-state verbs and secondary predicates (Korsah 2017).

(3) Aduane nó$_1$ na Kofí pɛ́ *(nó$_1$) anɔpá.
food DEF FOC Kofi like 3SG.O morning
'It's the food that Kofi likes in the morning.'

Under K&M's analysis, RPs are spell-outs of lower copies (converted into a pronoun) and islands are representational constraints at PF (cf. Merchant 2001, Boeckx 2012) whose violations can be circumvented by spelling out these lower copies. There is thus a surface asymmetry (gap vs. RP) blurring an underlying symmetry (RP vs. RP). On the other hand, there are Ā-dependencies, like VP and PP extraction, which leave a true (syntactic) gap evidenced by the fact that the gap persists even in the abovementioned environments (i.e. clause-final adverbs, etc.) (4).

(4) a. [$_{PP}$ Akonwá nó mú] na Kofí dá {__$_{PP}$ / *hɔ } anɔpá.
chair DEF in FOC Kofi lie there morning
'Kofi is lying IN THE CHAIR in the morning.' (K&M)

b. [$_{VP}$ Dán sí]-é na Ámá ká-a sɛ́ Kofí á-yɔ́ {__$_{VP}$ / *nó }.
house build-NMLZ FOC Ama say-PST that Kofi PERF-do it
'Ama said that Kofi BUILT A HOUSE (not bought a car).' (Hein 2017)

Like DP-extractions, these dependencies show Ā-movement characteristics (tonal reflex, reconstruction). In contrast to DP-extractions, however, these are island-sensitive (5), hinting at the fact they leave a true gap.

(5) a. *[$_{PP}$ Akonwá nó mú] na Ama níḿ neá ńtí áa Kofi dá __$_{PP}$.
chair DEF in FOC Ama know thing because.of REL Kofi lie
'Ama knows te reason why Kofi lies IN THE CHAIR.' (K&M)

b. ?*[$_{VP}$ Dán sí]-é na mé-n-té-e atétɛ́ɛ́m bíárá sɛ́ Kofí á-yɔ́ __$_{VP}$.
house build-NMLZ FOC 1SG-NEG-hear-PST rumour.PL any that Kofi PERF-do
'I didn't hear any rumours that Kofi has BUILT A HOUSE.' (Hein 2 017)

We thus have a syntactic asymmetry (RP vs. true gap) resulting in a surface asymmetry (RP vs. PF-gap). **Novel observation:** Based on partly novel data, we observe that non-referential objects, i.e. generic expressions, parts of idioms, non-specific indefinites, or inherently non-referential quantifiers (Chen 2009) always leave a gap, even if animate or in one of the special contexts (6).

(6) a. Ne-nán$_1$ na ɔ-gyá-ɛ {__$_1$ / *nó } [$_{PP}$ wɔ dán nó mú].
3SG.POSS-leg FOC 3SG.S-leave-PST 3SG.O LOC room DEF inside
Id.: 'It's defecating that he did in the room.' Lit.: 'It's his leg that he left in the room.'(K&M)

b. Nipa$_1$ na Kofi suro {__$_1$ / *nó } paa.
person FOC Kofi fear 3SG.O really
'It's people that Kofi really fears.'

That is, they seem to leave a true gap in their base position rather than a PF-deleted resumptive, patterning with VP and PP extraction. Intriguingly, though, they show the same island-insensitivity as referential DP objects. (7).

(7) a. Ne-nan$_1$ na m-a-te atesɛm bi sɛ ɔ-gya-ɛ {__$_1$ / *nó$_1$ }
3SG.POSS-leg FOC 1SG.S-PERF-hear rumour INDEF that 3SG.S-leave-PST 3SG.O
wɔ dán nó mú.
LOC room DEF inside
Id.: 'It is defecating that I have heard a rumour that he did in the room.'
Lit.: 'It is his leg that I have heard a rumour that he left (it) in the room.'

b. Nipa$_1$ na wo-te-e atesɛm nó sɛ Kofi suro {__$_1$ / *nó$_1$ } paa.
person FOC 2SG.S-hear-PST rumour DEF that Kofi fear 3SG.O really
'It's people that I have heard the rumour that Kofi really fears.'

Thus, they are surface asymmetric compared to referential objects, but syntactically, there is no difference between the two. We thus have the following overall picture.

(8)

	$DP_{ref.}$	$DP_{non\text{-}ref.}$	VP/PP
true gap	no	yes	yes
island-sensitive	no	no	yes

Consequences: (i) There must be at least two different types of $\overline{A}$-movement (cf. Postal 1994, Poole 2019), one which respects islands (VP/PP-extraction) and one which does not (ref. DP-extraction). The latter, however, cannot be analysed as base generation (as is often done for topicalizations) due to the $\overline{A}$-characteristics, in particular the tonal movement reflex. (ii) One and the same movement type can leave behind a (true) gap or an RP, supporting Postal's (1994) findings that the choice between gap/RP is not necessarily related to different extraction types. (iii) Islands cannot be representational constraints at PF as both true gaps (non-ref. DPs) and RPs (ref. DPs) void island violations. One might even suggest that islands as such are absent from the language entailing that there are independent reasons for the impossibility of VP/PP-extraction from island-like configurations. One such reason (at least for VPs), following Poole (2019), would be that they are property types ($\langle\langle e\rangle,\langle e,t\rangle\rangle$) and hence must reconstruct at LF. Under the assumption that islands are LF-constraints prohibiting reconstruction, the island-sensitivity of VP-extraction follows straightforwardly. **Analysis:** That referential XPs leave behind RPs while non-referential ones leave behind gaps can be derived from two independently proposed ideas: (i) RPs spell-out the D-head of movement copies from which the NP-part has been deleted (= partial copy deletion, Landau 2006, van Urk 2018; cf. Postal 1969, Elbourne 2001). (ii) Referential XPs are structurally bigger (DPs, Stowell 1991) than non-referential ones (no D-layer, NPs; cf. a.o. Higginbotham 1987, Rullmann & Beck 1998, Chierchia 1998, Lopez 2012). When partial copy deletion applies to a referential copy [$_{DP}$ D ~~NP~~], the remaining D-head is realized as an RP. When partial deletion applies to non-referential XPs [~~$_{NP}$ ... ~~], nothing remains and we get a gap. **Subjects:** The same division into referential XPs, non-referential ones, and VPs is found with subject extraction where we find the animate subject pronoun */o/* with referential (animate) subjects but the inanimate subject pronoun */e/* for non-referential animate and inanimate subjects as well as VP-subjects. However, here the analysis must treat */e/* (corresponding to the gap in object extraction) as an expletive since non-referential NPs lack the D-layer that is stranded and pronounced as the RP.