Asymmetries in Asante Twi Ā-movement
On the role of noun type in resumption

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Introduction
▶ literature on AT resumption: The choice between gap/RP is determined by the $[\pm N]$ feature of the extractee: nominals leave an RP, non-nominals a gap

We argue for the following:

- The $[\pm N]$-status of the extractee is not decisive: some nominals have to leave a gap, too. The crucial factor rather seems to be a semantic/pragmatic one, reminiscent of **referentiality**: only “referential” extractees leave an RP.

- We model this apparent semantic effect on resumption as a **structural difference**: the presence/absence of a D-shell in the extractee.

- Coupled with the partial deletion account of RPs under the copy theory of movement, this derives the distribution of gaps/RPs.

- AT exhibits a preference of an RP over a gap when possible – a pattern that is in conflict with economy constraints such as Avoid Pronoun.
1. Introduction

2. Previous work

3. New observation

4. Analysis

5. Consequences and further issues

6. Conclusion
Previous work
Focus fronting of nominal XPs always leaves an RP in syntax – though the RP remains unpronounced with inanimate antecedents.

Animate elements leave an overt RP (1).

(1) Overt RP with animate extractee

Hwáń1/Kofi1 na Yaw pê \{*_1 / no_1\}? who/Kofi foc Yaw like 3sg.o

‘Who does Yaw like? / It’s Kofi who Yaw likes.’

Inanimate elements leave a surface gap (3).

(2) Apparent gap with inanimate extractee

Déén1/[kíataá nó]1 na Yaw pê \{_1 / *no_1\}? what/book def foc Yaw like 3sg.o

‘What does Yaw like? / It’s the book that Yaw likes.’ (KM 2020)
The ‘gap’ with inanimates is in fact an unpronounced RP (either a null RP, Saah 1994; or a PF-deleted RP, Korsah 2017, KM 2020).

Evidence: The RP is forced to be overt
- when followed by a clause-final adverb (3),
- with change-of-state verbs (4),
- and with secondary predicates.

(3) Overt inanimate RP with clause-final adverb
\[
[Aduane\ nó]_1\ na\ \text{Kofi\ pē\}^{*\mathcal{B}_1 / \mathcal{N}_1}\ \text{anpā.}
\]
food the FOC Kofi like 3sg.o morning
‘It’s the food that Kofi likes in the morning.’

(KM 2020)

(4) Overt inanimate RP with change-of-state verb
\[
[Akonwa\ nó]_1\ na\ \text{Kofi\ bū-u\}^{*\mathcal{B}_1 / \mathcal{N}_1}.
\]
chair the FOC Kofi break-PST 3sg.o
‘It’s the chair that Kofi broke.’

(KM 2020)
Focus fronting of non-nominal XPs (VPs, PPs) leaves true gaps (even when followed by a clause-final adverb).

(5) **True gap with PP-focus**

\[
[\text{PP Akonwá nó mú }] \text{ na Kofi dá } \{ \text{___pp} / *hɔ} \} \text{ anɔpá.}
\]

chair the in foc Kofi lie there morning

‘Kofi is lying IN THE CHAIR in the morning.’

(KM 2020)

(6) **True gap with VP-focus**

\[
[\text{VP Dán sí}]-é \text{ na Ámá káa sé Kofi á-yó } \{ \text{___VP} / *nó} \}
\]

house build-NMLZ foc Ama say.pst that Kofi pfv-do 3sg.o

anɔpá.

morning

‘Ama said that Kofi BUILT A HOUSE in the morning (not bought a car).’

Both the gap and the (overt/null) RP cases involve movement.

**Evidence** (KM 2020): reconstruction effects, tonal reflex of movement
Movement of nominal XPs (overt or null RP): is not island-sensitive → island violation repaired by resumption

(7) Animate object extraction from island leaving overt RP

Hwán₁ na wo-ním [DP onipa ko [CP áa ɔ-bóɔ ʃə₁ nò₁ nò₁]]?

who foc 2sg-know person the REL 3sg.s-hit.pst 3sg.o cd

‘Who do you know the person who hit (him)?’ (KM 2020)

(8) Inanimate object extraction from island leaving surface gap

Déèn₁ na wo-ním [DP onipa ko [CP áa ɔ-tóɔé ___₁ nò₁]]?

what foc 2sg-know person the REL 3sg.s-buy.pst cd

‘What do you know the person who bought (it)?’ (KM 2020)
Movement of non-nominal XPs (true gap): **is island-sensitive**

→ no RP present to repair the island violation

(9) **PP-extraction from island results in ungrammaticality**

\[
* \text{[PP Akonwá nó mú ] na Ama ním [DP neá ŋtí [CP áa Kofi chair the in foc Ama know thing because.of REL Kofi dá ——PP ]].}
\]

lie

‘Ama knows the reason why Kofi lies in the chair.’  

(KM 2020)

(10) **VP-extraction from island results in ungrammaticality**

\[
* \text{[VP Dán sí]-é na mé-n-tée [DP atétésém bíárá [CP house build-NMLZ foc 1SG-NEG-hear.PST rumour.PL any sé Kofí á-yó ——VP ]].}
\]

that Kofi PFV-do

‘I didn’t hear any rumours that Kofi has BUILT A HOUSE.’  

(Hein 2017)
Previous work: summary

- asymmetry between nominal (RP) vs. non-nominal extractees (gap)
- correlation: RPs (overt or silent) repair islands

(11) Interaction of category $[\pm N]$, gap/RP and islandhood:

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New observation
Observation

- source: elicitation sessions with 5 native speakers
- Extraction of some [+N]-elements, even animates, results in a true gap ⇒ The [±N]-status of the extractee is not a sufficient predictor of gap vs. RP.
- [+N]-elements that leave a gap are parts of idioms, predicative nouns, kind/generic expressions, and non-specific indefinite nouns.
- Other [+N]-elements, such as pronouns, proper names, and definite nouns consistently leave a RP (see the examples from the literature).
- Thus, it seems to be a semantic property ("referentiality") of the nominal that determines whether it leaves a gap or an RP upon extraction
This example already appears in KM (2020) but they do not discuss the absence of an RP.

(12) **Neutral declarative baseline**

\[ \text{če-gya-a ne-nán } [\text{PP wə dán nó mú }]. \]

3SG.s-leave-pst 3SG.poss-leg LOC room def inside

Id.: ‘He defecated in the room.’

Lit.: ‘He left his leg in the room.’  (KM 2020)

(13) **Ex-situ focus of inanimate idiomatic object**

\[ \text{Ne-nán}_1 \text{ na } \text{če-gyáe} \{ \underline{\ldots}_1 / *\text{nó}_1 \} [\text{PP wə dán nó mú }]. \]

his-leg foc 3SG.s-leave.pst 3SG.o LOC room the inside

Id.: ‘It’s defecating that he did in the room.’

#Lit.: ‘It’s his leg that he left in the room.’  (KM 2020)
Observation: Predicative nouns

- Predicative nouns like *tikyani* ‘teacher’ leave a gap, despite their animacy and the clause-final adverb (14).

(14) **Context:** Kofi is about to graduate this year.

**Kwame claims:**

a. Kofi be-yɛ ɖɔkɔta afe yí.
   Kofi fut-be doctor year this
   ‘Kofi will become a doctor this year.’

But Ama knows that this is not correct and says:

b. Tikyani₁ na Kofi be-yɛ {___₁ / *nó₁} afe yí.
   teacher foc Kofi fut-be 3sg.o year this
   ‘It is a teacher that Kofi will become this year.’
Observation: Kind/generic expressions

- Nouns used with a kind or generic interpretation like *nkraman* ‘dogs’ leave a gap, despite their animacy and the clause-final adverb (15).

(15) **Context:** Ama, Esi and Kofi talked about what they were really afraid of when they were little children. Later, Ama and Esi tell Kwasi about their conversation. Ama says:

a. Kofi suro-o mpan paa.
   - Kofi fear-pst bat.pl really
   - ‘Kofi really feared bats.’

But Esi corrects her:

b. Daabi. **Nkraman**₁ na ɔ-suro-o {___₁ / *wɔn₁} paa.
   - no dog.pl foc 3sg-fear-pst 3pl.o really
   - ‘No. He really feared DOGS.’
Observation: Non-specific indefinites

- Bare nouns that are interpreted as non-specific indefinites like *kyerekyereni* ‘teacher’ leave a gap, despite the clause-final adverb (16).

(16) **Context:** You’re a new student at a school and tell a classmate that you’re planning to rent a school uniform instead of buying one. However, you don’t know if that’s possible. Your classmate asks:

a. Wo-be-bisa headmaster no?
   2SG-FUT-ask headmaster DEF
   ‘Will you ask the headmaster?’

But you didn’t want to bother the headmaster with this so you say:

b. Daabi. *kyerekyereni* na me-be-bisa { __1 / ??no1 } kane.
   no teacher FOC 1SG-FUT-ask 3SG.O first
   ‘No. I will ask a (RANDOM) TEACHER first.’ (i.e. one of the many teachers around)
It is not true that focus-fronted nominal constituents consistently leave a (overt or covert) RP as opposed to non-nominal constituents, which leave a true gap. Rather, the interpretational/referential type of the nominal seems to play a role.

(17) Updated table:

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That pronominal elements are sensitive to referential properties of their antecedents has been observed before.

- Clitics have been noted to be sensitive to referentiality (Suñer 1988; Anagnostopoulou 2017)
- RPs in relative clauses have been noted to be sensitive to specificity e.g. in Hebrew, Italian (Doron 1982; Sharvit 1999; Bianchi 2004; Sichel 2014)

(18) Dani yimca et ha-iša [ še hu mexapes ___ / ota ]
Dani find.FUT ACC the-woman C he seeks her
“Dani will find the woman he is looking for.” (Hebrew, Doron 1982)

with RP: ✓ de re, *de dicto
with gap: ✓ de re, ✓ de dicto

- Pronominal markers that double full NPs also dependent on referential properties of the subject (e.g., Baker and Kramer 2018).
Analysis
Source of the split between Ns

- What’s the difference between XPs that require an RP under extraction (referential nominals, non-nominals) and those that don’t?

- **Proposal**: we can derive this from two independently motivated assumptions
  
  1. structural difference between the noun types: DPs vs. NPs
  2. RPs are the spell-out of the D-head of a DP-copy whose NP-subpart has been deleted (partial copy deletion), cf. Postal (1969); Elbourne (2001)

(19) \[
\text{[DP D NP]} \rightarrow \ldots [\text{DP D } \text{NP}]
\]

\[
\downarrow
\]

RP

- background: cross-linguistically (and also in AT), RPs are (personal) pronouns (Asudeh 2011, 2012; McCloskey 2017); pronouns are of category D (Postal 1969; Abney 1987)
Source of the split between Ns

Gap-leaving elements: absence of D-head

- VP, PP
- predicate N: are predicates of type \( \langle e, t \rangle \) (type \( \langle e \rangle \) achieved by combination with D, cf. Longobardi 1994, Partee 1987)
- kind-expression: structurally smaller than Ns of other types which we interpret as the lack of a D-layer (Chierchia 1998)
- non-spec. indef.: NPs rather than DPs (a.o. Higginbotham 1987; López 2012)
- idiomatic N: potential problem; possibly more rigid, i.e. opaque partial deletion

RP-leaving nominals: presence of D-head

- proper names: are of category D (Longobardi 1994)
- definite Ns with an overt D – obvious
- specific Ns without an overt D: analyzed as containing a variable over choice functions (Reinhart 1997; Winter 1997; Kratzer 1998; Matthewson 1999) commonly assumed to be hosted in a D-head
Supporting evidence

- Elements without a D-layer are also difficult to be taken up by a discourse anaphoric pronoun.

(20) *Idiomatic extractee*

a. ɔ-gya-a ne-nán wo dán nó mú.
   3sg.s-leave-pst 3sg.poss-leg loc room def inside
   ‘He defecated (lit.: left his leg) in the room.’

b. *Na ɛ-a-bu.
   pst 3.inan.s-pfv-break
   ‘It was broken.’

(21) *Non-specific indefinite extractee*

a. Kofí kan křataá.
   Kofi read paper
   ‘Kofi reads (a) newspaper.’

b. ?ɛ-yɛ aniká.
   3.inan.s-be interesting
   ‘It is interesting.’

(22) *Predicative noun extractee*

a. Kofí yɛ tíkya.
   Kofi be teacher
   ‘Kofi is a teacher.’

b. ?ɛ-yɛ adwúmá pa.
   3.inan.s-be work good
   ‘It is a good job.’
Application of copy deletion

- full copy deletion applies to intermediate copies in a chain
- partial copy deletion (NP-deletion) applies to the lowest copy in chain

Result of partial copy deletion:

(23) DP-extractee:
\[ [\text{DP} \ D \ \text{NP}] \rightarrow [\text{DP} \ [\square] \ \text{NP}] \]

(24) NP-extractee:
\[ [\text{NP} \ N \ \text{XP}] \rightarrow \ldots \ [\text{NP} \ N \ \text{XP}] \]

(25) VP-extractee:
\[ [\text{vP} \ v \ \text{VP}] \rightarrow [\text{vP} \ v \ \text{VP}] \]
An alternative: referentiality in syntax

Alternative: Referential Ns leave an RP, non-referential ones leave a gap

Problems:

- incompatible with the T/Y-model (semantics cannot influence syntax and PF) unless referentiality is encoded in the syntax (e.g., as a feature)
- The RP/gap divide does not perfectly track referentiality: no effect of D-linking (26-a, b) or quantifiers (every) (26-c)

(26) a. Hwáń₁ na Ámá hú-u {*_1 / nó₁} nnera?
   who foc Ama see-pst 3sg.o yesterday
   ‘Who did Ama see yesterday?’

b. [Papa bɛn]₁ na Ámá hú-u {*_1 / nó₁} nnera?
   man which foc Ama see-pst 3sg.o yesterday
   ‘Which man did Ama see yesterday?’

c. [ɔbáá biárá]₁ na Kofí hú-u {*_1 / nó₁} nnera.
   woman every foc Kofi see-pst 3sg.o yesterday
   ‘It is every woman that Kofi saw yesterday.’

⇒ The extractees in (26) are DPs. Presence of the RP follows from our account.
Consequences and further issues
Consequence: Avoid Gap

- our account: partial deletion applies obligatorily to the lowest copy
- usually: full deletion = default, partial deletion as a repair (a position needs to be spelled out); reasons:
  - special (non-structural) case (Pesetsky 1998)
  - particular phonological requirement (Landau 2006)
  - EPP (van Urk 2018)

⇒ Avoid Pronoun (Chomsky 1981, 1982; Montalbetti 1984)

Asante Twi:

- Partial deletion is the default
- Why should this be the case? Note: Gaps are allowed in this position.
- preference for RPs over gaps whenever the former are an option (pace Avoid Pronoun)
Islandhood

Interestingly, even though some types of nominals leave true gaps (like VPs, PPs), the dependencies are **not** island-sensitive (unlike VPs, PPs)!

(27) a. Ne-nán₁ na m-á-té [DP atésém bí [CP sé c-gyáɛ
his-leg FOC 1SG.s-PFV-hear rumour a that 3SG.s-leave.PST
{___₁ / *nó₁} wɔ dán nó mú ]].
3SG.o LOC room the inside
Id.: ‘It’s defecating that I have heard a rumour that he did in the room.’

b. Tíkya₁ na m-á-té [DP atésém nó [CP sé Kofi bé-ye
teacher FOC 1SG-PERF-hear rumour the that Kofi FUT-be
{___₁ / *nó} afe yí ]].
3SG.o year this
‘It is a teacher that I have heard the rumour that Kofi will become this year.’

c. Nnípa₁ na wo-té-e [DP atésém nó [CP sé Kofi sóró {___₁ /
person FOC 2SG.s-hear-PST rumour the that Kofi fear
*nó₁ / *wɔn₁ } páa ]].
3SG.o 3PL.O really
‘It’s people that I have heard the rumour that Kofi really fears.’
Consequences and further issues

Islandhood

(28) Distribution of gaps and RPs

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- KM’s (2020) explanation of island-repair by resumption cannot account for the whole pattern.
- If it is not the dichotomy between gap and RP, what then causes island-sensitivity?
- So far, it seems as if the category of the lexical head of the (extended) projection ([±N]) of the extractee matters (XPs with nominal core are not island-sensitive, those with a non-nominal core are) – why should that be the case? We leave this to future research.
Conclusion
Conclusions

(29) **Distribution of gaps and RPs**

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- A-extraction of nominal elements may result in either a gap or a pronoun, both are island-insensitive, *pace* claims in the literature
- The choice is dependent on the structural properties of the extracted nominal (DP vs. NP)
- A partial deletion account where RPs realize D-heads whose NP-complement has been deleted captures this split straightforwardly
- Consequence: There seems to be a preference for RPs over gaps when possible – conflict with economy principles like Avoid Pronoun.

▶ study of resumption: check more noun types!


Extension: Subject extraction
Subject extraction

Nominal subjects are usually doubled by an RP (o-/ɔ- for animates; e-/ɛ- for inanimates).

(30) a. Kofi na ɔ-pé sika.
   Kofi FOC 3SG.S-like money
   ‘It’s Kofi who likes money.’

   b. Hwáñ na o-hú-u ɔbáá nó?
      who FOC 3SG.S-see-PST woman DEF
      ‘Who saw the woman?’

   c. ɔbáá nó na ɔ-fá-a fie nó akyí.
      woman DEF FOC 3SG.S-pass-PST house DEF behind
      ‘It’s the woman who passed behind the house.’

(31) a. ɛbọc nó na ɛ-bó-ɔ mé.
    stone DEF FOC 3.INAN.S-hit-PST 1SG.O
    ‘The stone hit me.’

   b. Déén na ɛ-dá pónó nó só?
      what FOC 3.INAN.S-lie table DEF on
      ‘What lies on the table?’
The noun-types identified above (idiom parts, generic/kind) are doubled by the inanimate marker e-/ε- despite being animate (o-/ɔ-).

   3SG.POSS-self FOC EXPL-turn-PST
   ‘It’s her who became pregnant. / It’s her self that turned.’
b. Ne-hó na ɔ-dáné-εε.
   3SG.POSS-self FOC 3SG.s-turn-PST
   ‘#It’s her who became pregnant. / It’s her self that turned.’

(33) Báríma na e/*o-n-dí aduá.
    man FOC EXPL/3SG.s-eat beans
    ‘It’s men that don’t eat beans’
In addition, non-specific indefinites also take the inanimate marker

(34) Q: Did your mother tell you that it’s healthy to eat a lot of fruit?
      no doctor FOC EXPL-say say-PST 1SG.O COMP 3.INAN.S-be
      ‘No. A (non-specific) doctor told me that it is.’
   b. Daabi. Đọkẹtá na o-ká kyéré-ë mé së ë-ye.
      no doctor FOC 3SG.S-say say-PST 1SG.O COMP 3.INAN.S-be
      ‘No. The doctor told me that it is.’

Subjects show a similar split as objects

Difference:
   objects: RP vs. gap alternation;
   subjects: RP vs. {e/ë} alternation
Subject extraction

- Idea (in analogy to object extraction): these noun-types leave a gap which triggers insertion of an expletive.
- reason for expletive: phonological EPP? (position needs to be pronounced)
- Extracted VP-subjects also trigger presence of e-/ε-:

\[(35) \ [\text{VP} \text{ Dán sí}] \text{-é na Kofi nim sè ε/*ɔ-ye} \text{ den.} \]

house build-NMLZ FOC Kofi know comp EXPL/3SG.s-be difficult

‘It is building a house that Kofi knows is difficult.’
Subject extraction

- e-/ε- is used in expletive contexts

(36) a. ε-yε mé sε Kofì a-waré.
   expl-do/be 1sg.o comp Kofi pfv-marry
   ‘It appears that Kofi is married.’

b. ε-n-ye m-máá nó na e-hú-u m-marimá nó.
   expl-NEG-do/be pl-woman def foc expl-see-pst pl-man def
   ‘It was no woman who saw the men.’

c. ε-wɔ sé obíáá túmí kyéré n-ádweén.
   expl-be comp everyone can show 3sg.poss-mind
   ‘It ought to be the case that everybody is able to express their opinion.’
   (Korsah 2016: 113)
Optionality under local subject extraction

- Usually: $e-/ε-$ for inanimate subjects, non-nominal subjects ($e-/ε-$ = default); $o-/ɔ-$ for animate Ns
- Optionality for animate N-subjects in local extraction

(37) Kofi na ɔ/ε-káń-n křataá nó.
Kofi foc 3sg.s/expl-read-pst book def
‘It is Kofi who read the book.’

- No optionality in long-distance extraction

(38) Kofi na wo-nim se ɔ/*ε-káń-n křataá nó.
Kofi foc 2sg.s-know comp 3sg.s/expl-read-pst book def
‘It is Kofi who you know read the book.’

- unclear why the less specific/default element can be used for animate N-antecedents only under local subject extraction