

The absence of islands in Akan: The role of resumption

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Abstract

The precise nature of \bar{A} -dependencies that terminate in a pronoun has been a long-standing subject of cross-linguistic research. Traditionally, it has been assumed that there are two derivational strategies to form resumptive \bar{A} -dependencies: movement and base-generation. Island configurations have played a crucial role in determining which derivational strategy is employed in a given language, as island effects are expected to arise from dependencies created by movement but not base-generation. The body of cross-linguistic research on resumption has shown that the situation is more complicated once other diagnostics are taken into account and that languages can exhibit mixed resumption profiles. In this paper, we discuss the resumption in Akan, a Kwa language spoken in Ghana, and illustrate that, despite their general insensitivity to islands, resumptive dependencies also show many classic hallmarks of movement. We situate these findings in the broader context of a general understanding of resumption cross-linguistically and discuss how the conflicting movement diagnostics might be resolved.

1 Introduction

Since their discovery by Ross (1967), syntactic islands have played a central role in research on long-distance dependencies in natural language. Islands are arguably the primary diagnostic used to argue that a particular dependency involves syntactic movement. While this is most often applied to filler-gap dependencies, as research on long-distance dependencies has taken data from a wider range of languages into account, it became clear that many languages have productive strategies for forming long-distance dependencies that terminate in a pronoun rather than a gap (e.g. McCloskey 1979; Borer 1984; Koopman & Sportiche 1986). For this reason, diagnostics such as islandhood are crucial in determining the nature of a resumptive dependencies, as it is not *a priori* clear whether they involve movement or base-generation. While it initially appeared that there may be a neat dichotomy between resumptive dependencies created by movement and those created by base-generation and binding, subsequent research has shown that the cross-linguistic picture is, in fact, far more complicated and that the presence or absence of island effects does not always neatly align with other diagnostics for movement (see e.g. Salzmann 2017*b*). Reconciling conflicting diagnostics of this kind is the current major challenge facing analyses of resumptive dependencies.

In this paper, we will discuss how Akan, a Kwa language spoken in Ghana, fits into the empirical landscape of resumption. Building on previous work (Korsah & Murphy 2020), we argue that Akan has a rather unique profile among languages employing a resumptive strategy to form \bar{A} -dependencies. Despite the general absence of island effects with resumptive

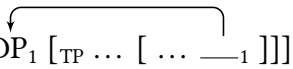
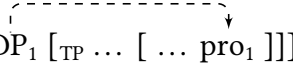
dependencies in Akan, we will show that there are numerous arguments that speak in favour of a movement derivation of resumption, including crossover effects, cyclicity effects, reconstruction effects, in addition to language-internal arguments against base-generation. In what follows, we aim to provide a detailed picture of the empirical situation in Akan and discuss its broader theoretical consequences for the theory of resumption and islandhood.

2 Islands and resumption in A-bar dependencies

Much of the early transformational generative grammar work on syntactic displacement focused on the properties of filler-gap dependencies and the restrictions imposed on them (e.g. Ross 1967). However, the idea that a long-distance dependency could also terminate in a pronoun was also discussed in Ross' seminal work. While gapped dependencies are subject to the variety of island constraints identified by Ross, such as the adjunct island in (1a), Ross (1967:433) observed that a resumptive pronoun appears to avoid an island violation (1b).

- (1) a. *King Kong is a movie which₁ you'll laugh yourself sick [CP if you see ___₁]
 b. King Kong is a movie which₁ you'll laugh yourself sick [CP if you see it₁]

A tempting conclusion to draw from (1) would be that island violations diagnose a movement derivation in the syntax. This would imply that the filler-gap dependency in (1a) involves movement, while the resumptive dependency in (1b) does not. Consequently, there would therefore be two different grammatical strategies available for forming an \bar{A} -dependency such as the one found in relative clauses: genuine syntactic movement versus base-generation and binding of a pronoun, as schematized in (2).

- (2) a.  [CP DP₁ [TP ... [... ___₁]]] (Movement)
 b.  [CP DP₁ [TP ... [... pro₁]]] (Base generation and binding)

Subsequent work on the kind of resumption Ross identified for English has concluded that resumption in English does not represent a genuine grammatical option in the language, but instead is a case of 'intrusive resumption', e.g. an extra-grammatical repair strategy used to facilitate processing (Sells 1984; Shlonsky 1992; Beltrama & Xiang 2016; however see Kroch 1981; Ackerman et al. 2018). Cross-linguistic research, however, has uncovered that some languages do indeed have genuine grammatical strategies for forming resumptive dependencies. In fact, this option sometimes co-exists alongside the more familiar gap-formation strategy.

One such language is Irish. McCloskey (1979; 2002) has shown that \bar{A} -constructions in Irish, such as those found in relative clauses, may terminate either in a gap (3) or a resumptive (4). Importantly, only gaps are island-insensitive, therefore conforming to the aforementioned hypothesis that gapped dependencies involve movement, while resumptive dependencies involve base-generation (also see Borer 1984).

- (3) *Gaps are island-sensitive in Irish* (McCloskey 1979:32)
 *bean₁ nachN bhfuil fhios agam [CP an bpósfadh duine ar bith ___₁]
 woman NEG.COMP I know INT.PRT would marry person any
 'a woman who I don't know if anyone would marry'
 (4) *Resumptives are not island-sensitive in Irish* (McCloskey 1979:33)
 bean₁ nachN bhfuil fhios agam [CP an bpósfadh duine ar bith í₁]
 woman NEG.COMP I know INT.PRT would marry person any her
 'a woman who I don't know if anyone would marry her'

This dichotomy is further supported by the observation that other diagnostics for movement show the same distinction. So-called ‘weak crossover’ (WCO) effects, in which a pronoun bound by the moved phrase is ‘crossed’ by a dependency (i.e. is not c-commanded by the tail of the dependency), are often taken to be a hallmark of (\bar{A} -)movement (see section 3.4 for further discussion). In Irish, only gapped \bar{A} -constructions show WCO effects (5).

(5) *No WCO with resumptives in Irish* (McCloskey 2011:110)

- a. * $[_{DP} \text{ fear}_1 [_{CP} \text{ a d'fhág } [a_1 \text{ bhean}] \text{ —}_1]]$
 man a^L left his wife
 ‘the man who his wife left’
- b. $[_{DP} \text{ fear}_1 [_{CP} \text{ a d'fhág } [a_1 \text{ bhean}] \text{ é}_1]]$
 man a^N left his wife him
 ‘the man who his wife left him’

This consistent patterning together of islands with other movement diagnostics has been observed in other languages, too. In Vata, a Kru language spoken in Côte d’Ivoire, Koopman & Sportiche (1986) have shown that resumptive dependencies show both sensitivity to islands (6) and weak crossover effects (7).

(6) *Resumptives are island-sensitive in Vata* (Koopman & Sportiche 1986:370)

- *Ál₁ ñ nylá nyní $[_{CP} \text{ nā } \dot{\alpha}_1 \text{ dí mé }] \text{ lá?}$
 who you wonder COMP 3SG cut it WH
 ‘Who do you wonder whether he cut it?’

(7) *WCO with resumptives in Vata* (Koopman & Sportiche 1982:143)

- *Ál₁ [$\dot{\alpha}_1$ nó] gùgù $[_{CP} \text{ nā } \dot{\alpha}_1 \text{ mlì }] \text{ lá?}$
 who his mother think COMP 3SG left WH
 ‘Who did his mother think left?’

Given this state of affairs, one might also expect to find other putative movement diagnostics patterning together with island sensitivity. Various kinds of reconstruction effects may be taken as evidence for a movement derivation since, taken at face value, a movement-generated resumptive implies that the resumed phrase is in some sense syntactically represented at the tail of the dependency, while a basic base-generation and binding strategy may not.¹

With this in mind, we find some supporting evidence of this correlation from *deto*-relative clauses in Bulgarian. As Krapova (2010) shows, movement gaps are not possible inside Complex NP islands, while overt resumptive pronouns are not (8).

(8) *Resumptives are not island-sensitive in Bulgarian deto-relatives* (Krapova 2010:1250)

- Tova e $[_{DP} \text{ edin film}_1 [_{CP} \text{ deto } [_{DP} \text{ vsicki } [_{CP} \text{ koito sa } \mathbf{go}_1/*\text{ —}_1 \text{ gledali }]]] \text{ mnogo}$
 this is a film that all who.3PL are it.CL.ACC seen a.lot
 go xaresvat]]
 it.CL.ACC like.3PL
 ‘This is a film that all those who have seen it like it a lot.’

In addition to also not exhibiting WCO effects (Krapova 2010:1250, fn.16), resumptive dependencies in Bulgarian *deto*-relatives also fail to exhibit another apparent effect of movement, namely allowing for reconstruction to the position of the resumptive. Since the head of the relative clause contains a pronoun bound by a quantifier inside the relative clause, it would have to be reconstruct to its base position for purposes of interpretation. As (9) shows, this is possible for a gap, but not a resumptive pronoun.

¹However, we will see that in reality this is not necessarily the case, see section 3.3.

- (9) *No reconstruction to position of resumptive* (Krapova 2010:1247–1248)
 [DP [snimkata na deteto si₂]₁] [CP deto vsjaka majka₂ —₁ / *ja₁
 picture.the of child.the her.REFL that every mother her.CL.ACC
 nosi v portmoneto si]]
 carry.3SG in purse.the her.REFL
 ‘the picture of her₁ child that every mother₁ carries (it) in her purse’

Given this, we would also expect to find reconstruction effects with island-sensitive resumption, however. There are actually surprisingly few clear-cut cases of this. Perhaps the only potential example we are aware of comes from Welsh where both resumptive and gapped dependencies into relative clauses are ungrammatical, indicating some sensitivity to strong islands:²

- (10) *Resumption in Welsh is island-sensitive* (Borsley et al. 2007:148)
 *Dyma ’r ffenest₁ darais i [DP ’r bachgen [CP dorrodd hi₁ ddoe]]
 that.is the window hit.PST.1SG I the boy break.PST.3SG it yesterday
 ‘That’s the window that I hit the boy who broke (it) yesterday.’

According to Rouveret (2008), Welsh allows for reconstruction for variable binding to the position of the resumptive, as in (11). Taken at face value, this would seem to imply that a different kind of derivation is involved than with resumption in Bulgarian *deto*-relatives, for example.³

- (11) *Reconstruction to position of resumptive in Welsh* (Rouveret 2008:182)
 Mae gan Siôn [farn ar ei₁ lyfr]₂ y mae pob awdur₁ yn ei₂ pharchu
 is with Siôn opinion about his book C is each author PROG it respect
 ‘Siôn has an opinion about his book that each author respects.’

So far, a reasonably neat picture emerges. On the one hand, we have languages that have what we might call a ‘Type I’ resumption profile, where island-insensitivity correlates with a lack of other diagnostics for movement such as crossover effects or reconstruction (e.g. Irish and Bulgarian). In addition to these, we have a ‘Type II’ profile where island sensitivity implies evidence for movement. Vata, and perhaps Welsh, are examples of this kind of language. Both of these can be seen in the table below.

- (12) *Types of resumption profiles (preliminary)*

	<i>Island-sensitive?</i>	<i>Evidence for movement?</i>
Type I (e.g. Irish, Bulgarian)	✗	✗
Type II (e.g. Vata, Welsh?)	✓	✓
Type III?	✓	✗
Type IV?	✗	✓

At this point, one might wonder if there are languages with ‘mismatched’ resumption pro-

²The situation surrounding islandhood in Welsh is complicated, to say the least. To varying degrees, both movement and gaps seem to be possible inside *wh*-islands and complement clauses to noun (Tallerman 1983; Borsley et al. 2007; Borsley 2013), while neither is possible in relative clauses. Why exactly only relative clauses should count as islands is unclear.

³Given the dichotomy we are considering at the moment, this would imply movement. However, this is actually not what Rouveret (2008) propose for Welsh. Instead, he favours an Agree-based approach similar to what Adger & Ramchand (2005) suggest for Scottish Gaelic, discussed in detail below. How exactly an Agree-based account derives the class of constructions that constitute islands has, to the best of our knowledge, still not been worked out.

files, e.g. a ‘Type III’ language in which we find island-sensitivity but a lack of evidence for movement. Or perhaps, the reverse case in which there is evidence for movement in spite of a lack of island violations under resumption. Determining whether such profiles truly exist is a difficult and involved matter. For one thing, we will see that languages can show conflicting results for the various diagnostics for movement (potentially casting some doubt on their validity as such). Nevertheless, a detailed comparison of the varying properties of resumptive dependencies does reveal some interesting mixed cases.

A potential Type III language could be Scottish Gaelic. Following the description in Adger & Ramchand (2005), \bar{A} -dependencies in the language are island-sensitive:

- (13) *\bar{A} -dependencies in Scottish Gaelic are island-sensitive* (Adger & Ramchand 2005:178)
 am fear₁ a phòg mi [_{DP} a’bhean [_{CP} a phòs *pro*₁]]
 the man C.REL kissed I the.woman C.REL married
 ‘the man who I kissed the woman who married’

The tail of the dependency in (13) is not occupied by an overt resumptive pronoun, from which one might want to conclude that there is movement rather than resumption here. However, Adger & Ramchand (2005:167–171) provide a number of empirical challenges for a movement account, e.g. from non-identity effects, where the gap position fails to exhibit the kind of connectivity effects we would expect from movement. Examples of this include selectional mismatches between the ‘extractee’ and its base position, the lack of definiteness agreement on adpositions adjacent to \bar{A} -gaps and the absence of case connectivity effects with participles. In addition to this, Adger & Ramchand (2005) point out that we find a lack of reconstruction effects, for example for Principle C (14).

- (14) *No reconstruction for Principle C in Scottish Gaelic* (Adger & Ramchand 2005:171)
 [Dè an dealbh de dh’Iain₁]₂ a cheannaich e₁ *pro*₂ an de
 what the picture of Iain C.REL bought he yesterday
 ‘Which picture of Iain did he buy yesterday?’

While Adger & Ramchand (2005) reject a movement-based account in favour of Agree, it still shows some of the hallmarks of a Type III profile. Ultimately, though, this is perhaps not the clearest example of a potential Type III resumption profile, as it still requires the assumption of null resumptive pronoun. Furthermore, we do find morphological cyclicity effects that are normally assumed to be typical of movement. We return to this issue in section 4.

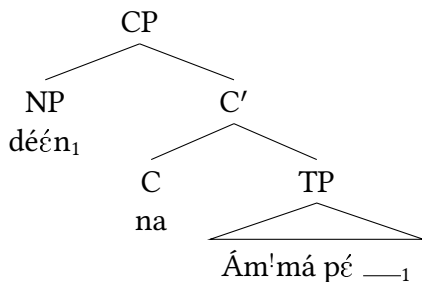
Finally, we may ask whether this is a different kind of mismatched profile, i.e. a Type IV language. This would be a language with island-insensitive resumption but still shows other kinds of evidence of movement. As we will see, despite the fact that the empirical picture is generally somewhat murky and incomplete, we believe that the resumption profile of Akan currently makes the strongest case for a Type IV language. While nominal resumption is typically impervious to islands, it nevertheless shows other hallmarks of movement. This breaks the neat dichotomy that was originally hinted at by languages such as Irish and Vata.

In the remainder of this paper, we will lay out the empirical landscape of resumption in Akan and, building on Korsah & Murphy (2020), attempt to establish the full resumption profile of Akan. We will argue that there are numerous reasons to suspect that there are \bar{A} -dependencies in Akan that are both island-sensitive and show properties of movement. Based on the broader cross-linguistic landscape, we will present the challenges that this poses for theories of resumption and discuss some of the ways in which they could be addressed.

3 Resumption and \bar{A} -dependencies in Akan

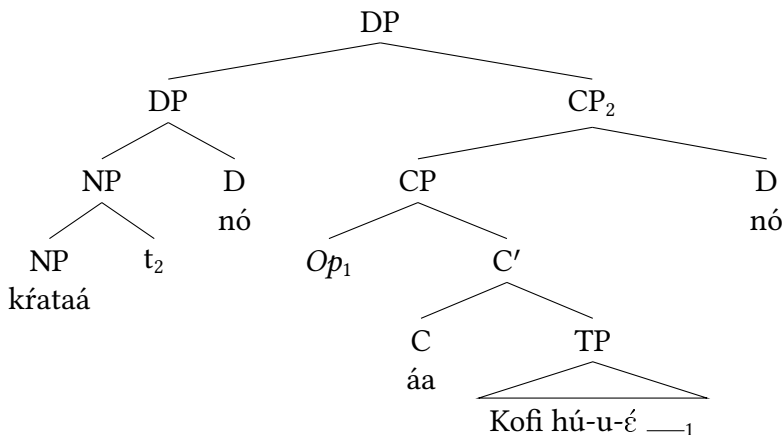
Akan has two main kinds of \bar{A} -constructions that will be relevant for the following discussion. The first is the so-called *na*-focus construction which is used for *ex situ* wh-questions, such as (15), in addition to focalization of some argument or adjunct in a declarative clause.⁴ The structure we assume for the *na*-focus construction is given below.

- (15) *The na-focus construction in Akan*
 Déén₁ na Ám'má pé —₁ ?
 what FOC Ama like
 'What does Ama like?'



The second major construction of interest to us is the relative clause. As can be seen in (16), relative clauses in Akan have the initial relative marker *áa* and also contain the so-called 'clausal determiner' (CD). As the structure below illustrates, we assume that the CD is adjoined to the relative CP that is extraposed within the DP.⁵

- (16) *Relative clauses in Akan*
 [DP Křataá nó₁ [CP áa Kofi hú-u-é —₁ nó]] da [PP pónó nó só]
 paper DEF REL K. see-PST-YE CD lie table the on
 'The paper that Kofi saw is on the table.'



Going back to the earliest work on wh-movement and focus in Akan (e.g. Schachter 1973;

⁴Note that Akan is optionally wh-in-situ. The focus particle *na* does not surface in the *in situ* variant of (15). Since these constructions will be uninformative for present purposes, we will only discuss *ex situ* wh-questions and focus movement constructions.

⁵It is important to note that the CD is also possible, albeit optionally, in the *na*-focus construction. Here, the attachment height of the CD is less clear. It is possible that it attaches lower here. Previous literature has claimed that the CD is used to mark an event as familiar (e.g. Boadi 1974), but Bombi et al. (2019) show that this is not the case for the CD in a *na*-focus construction (what they call 'cleft-*nó*'). For relative clauses, they assume a different structure to the one in (16) where the CD is, in fact, the determiner modifying the head noun, but it is unclear to us how one can accommodate the additional determiner on this analysis.

Boadi 1974; Saah 1988, 1994), it was noticed that \bar{A} -dependencies must terminate in a resumptive pronoun if the displaced phrase is animate. Taking the ditransitive sentence in (17a) as our baseline, we observe that wh-movement of animate indirect object leads to an obligatory resumptive pronoun *nó* in the base position (17b).⁶ If we instead move the inanimate direct object, then there is no obligatory pronoun in this position (17c).

- (17) a. Yaw ma-a Saka síká.
 Yaw give-PST Saka money
 ‘Yaw gave Saka money.’
 b. Hwáń₁ na Yaw má-a { *—₁ / no₁ } síka?
 Who FOC Yaw give-PST 3SG money
 ‘Who did Yaw give money to?’
 c. Dééń₁ na Yaw má-a Saka { —₁ / *no₁ }?
 what FOC Yaw give-PST Saka 3SG
 ‘What did Yaw give to Saka?’

At first glance, this may suggest that Akan has two distinct ways of forming \bar{A} -dependencies, a gap strategy and resumptive strategy. This initial impression is misleading, however. As shown in Korsah (2017), the gaps we find with extraction of inanimates are best viewed as the result of a more general rule of ‘pro drop’ that blocks the overt realization of inanimate pronouns in object position. The reason for thinking is that there are at least three contexts in which inanimate pronouns are obligatorily pronounced. These are (i) clause-final adverbs (Saah 1994), (ii) change-of-state verbs (Boadi 1971; Osam 1996), and (iii) secondary predicates (Korsah 2017). As each of the examples in (18) through (20) show, gaps and resumptives alternate in positions associated with even an animate extractee.

(18) *Inanimate resumption with clause final adverb*

- a. Aduane nó₁ na Kofí pé (*no₁)
 food DEF FOC Kofi like 3SG
 ‘It’s the food that Kofi likes.’
 b. Aduane nó₁ na Kofí pé *(no₁) anɔpá
 food DEF FOC Kofi like 3SG morning
 ‘It’s the food that Kofi likes in the morning.’

(19) *Inanimate resumption with change-of-state verbs*

- a. Akonwa nó₁ na Kofí kǎ-a (*no₁).
 chair DEF FOC Kofi import-PST 3SG
 ‘It’s the chair that Kofi imported.’
 b. Akonwa nó₁ na Kofí bú-u *(no₁).
 chair DEF FOC Kofi break-PST 3SG
 ‘It’s the chair that Kofi broke.’

(20) *Inanimate resumption with secondary predication*

- a. Aduane nó₁ na Kofí pé [_{SC} *(no₁) hyehyééhyé]
 food DEF FOC Kofi like 3SG very.hot
 ‘It’s the food that Kofi likes very hot.’
 b. [_{DP} Aduane nó₁ [_{CP} áa Kofí pé *(no₁) hyehyééhyé nó]] nie
 food DEF REL Kofi like 3SG very.hot CD this
 ‘This is the food that Kofi likes very hot.’

⁶Note that the resumptive pronoun has the same form as anaphoric pronouns (following McCloskey’s *Generalization*; McCloskey 1990).

Given these observations, Korsah (2017) and Korsah & Murphy (2020) conclude that both *na*-focus constructions and relative clauses always trigger resumption, which may subsequently undergo pro drop if the extractee is inanimate. The three contexts above are exceptions to the inanimate pro drop rule. What exactly singles out these contexts as exempt from the pro drop is an interesting question that need not immediately concern us here (see Korsah 2017 for a possible analysis involving object shift).

The final thing to mention about resumption in Akan pertains to the nature of subject vs. object resumption. As we have seen above, object extraction leads to a resumptive pronoun *nó* in the base position of the object. Subject pronouns, both resumptive and anaphoric, appear as a bound morpheme on the verb. This is shown in (21) for both anaphoric pronouns (21a) and resumptive pronouns (21b).

- (21) a. ɔ-dɔ Saka?
 3SG.SBJ-love Saka
 ‘He/she loves Saka?’
- b. $\text{Hwáń}_1 \text{ na } \text{ɔ}_1\text{-dɔ}$ Saka?
 who FOC 3SG.SBJ-love Saka
 ‘Who loves Saka?’

Syntactically, we assume that this marking actually involves extraction with an obligatorily null resumptive in subject position. We treat the ‘resumptive’ morpheme as an agreement marker on the verb coreferencing the features of the null resumptive pronoun (22).

- (22) $\text{Hwáń}_1 \text{ na } \text{pro}_1 \text{ } \text{ɔ-dɔ}$ Saka?
 who FOC 3SG.SBJ-love Saka
 ‘Who loves Saka?’

Some supporting evidence for this comes the observation in Korsah (2017) that subject resumptives, unlike object resumptives, undergo an optional alternative with the inanimate pronoun ϵ -. This can be understood in terms of (optional) anti-agreement, which is already a well-known reflex of subject extraction (see e.g. Ouhalla 1993; Schneider-Zioga 2007; Henderson 2013; Baier 2018).

- (23) *Anti-agreement with local subject extraction* (Korsah 2017:118,121)
- a. $\text{Kofi}_1 \text{ na } \epsilon/\text{ɔ}_1\text{-káń-n}$ křataá nó
 Kofi FOC 3-/3SG.SBJ-read-PST book DEF
 ‘It is Kofi who read the book.’
- b. $[\text{DP } \text{Abɔfrá } \text{nó}_1 \text{ } [\text{CP } \text{aá } \epsilon/\text{ɔ}_1\text{-káń-n } \text{křataá nó }]]$ nie
 child DEF REL 3-/3SG.SBJ-read-PST book DEF this
 ‘This is the child who read the book.’

The view that this is anti-agreement is supported by the fact that the unagreeing ϵ - marker is not possible under long-distance extraction (Korsah 2017:120). This is entirely parallel to what we find with anti-agreement in Berber, for example (Ouhalla 1993).

3.1 Island effects

With these preliminary observations about \bar{A} -constructions and resumptive pronouns in place, we can now turn to island effects in Akan. As has been established in much previous literature, island effects are absent with extraction of both animate and inanimate noun phrases (Saah 1994; Saah & Goodluck 1995; Goodluck et al. 1995). This is irrespective of whether the dependency terminates in a resumptive or a gap. This is illustrated below for four kinds of syntactic islands, namely Complex NP islands, *wh*-islands, adjunct islands and sentential subject islands, for both resumptive dependencies (24) and gapped dependencies (25), respectively.

- (24) *Island insensitivity with resumptives* (Saah 1994:172; Korsah 2017:117)
- a. Hwáń₁ na wo-hú-u [DP onípá ko [CP áa ɔ-bó-ɔ **no**₁ no]] ?
 who FOC 2SG-see-PST person DEF REL 3SG-hit-PST 3SG CD
 ‘Who did you see the person who hit him?’ (CNP island)
- b. Ám'má₁ na Kofi bisá-a [CP sé hwán na ε-dó **nó**₁ nó]
 Amma FOC Kofi ask-PST that who FOC 3SG-love 3SG CD
 ‘It is Ama who Kofi asked who loves her.’ (wh-island)
- c. Ám'má₁ na Yaw ré-sú [CP ésánesé Kofi dó **nó**₁ nó]
 Ama FOC Yaw PROG-cry because Kofi love 3SG CD
 ‘It is Ama that Yaw is crying because Kofi loves her.’ (adjunct island)
- d. Hwáń₁ na [CP sé Kofi dó **nó**₁ nó] á-ma abusuá mmienú nó
 Who FOC that K love 3SG CD PERF-give family two DEF
 á-bóm.
 PERF-reconcile
 ‘Who is such that [that Kofi loves her] has made the two families reconcile.’
 (sentential subject)
- (25) *Island insensitivity with gaps* (Saah 1994:172,197)
- a. Déén na wo-ním [DP onipa ko [CP áa ɔ-tó-ɔ-é ___₁ nó]] ?
 who FOC 2SG-know person DEF REL 3SG-buy-PST-YE CD
 ‘What do you know the person that bought?’ (CNP island)
- b. Deen₁ na Mary bisa-a [CP sé hwán na ɔ-ye-e ___₁ nó] ?
 what FOC Mary ask-PST that who FOC 3SG-make-PST CD
 ‘What did Mary ask who made?’ (wh-island)
- c. Siká₁ na Yaw ré-sú [CP ésánesé Kofi dó ___₁ nó]
 money FOC Yaw PROG-cry because Kofi love CD
 ‘It is money that Yaw is crying because Kofi loves.’ (adjunct island)
- d. Déén₁ na [CP sé Kofi dó ___₁ nó] á-ma abusuá mmienú nó
 what FOC that K love CD PERF-give family two DEF
 á-bóm
 PERF-reconcile
 ‘What is such that [that Kofi loves] has made the two families reconcile.’
 (sentential subject)

Given the fact that there appears to be no obvious difference in acceptability between displacement associated with a gap or a resumptive with regard to islands, Saah (1994) proposed that both grammatical strategies are instances of base generation, with binding of a null *pro* in the case of a gap (cf. the Scottish Gaelic example in (13)).

The situation regarding island effects is more complicated, however. Korsah & Murphy (2020) point out that extraction of certain kinds of categories does appear to show island sensitivity. First, consider the fact that PPs can undergo long extraction out of an embedded CP:

- (26) *Long-distance PP extraction is possible*
 [PP Akonwá nó mú] na Ama ním [CP se Kofi dá ____{PP}]
 chair DEF in FOC Ama know that Kofi lie
 ‘Ama knows that Kofi lies IN THE CHAIR.’

When this CP forms part of an island, e.g. a Complex NP island (27b) or a wh-island (27e), then extraction is impossible:

- (27) *PP extraction is island-sensitive*

- a. Amma nim [DP neá ntí [CP áa Kofi dá [PP akonwá nó mú]]]
 Ama know thing because REL Kofi lie chair DEF in
 ‘Ama knows the reason why Kofi lies in the chair.’
- b. *[PP Akonwá nó mú] na Ama ním [DP neá ntí [CP áa Kofi dá ___PP]]
 chair DEF in FOC Ama know thing because REL Kofi lie
 ‘Ama knows the reason why Kofi lies IN THE CHAIR.’ (Complex NP island)
- c. Amma bisá-a [CP sé bré bén na Kofi dá [PP akonwá nó mú]]
 Ama ask-PST that time Q FOC Kofi lie chair DEF in
 ‘Ama asked when Kofi lies in the chair.’
- d. *[PP Akonwá nó mú] na A'ma bisá-a [CP sé bré bén na Kofi dá ___PP]
 chair DEF in FOC Ama ask-PST that time Q FOC Kofi lie
 ‘Ama asked when Kofi lies IN THE CHAIR.’ (wh-island)

The same pattern is also found for VP movement, as Hein (2017) has shown. Hein points out that VP extraction may proceed long distance:

- (28) Long-distance VP extraction is possible (Hein 2017:9)
 [VP dán sí-é] na Ám'má ká-a [CP sé Kofi á-yó ___VP]
 house build-NMLZ FOC Ama say-PST that Kofi PERF-do
 ‘Ama said that Kofi BUILT A HOUSE (not bought a car)’

Nevertheless, it shows sensitivity to the same kinds of islands as PP movement does (29).

- (29) VP fronting is island-sensitive (Hein 2017:10)
- a.?[VP dán sí-é] na mé-ń-té-e [DP atétésém bíará [CP sé Kofi
 house build-NMLZ FOC 1SG-NEG-hear-PST rumour.PL any that Kofi
 á-yó ___VP]]
 PRF-do
 ‘I didn’t hear any rumours that Kofi has BUILT A HOUSE.’ (Complex NP island)
- b.?[VP dán sí-é] na Ám'má bisá-a [CP sé dabén na Kofi yó-ɔ-é
 house build-NMLZ FOC Ama ask-PST that when FOC Kofi do-PST-YE
 ___VP]
 ‘Ama asked when Kofi BUILT A HOUSE.’ (wh-island)

The conclusion that Korsah & Murphy (2020) draw from this is that sensitivity to islands is linked to the possibility of (covert) resumption. Neither PPs nor VPs allow for resumptive pronouns.⁷ This can be seen for PP extraction in (30b). Even though the tail of the \bar{A} -dependency is in a context that should block pro drop (a clause-final adverb), no resumptive is possible here. The impossibility of a resumptive (even one that has undergone pro drop) is directly linked to the re-emergence of island effects according to Korsah & Murphy (2020).

- (30) Extracted PPs lack resumptives

- a. Kofi da [PP akonwá nó mú]
 Kofi lie chair DEF in
 ‘Kofi is lying in the chair.’
- b. [PP Akonwá nó mú] na Kofi dá { ___PP / *hɔ } anɔpá.
 chair DEF in FOC Kofi lie there morning
 ‘Kofi lies IN THE CHAIR in the morning.’

⁷Kandybowicz (2015) describes the aspectual particle -yɛ as a verbal resumptive, though the actual analysis involves insertion of a form to avoid a prosodically vacuous AsP domain (rather than genuine realization of a movement trace). The insertion of -yɔ does not avoid island violations (see Hein 2017).

An important complication to this rather neat picture was raised by Hein & Georgi (2021). They note that non-referential NPs of various kinds do not allow for overt resumptives, similar to PPs and VPs. They provide data showing that idiom chunks, predicate nominals and non-specific indefinites do not leave resumptives when extracted, even in contexts where pro drop is blocked.

The example that Hein & Georgi (2021) provide for a predicate nominal is given in (31). Despite the presence of a clause-final adverb in B's answer, no overt resumptive is possible.

(31) Context: Kofi is about to graduate this year. Kwame claims:

A: Kofi bε-yε dɔkɔta 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: Tíkyani na Kofi bé-yé {—₁ / *no₁ } afe yí
 teacher FOC Kofi FUT-be 3SG.OBJ year this
 'It's a teacher that Kofi will become this year.' (Hein & Georgi 2021)

The example in (32) shows the same effect for extraction of a non-specific indefinite.

(32) 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?'

However you didn't want to bother the headmaster with this so you say:

B: Daabi, ɔkyerɛkyerɛni₁ na me-be-bisa {—₁ / ??no₁ } kane
 no, teacher FOC 1SG-FUT-ask 3SG.OBJ first
 'No, I will ask a (RANDOM) TEACHER first.' (one of many teachers around)
 (Hein & Georgi 2021)

Due to the impossibility of an overt resumptive here, one would expect NP extraction to involve a genuine gap formation strategy and therefore show sensitivity to islands. As Hein & Georgi (2021) show, however, extraction of such NPs still leads to island violations:

- (33) a. Tíkyá₁ na m-á-té [DP atésém nó [CP sé Kofi bé-yé {—₁ / *nó₁ }
 teacher FOC 1SG-PERF-hear rumour DEF that Kofi FUT-be 3SG.OBJ
 afe yí]]
 year this
 'It is a teacher that I heard the rumour that Kofi will become this year.'
- b. Npípa na wo-té-e [DP atésém nó [CP sé Kofi sùró {—₁ / *nó₁ /
 person FOC 2SG.SBJ-hear-PST rumour DEF that Kofi fear 3SG.OBJ
 *wón₁ } páa]]
 3SG.PL really
 'It's people that I've heard the rumour that Kofi really fears.'
 (Hein & Georgi 2021)

This seems to go against the generalization in Korsah & Murphy (2020) that island-sensitivity correlates with the absence of an overt resumptive pronoun. We return to this issue in section 4.2.1. With the discussion of island-sensitivity in Akan in place, we now turn to other potential diagnostics for movement.

3.2 Cyclicity effects

The first of the potential diagnostics for a movement approach to resumption comes from (successive-)cyclicity effects. Since Chomsky (1973), it has been assumed that movement-based \bar{A} -dependencies are subject to locality constraints. This means that long-distance dependencies must be broken up into a series of smaller movement chains. In their most recent instantiation, these locality constraints take the form of phases. If we follow Chomsky (2000, 2001), both vP and CP constitute phases and therefore require a long-distance dependency to make an intermediate ‘stop-over’ at each of these projections, as in (34).

- (34) *Successive-cyclic movement*

$$[_{CP} \text{Who do you } [_{vP} \text{---} \text{ think } [_{CP} \text{---} \text{ that everyone } [_{vP} \text{---} [_{VP} \text{likes ---}]]]]] ?$$

It has been shown that there are various different kinds of evidence supporting this derivation (see e.g. Georgi 2014, van Urk 2020), with perhaps the most compelling evidence coming from languages which show dedicated morphological reflexes of movement taking place within that clause (see e.g. Lahne 2008; Georgi 2014, 2017). These reflexes can be on C (see e.g. McCloskey 2002; Georgi 2017) or they can be on the verb, i.e. in v (e.g. van Urk & Richards 2015). Presumably, while movement dependencies are forced to comprise a series of smaller connected steps, morphological cyclicity effects could be taken to diagnose movement over resumption, since variable binding is typically not subject to locality constraints.⁸

A potentially revealing example of a morphological cyclicity effect comes from Defaka. As Bennett et al. (2012) argue, the suffix *-ke* in Defaka surfaces on verbs in clauses in which there has been overt \bar{A} -movement (35b). Importantly, when something is extracted from an embedded clause, as in (35c), the *-ke* morpheme is found on both the embedded and the matrix verb. It therefore seems to mark the path of movement, assuming that movement applies cyclically with an intermediate stopover in the embedded clause.

- (35) *Morphological reflex of movement in Defaka* (Bennett et al. 2012:296–297)

- a. Amanya ómgbinya sóno á ama-ma kí'á 'té ?
 Amaya shirt buy her give-NFUT market at
 ‘Amaya bought a shirt for her at the market.’
- b. Tári₁ ndo Amanya ómgbinya sóno —₁ ama-**ke** kí'á 'té ?
 who FOC Amaya shirt buy give-KE market at
 ‘Who did Amaya buy a shirt for at the market?’
- c. Ándu₁ ndo Bomá faa-**ke** [CP iní —₁ été-**ke**]
 canoe FOC Boma say-KE they have-KE
 ‘It’s a canoe that Boma said they have.’

Korsah & Murphy (2020) argue that the Asante Twi dialect of Akan shows a similar cyclicity in the realm of tone. Asante Twi has a process of high-tone overwriting on verbs in certain \bar{A} -constructions. This process was originally noticed by Schachter & Fromkin (1968) and has subsequently been corroborated in further literature (e.g. Marfo 2005; Fiedler & Schwarz 2005; Genzel 2013). As the following example shows, the underlyingly low verb $w\text{ɔ}$ (‘be’) in (36a) receives a high tone in the corresponding focus construction in (36b).

⁸This assumption is far from trivial, however. Several authors have argued that, if implemented by Agree, base-generated resumption involving binding may also be subject to locality constraints (e.g. Adger & Ramchand 2005; Rouveret 2008; Pan 2016) and therefore potentially also successive-cyclic. We discuss this possible analysis in more detail in section 4.2.2.

- (36) a. Kofi wɔ Ęnyirési
 Kofi be England
 ‘Kofi is in England.’
 b. Kofi₁ na ɔ₁-wɔ Ęnyirési
 Kofi FOC 3SG.SBJ-be England
 ‘It is Kofi who is in England.’ (Schachter & Fromkin 1968:209)

Korsah & Murphy (2020) point out that tonal overwriting has the signature of a reflex of successive-cyclicity. In particular, it applies to all verbs that are along the path of movement. Importantly, this effect is also found with an overt resumptive pronoun. This is the case for both focus constructions (37) and relative clauses (37).

(37) *Overwriting affects all verbs in a long-distance dependency* (Korsah & Murphy 2020)

- a. [CP Kwame **nim** [CP sé Ám'má **hu-u** Efua]]
 Kwame knows that Ama see-PST Efua
 ‘Kwame knows that Ama saw Efua.’
 b. [CP Hwáń₁ na Kwame **ním** [CP sé Ám'má **hú-u** no₁]]
 who FOC Kwame knows that Ama see-PST 3SG
 ‘Who does Kwame know that Ama saw?’

(38) *Long distance relativization shows movement reflex*

- a. Me-nim [CP sé óbíará á-te [CP sé Kofi á-ka [CP sé
 1sg-know that everybody PERF-hear that Kofi PERF-say that
 ɔ-dɔ ɔbáá nó]]]
 3SG.SBJ-love woman DEF.
 ‘I know that everybody has heard that Kofi has said that he loves the woman.’
 b. Me-hu-u [DP ɔbáá nó [CP Op₁ áa óbíará á-té [CP sé Kofi
 1SG-see-PST woman DEF REL everybody hear-PST that Kofi
 á-ká [CP sé ɔ-dɔ nó₁ nó]]]]
 PERF-say that 3SG.SBJ-FUT-love 3SG.OBJ CD
 ‘I saw the woman whom everybody has heard that Kofi has said that he loves her.’

While the unbounded nature of the process may seem to provide a convincing argument for movement, it is important to establish that movement reflexes are also found inside islands. This is because it is possible that could be a movement dependency up to the edge of the island boundary with a non-movement dependency reaching into the island itself (see e.g. van Urk 2017 on resumptive dependencies into islands in Dinka). Indeed, we do still find movement reflexes inside islands, as shown in (39).

(39) *Reflex of successive-cyclicity with extraction from island*

- a. Me-hu-u [DP onipa ko [CP áa ɔ-bɔ-ɔ Kofi nó]]
 1SG-see-PST person DEF REL 3SG-hit-PST 3SG CD
 ‘I saw the person who hit Kofi’
 b. Hwáń₁ na wo-**hú-u** [DP onípá ko [CP áa ɔ-bɔ-ɔ nó₁ nó]] ?
 who FOC 2SG-see-PST person DEF REL 3SG-hit-PST 3SG CD
 ‘Who did you see the person who hit?’ (CNP island)
 c. Yaw **re-su** [CP ésánesé Kofi dɔ Ám'má]
 Yaw PROG-cry because Kofi love 3SG
 ‘It is Ama that Yaw is crying because Kofi loves her.’

- d. $\overbrace{\text{Ám}'\text{má}_1 \text{ na } \text{Yaw } \text{ré-sú} \quad [\text{CP } \text{ésánesé } \text{Kofi } \text{dó} \quad \text{nó}_1] \text{ nó}}^{\text{CP}}$
 Ama FOC Yaw PROG-cry because Kofi love 3SG CD
 ‘It is Ama that Yaw is crying because Kofi loves her.’ (adjunct island)

This supports the idea that whatever the source of this cyclicity effect is, it does not distinguish between dependencies into islands and non-islands. If it is the result of successive-cyclic movement via *vP*, as Korsah & Murphy (2020) argue, then we must conclude that such movement is possible out of an island (see section 4 for further discussion).

3.3 Reconstruction effects

Now, let us turn to reconstruction effects. Recall from the examples discussed in section 2 that there are island-insensitive languages like Bulgarian which allow the c-command requirement for variable binding to be satisfied by a moved element containing a bound variable only if the dependency terminates in a gap rather than a pronoun, as in (40).

- (40) *No reconstruction to position of resumptive* (Krapova 2010:1247–1248)
 $[\text{DP } [\text{snimkata } \text{na } \text{deteto } \text{si}_2]_1 \quad [\text{CP } \text{deto } \text{vsjaka } \text{majka}_2 \text{ —}_1 / *j\mathbf{a}_1$
 picture.the of child.the her.REFL that every mother her.CL.ACC
 $\text{nosi } \text{v } \text{portmoneto } \text{si} \quad]]$
 carry.3SG in purse.the her.REFL
 ‘the picture of her₁ child that every mother₁ carries (it) in her purse’

On the other hand, there are languages such as Lebanese Arabic, as discussed by Aoun & Benmamoun (1998), which allow reconstruction for variable binding at the position of an overt resumptive pronoun. In (41a), the extracted phrase containing a bound pronoun may be satisfied by reconstruction to its base position, i.e. interpreting the extracted phrase as if it occupied that position. As (41b) indicates, the surface position of the resumptive pronoun must be c-commanded by the binder in order for the sentence to be grammatical, further supporting the idea that there is indeed reconstruction to this position.

- (41) *Reconstruction to resumptive in Lebanese Arabic* (Aoun & Benmamoun 1998:581)
 a. $[\text{M}\{\text{all}\text{əmt-}o_1\}_2 \text{ fakkarto } \text{ʔənn}o \text{ kəll } \text{walad}_1 \text{ ʔaʔee } \text{-ha}_2 \text{ hdiyye}$
 teacher.F-his thought.2SG that every boy gave.3s -her gift
 b. $*[\text{M}\{\text{all}\text{əmt-}o_1\}_2 \text{ fakkarto } \text{ʔənn}o \text{ ʔaʔee } \text{-ha}_2 \text{ kəll } \text{walad}_1 \text{ hdiyye}$
 teacher.F-his thought.2SG that gave.3s -her every boy gift
 ‘His teacher, you thought that every boy gave her a gift.’

In Akan, we see a similar effect. A moved phrase containing a bound variable reconstructs to the position of the pronoun in order to license variable binding, as can be seen in (42b).

- (42) *Reconstruction for variable binding in Akan*
 a. Abán bíará₁ dwéne $[\text{DP } \text{ne}_1\text{-mánfóó } \text{yíe-yó } \text{hó}] \text{ dáá}$
 government every think poss-people well-be self every day
 ‘Every₁ government thinks about the well-being of its₁ people every day.’
 b. $[\text{DP } \text{ne}_1\text{-mánfóó } \text{yíe-yó } \text{hó}]_2 \text{ na } \text{abán } \text{bíará}_1 \text{ dwéné } \text{no}_2 \text{ dáá}$
 poss-people well-be self FOC government every think 3SG.OBJ every day
 ‘It’s the well-being of its₁ people that every₁ government thinks about every day.’

When testing for reconstruction, it is important to control for various other factors. For example, Schneider-Zioga (2009) notes that reconstruction for variable binding in Kinande is possible for local extraction, but not for long-distance extraction. This leads her to propose that

long-distance extraction in Kinande is in fact not formed by movement (see section 4.2.2). In Akan, however, we also find reconstruction effects with long-distance movement (43), meaning that we do not have to be concerned about this particular complication.

(43) *Reconstruction across clause boundary*

[_{DP} Ne₁-máńfóó yíe-yó hó]₂ na Kofi níń [_{CP} sɛ abán bíará₁ dwéné
 POSS-people well-be self FOC Kofi know that government every think
no₂ dáá]
 3SG.OBJ every day
 ‘It’s the well-being of its₁ people that Kofi knows that every₁ government thinks about every day.’

Furthermore, Aoun et al. (2001) argue that, in Lebanese Arabic, there are actually two available strategies for resumption: base-generation and movement (or ‘true’ vs. ‘apparent’ resumption in their words). They argue that reconstruction effects are only found with resumptives generated by a movement derivation. This option is blocked, however, when the resumptive is located inside a strong island. In this context, the base-generation strategy must instead be used, leading to the lack of reconstruction into islands. Akan, however, does not share this property. As (44) illustrates, reconstruction for variable binding persist into islands.

(44) *Reconstruction for variable binding into an island*

[_{DP} Ne₁-máńfóó yíe-yó hó]₂ na m-á-té [_{DP} atésém bí [_{CP} sɛ
 3SG.POSS-people well-be self FOC 1SG-PERF-hear rumour INDEF that
 abán bíará₁ dwéné **no**₂ dáá]]
 government every think 3SG.OBJ every day
 ‘It’s the well-being of its people that I have heard a rumour that every government thinks about everyday.’

The preceding examples also show reconstruction to the position of a resumptive pronoun for the purposes of variable binding. We also find reconstruction effects for other kinds of binding. For example, the anaphor *hó* is subject to Principle A (Saah 1989). As (45a) shows, it must be bound by the closest c-commanding antecedent within its local clause. Under long-distance movement, the anaphor may only refer to the embedded antecedent, thereby indicating reconstruction (45b).⁹

(45) *Reconstruction for Principle A*

- a. Kofi_i dwene [_{CP} sɛ Ám'máj bɛ-pírá [_{DP} ne hó_{j/*i}]]
 Kofi think that Ama FUT-hurt 3SG.OBJ REFL
 ‘Kofi_i think that Ama_j will hurt herself_{j/*i}’
- b. [_{DP} Ne hó_{j/*i}]₁ na Kofi_i dwéné [_{CP} sɛ Ám'máj bɛ-pírá **no**₁ ɔkyena]
 POSS REFL FOC Kofi think that Ama FUT-hurt 3SG.OBJ tomorrow
 ‘It is herself_j that Kofi thinks that Ama_j will hurt tomorrow.’

Similarly, Akan shows sensitivity to Principle C effects in non-movement constructions, as (46a) shows. When a phrase containing an R-expression is extracted, we still find Principle C effects with respect to the position of the resumptive pronoun (46b).

(46) *Reconstruction for Principle C*

- a. *ɔ₁-pɛ [_{DP} Kofi₁ mfoníri yí]
 3SG-like Kofi picture this

⁹It is also worth highlighting that the matrix subject does not appear to be a possible binder for the moved anaphor, indicating that reconstruction to an intermediate landing site is not possible (Barss 1986).

- ‘He likes the picture of Kofi’
 b. *_{[DP Kofí₁ ífónírí yí]₂} na Ám'má níím _[CP se ɔ₁-pé no₂ paa]
 Kofi picture this FOC Ama think that 3SG-like 3SG really
 ‘It’s this picture of Kofi that Ama thinks he really likes’

In addition to this, we find evidence for reconstruction with idiom chunks, too. Akan has a class of idiomatic VP constructions that are known as *inherent complement verbs* (ICVs) in the literature (Essegbey 1999; Korsah 2016). For example, the VP *to ndwom* (‘throw song’) has the non-compositional interpretation ‘to sing’ (47a) (Kandybowicz 2015:266). This meaning is preserved when the complement of the ICV is focused and a resumptive pronoun fills the object position (47b).

- (47) a. Kofí to-o ndwóm énára
 Kofi throw-PST song yesterday
 ‘Kofi sang yesterday’
 b. Ndwóm₁ na Kofí tó-o no₁ énára
 song FOC Kofi throw-PST 3SG.OBJ yesterday
 ‘It was SINGING that Kofi did yesterday.’

We have therefore seen that we do indeed find reconstruction effects at the position of a resumptive pronoun in Akan. Why might one interpret this as evidence for a movement derivation? Typically, there are approaches that assume that a movement-derived resumptive involves somehow turning a full copy of a moved phrase into a resumptive. This can be done by means of partial deletion applying to the lower copy to derive a pronoun, for example (e.g. van Urk 2018; Georgi & Amaechi to appear). Indeed, this has been assumed explicitly for Akan by Arkoh & Matthewson (2013) and Hein & Georgi (2021), who suggest that resumptive pronouns are the result of deletion of NP within the DP that leaves the D head *nó* stranded:

- (48) *Resumption as NP deletion*
 [... _[DP NP nó] ... [... _[DP NP nó]]]

The idea that movement-generated resumptives are derived from full structure offers a straightforward account for the reconstruction, as the ‘reconstructed’ material is present within the deleted NP at the site of the resumptive. Of course, there is then the question of whether base-generated resumptive chains also could have a complex internal structure and be derived by the mechanism in (48), as in the classic proposal by Postal (1966) and the theory of E-type pronouns developed by Elbourne (2001). Indeed, this is more or less exactly what Guillot & Malkawi (2006, 2011) have argued. They show that, in Jordanian Arabic where resumption is island-insensitive, potentially indicating base-generation, (weak) resumptive pronouns show reconstruction effects inside islands. For this reason, they suggest that the option in (48) is possible even when the two NPs are base-generated separately rather than being copies in a movement chain. For this reason, reconstruction effects on their own may not be a reliable diagnostic for movement and should instead be considered alongside other potential movement evidence (see e.g. section 4.1).

3.4 Crossover effects

The final potential movement diagnostic we want to discuss are crossover effects. Crossover effects involve a configuration in which a displaced element is also co-indexed with a pronoun. A distinction is typically made between two types of crossover situations: Strong Crossover (SCO) and Weak Crossover (WCO).

Consider the example in (49a), which illustrates SCO. Here, the object wh-phrase *who* is

extracted across a co-referent pronoun which c-commands the base-position of the wh-phrase. This example is ungrammatical under the bound pronoun interpretation, but grammatical if *he* refers to someone else. The example in (49b) does not involve crossover, as the moved wh-phrase does not ‘cross’ the bound element. In other words, *him(self)* does not c-command the movement gap (a pronoun is excluded here due to Principle B).

- (49) *Strong Crossover*
a. *Who₁ does he₁ love ___₁ ?
b. Who₁ ___₁ loves him*(self)₁?

In WCO configurations, the co-indexed pronoun is embedded inside another DP, e.g. as the possessor. This configuration nevertheless leads to a degradation in acceptability. This was dubbed ‘weak’ crossover by Wasow (1972) as the ungrammaticality of (50a) is often judged to be less severe than (49a), yet still clearly detectable.

- (50) *Weak Crossover*
a. ?*Who₁ does [his₁ mother] love ___₁ ?
b. Who₁ ___₁ loves [his₁ mother] ?

The relevant question at this point is what crossover effects actually show and why they could be relevant as a diagnostic for movement in resumptive dependencies. As for SCO effects, it is often assumed that they can be subsumed under Principle C (Chomsky 1981). Since the bound pronoun c-commands the trace in (49a), this can be viewed as a Principle C violation either due to the fact that the R-expression reconstructs or because the gap position contains an empty trace that counts as an R-expression for the purposes of Binding Theory. As such, SCO effects would not tell us anything different than the Principle C reconstruction examples in the preceding section (and indeed, we have already seen that such constructions are ungrammatical in Akan).

WCO effects are potentially more informative in this regard. They cannot be straightforwardly reduced to Principle C violations since the pronoun does not c-command the trace of the extracted element. There are various ways in which the WCO configuration could be understood to diagnose (\bar{A} -)movement. Traditionally, WCO has been used to motivate the idea that the tail of a movement dependency, whether realized as a pronoun or a gap, has a special status as a ‘syntactic variable’ ((Chomsky 1981; Reinhart 1983; Safir 1984); also see Koopman & Sportiche 1982). These variables are subject to additional constraints, including Weak Crossover. Importantly, this differs from simple bound variable pronouns, which do not count as syntactic variables, as the following grammatical example shows:

- (51) Every boy₁ told [his₁ mother] that the teacher praised him₁

Here, we have the same surface configuration as WCO, but no ungrammaticality. There is little plausible reason to believe that movement is involved here, instead there is a phrase *every boy* that binds two pronouns acting as variables. There is nothing wrong with this configuration in principle. However, if the lower pronoun has the status of a ‘syntactic variable’ generated by movement, i.e. realized as a null trace in English, then the structure gives rise to a WCO effect. This still leaves open the question of why WCO effects come about, assuming that positing the additional notion of a ‘syntactic variable’ is not an adequate solution.

A possible reason why WCO arises with \bar{A} -movement can be accounted for by the intuition in Reinhart (1983) that bound variable pronouns must have a c-commanding antecedent in an A-position. Since they are co-indexed with a non-referential expression, they must receive their interpretation from binding rather than co-reference. Following standard assumptions,

straightforward then – Akan lacks WCO effects and therefore resumption in Akan fails this potential diagnostic for movement, patterning with island-insensitive resumption languages like Irish.

It turns out that things are actually a little more complicated, however. There is an important consideration that has been neglected by all previous discussions of WCO in Akan, namely that there is another island configuration that Akan does respect: Ross’s (1967) *Left Branch Condition*. While English does not allow extraction from the possessor position of a noun phrase (54), in some languages, such as a subset of Slavic languages, this is possible (Bošković 2005).

(54) *Whose₁ did you meet [___₁ brother] ?

Indeed, it seems that Akan is also a language allowing LBE. As the example in (55) illustrates, it is possible to extract the possessor of a DP, leaving a resumptive pronoun in the possessor position. Recall that we analyze subject resumptives as agreement with a silent resumptive pronoun in the argument position. We apply this same analysis to possessor resumption, too.

(55) Hwáń₁ na [*pro*₁ né-núá] tán Kofi (nó) ?
 who FOC POSS.3SG-brother hate Kofi CD
 ‘Who₁ does his₁ brother hate Kofi?’

This finding introduces a serious confound for the interpretation of putative examples of WCO. While (53b) could be taken to show that Akan resumption lacks a WCO effect, we cannot actually be sure that there is even a crossover configuration here in the first place, as the possibility to extract from possessor position gives rise to the following potential analysis of (53b):

(56) Hwáń₁ na [*pro*₁ né-núá] tán no₁ (nó) ?
 who FOC POSS.3SG-brother hate 3SG.OBJ CD
 ‘Who₁ does his₁ brother hate?’

Here, the wh-phrase is extracted from the possessor position, triggering resumptive agreement on the noun, and the lower pronoun in the direct object position is an ordinary anaphoric pronoun rather than a resumptive one. On this view, the WCO test is simply inconclusive since we cannot easily rule out the analysis in (56). We do not know whether (53b) is grammatical because Akan lacks WCO effects or because there is always the alternative derivation in (56). The question at this point is whether it is still possible to test WCO at all in Akan?

We would like to consider two potential arguments that may indicate that Akan has WCO after all. The first is inspired by a classic argument made by McCloskey (1990/2011) about Irish. In his discussion of determining whether Irish exhibits Strong Crossover, he notes that the grammatical example in (57) allows for two possible analytical interpretations. The first is one in which the resumptive pronoun is the lowest (*é*) and the higher pronoun *sé* is anaphoric. This would be a SCO configuration, meaning that (57) would suggest that Irish does not have SCO effects. The alternative analysis, indicated by the lines in (57), is that the higher pronoun is the resumptive and the lower pronoun is simply anaphoric, in which case we do not have a crossover configuration.

(57) Cé₁ ar shíl tú [_{CP} gur dhúirt sé₁ [_{CP} go bpósfadh Márie é₁]]
 who COMP thought you COMP said he COMP would.marry Mary him
 ‘Who do you think that he said Mary would marry?’

In response to this, McCloskey notes that we can appeal to epithets which can be bound but may not function as resumptives in Irish (however, note that epithets may function as resumptives in other languages, e.g. some dialects of Arabic; see Aoun & Choueiri 2000). If we replace the higher pronoun with an epithet, we can be sure that it is the anaphoric pronoun. With the sentence in (58), ungrammaticality results, suggesting that Irish does indeed have a SCO.

- (58)
- | | | | | | | | |
|--|---------|-----------|-------------------------|--------------------|--------|-----------------|--------|
| an fear ₁ | ar | dhúirt | an bastard ₁ | [_{CP} go | maródh | sé ₁ | muid] |
| that | the man | COMP said | the bastard | COMP would.kill | he | us | |
| ‘That is the man ₁ that the bastard ₁ said he ₁ would kill us.’ | | | | | | | |

This is essentially the problem we face with the analysis of WCO configurations like (53b) in Akan. We cannot be sure whether the possessor position is acting as an anaphoric or a resumptive pronoun. If we adopt McCloskey’s approach, however, we see that epithets cannot function as resumptive pronouns in Akan (59b).

- (59) *Epithets are not possible resumptives*
- a. Hwáń₁ na Yaw tán nó₁ ?
 Who FOC Yaw hate 3SG.OBJ
 ‘Who₁ does Yaw hate?’
- b. *Hwáń₁ na Yaw tán gyimífóó nó₁ ?
 Who FOC Yaw hate fool DEF
 ‘Who₁ does Yaw hate the fool₁?’

This means that, if we fill the possessor position with a bound epithet instead of a pronoun, we can be sure that the lower pronoun in object position must be resumptive pronoun and we therefore have the configuration to test WCO. As (60) shows, this example is ungrammatical, which we could interpret as indicating that Akan in fact does show WCO when the derivation in (56) is blocked.

(60) *Bound epithet triggers WCO*

*Hwán₁ na [DP gyimífó₁ nó₁ é-maamé] hú-u no₁ (nó) ?
 who FOC fool DEF 3SG.POSS-mother see-PST 3SG.OBJ CD
 ‘Who₁ did the fool’s₁ mother see?’

Another context that might support this conclusion comes from what Postal (1993) called ‘secondary crossover effects’, originally discussed by Higginbotham (1980) (also see Safir 1984). The examples in (61) exhibit the secondary WCO paradigm.

(61) *Secondary Weak Crossover*

- a. [Whose₁ mother]₂ ___₂ hates him₁ ?
- b. *[Whose₁ mother]₂ does [his₁ sister] hate ___₂ ?

What distinguishes secondary WCO from regular WCO is that the quantifier that binds the pronoun is contained inside the moving phrase rather than being the moved phrase itself (compare: *Who₁ does his₁ sister hate?). Nevertheless, we find unacceptability just in case the bound pronoun is ‘crossed’ by movement (61b), i.e. if the pronoun is not c-commanded by the base-position of the moved phrase containing the binder.

The analytical challenge posed by such data is that appealing to binding of the pronoun by a trace in an A-position is not straightforwardly possible as the trace now bears the ‘wrong’ index, i.e. 2 in (61a). Nevertheless, this example is acceptable. What we can assume is at play here is that a pronoun may be bound from the possessor position of a phrase in an argument position (see Büring 2004 for an explicit proposal for how this could work). If we assume that movement reconstructs, then possessor binding from an argument position will be possible in (61a), but not in (61b) where the base position is lower than the phrase containing the bound pronoun.

If we recreate the secondary WCO paradigm in Akan, we find the same pattern as we do for English. We have a secondary WCO effect in (62b) where the resumptive pronoun is an object, while binding from the possessor is possible if the position of the subject resumptive pronoun c-commands the bound pronoun (62a).

(62) *Secondary WCO in Akan*

- a. Me-bisá-a sé [hwan₁ ba]₂ na ɔ₂-hú-u no₁
 1SG-ask-PST COMP who child FOC 3SG.SBJ-see-PST 3SG.OBJ
 ‘I asked whose₁ child saw him₁.’
- b. *Me-bisá-a sé [hwán₁ ba]₂ na n₁-adanfo sómá-a no₂
 1SG-ask-PST COMP who child FOC POSS-friend send-PST 3SG.OBJ
 ‘I asked whose₁ child his₁ friend sent’.

This example also allows us to avoid the confound involving extraction from the possessor, but in a slightly different way. We can rule out the possibility of the possessor position in (62b) being the resumptive, as it bears a different index to the moved phrase. For this reason, we can be certain that we have a crossover configuration in (62b) and that the reason for the ungrammaticality must be that there is no c-commanding argument position from which possessor binding can take place. If these arguments hold water, then it would seem that we can maintain the claim that Akan resumption shows WCO effects after all.

3.5 Base generation in Akan

In addition to the arguments we have seen above, which may be interpreted as supporting the claim that resumptive dependencies in Akan involve movement, there are also language-

internal reasons to doubt that base-generation is involved in all \bar{A} -constructions. The evidence for this, discussed by Korsah & Murphy (2020), comes from the fact that there are some constructions in Akan that do seem to result from base-generation and these have different properties to the constructions we have been focusing on.

The first construction that is relevant is the *déé*-construction. While this construction bears some initial similarity to the *na*-focus construction, it was noted that it does not show tonal overwriting. This led previous researchers, e.g. Marfo (2005), to claim that tonal overwriting was specific to the focus construction. Korsah & Murphy (2020) offer an alternative view, pointing out that, in contrast to the *na*-focus construction and relativization, the *déé*-construction does not show any reflexes of movement – neither tonal overwriting nor anti-agreement. This difference can be seen in (63).

(63) *No tonal overwriting or anti-agreement in the déé-construction*

- a. Kofi₁ na ϵ/∂_1 -káń-n ḱrataá nó
 Kofi FOC 3-/3SG.SBJ-read-PST book DEF
 ‘It is Kofi who read the book.’
- b. Kofi₁ déé, * ϵ/∂_1 -kan-n ḱrataá nó
 Kofi TOP *3-/3SG.SBJ-read-PST book DEF
 ‘As for Kofi, he read the book.’

The conclusion that Korsah & Murphy (2020) draw is that the pivot of the *déé*-construction is base-generated, whereas the *na*-focus construction involves movement. If this is the case, then we have good reason to believe that Akan has a base-generation strategy for \bar{A} -dependencies that has distinctly different properties to the constructions we are assuming to be derived by movement (i.e. *na*-focus constructions and relativization). Importantly, however, neither type of construction shows sensitivity to islands with nominal extraction.

A similar argument can be made on the basis of the following construction that is also discussed in Korsah & Murphy (2020). They point to examples such as (64b) which may, at first glance, appear to be an example of movement of the embedded subject and concomitant subject resumption.

- (64) a. Kofi nim [_{CP} $\epsilon\epsilon$ Ám'má p ϵ Yaw]
 Kofi know that Ama love Yaw
 ‘Kofi knows that Ama loves Yaw.’
- b. Kofi nim Ám'má₁ [_{CP} $\epsilon\epsilon$ ∂_1 -p ϵ Yaw]
 Kofi know Ama that 3SG.SBJ-love Yaw
 ‘Kofi knows Ama to be someone who loves Yaw.’

Two things are unexpected about (64b) if it is movement, however. We do not find tonal overwriting on the embedded verb p ϵ and the unagreeing subject pronoun ϵ - is not possible, as (65) shows.

- (65) Kofi nim Ám'má₁ [_{CP} $\epsilon\epsilon$ { ∂_1 -/* ϵ_1 -}p ϵ Yaw]
 Kofi know Ama that {3SG.SBJ-/*3-}love Yaw
 ‘Kofi knows of Ama that she loves Yaw.’

Since both of these can be taken to be diagnostics of movement, Korsah & Murphy (2020) propose that this construction involves prolepsis, i.e. base-generation and binding (Salzmann 2017a), rather than movement. This is further supported by the fact that this construction shows idiosyncratic predicate restrictions. While it is possible with ‘know’, it does not work with ‘think’ and ‘say’ (66b). This lexical restriction makes sense if the higher object is actually an object of the higher verb, but remains rather puzzling if movement is involved.

- (66) a. *Kofi dwene Ám'má₁ [_{CP} sɛ ɔ₁-pɛ Yaw]
 Kofi think Ama that 3SG.SBJ-like Yaw
Int: 'Kofi thinks of Ama that she loves Yaw.'
 b. *Kofi ka-a Ám'má₁ [_{CP} sɛ ɔ₁-pɛ Yaw]
 Kofi say-PST Ama that 3SG.SBJ-like Yaw
Int: 'Kofi said of Ama that she loves Yaw.'

What both of these examples show is that Akan does in principle have a strategy for forming \bar{A} -dependencies using base-generation and binding. Importantly, however, the canonical properties of \bar{A} -constructions we have identified elsewhere are absent in these constructions. This provides an indirect argument against treating *na*-focus constructions and relativization as involving base-generation, as one would then have to find an alternative explanation for their divergent behaviour with regard to tonal overwriting, etc., that did not rely on movement (see section 4.2.2 for further discussion).

4 Discussion

4.1 The resumption profile of Akan

As we have seen, the picture that emerges from a close look at resumption in Akan is a mixed one. While nominal resumption does not show sensitivity to islands, it does show a number of other effects which one might want to classify as evidence for movement, e.g. cyclicity effects, reconstruction effects, and potentially crossover effects. As we will discuss in this section, conflicting diagnostics of movement within resumptive languages is not unusual, but we believe Akan stands out in that it seems to pass almost every putative diagnostic except for islandhood.

How does this fit into the cross-linguistic landscape of resumption? Some of the data discussed in section 2 and that has been mentioned in the course of the preceding discussion are summarized in the table in (67), which we have organized according to the different kinds of resumption profiles.

(67) *Some resumption profiles cross-linguistically*¹²

	Island-sensitive?	Evidence for \bar{A} -movement?		
		Crossover effects	Cyclicity effects	Reconstruction effects
Type Ia (Irish)	✗	✗	(✗)	—
Type Ib (Bulgarian)	✗	✗	—	✗
Type IIa (Vata)	✓	✓	—	—
Type IIb (Welsh)	(✓)	—	✓	✓
Type III (Scottish Gaelic?)	✓	—	✓	✗
Type IVa (Akan)	✗	(✓)	✓	✓
Type IVb (Jordanian Arabic)	✗	—	—	✓
Type IVc (Swedish)	✗	%	—	(✓)

¹²Some clarifications are in order about this table. The brackets indicate that the status of this diagnostic is controversial or subject to additional caveats. First, as discussed in footnote 2, the island-sensitivity of resumption in Welsh is actually not so clear-cut. For Irish, the profile discussed is only for a^N -chains. As McCloskey (2002) shows, a^L -chains have Type II properties. The reason for the brackets around cyclicity effects is that there are

As (67) makes clear, alongside what we have called Type I and II languages in which island-sensitivity mostly patterns together with other movement diagnostics, there are some mixed profiles. As discussed in section 2, it is unclear whether there is even a true Type III language, i.e. a language with island-sensitive resumption that fails other diagnostics for movement. Scottish Gaelic, as analyzed by Adger & Ramchand (2005), is perhaps the best candidate for such a language, but the evidence for resumption is somewhat more indirect as the resumptives are often null in their crucial examples. While Scottish Gaelic lacks reconstruction effects, it does show cyclicity effects on complementizers similar to what is found in Irish.

There are a few other languages that come into question for a Type IV profile, however, i.e. a language without island effects but that shows evidence of movement. As discussed above, Jordanian Arabic has been argued to show reconstruction effects in the absence of islands (Guilliot & Malkawi 2011), but other diagnostics remain unclear. A language with a potential expanded Type IV profile could be Swedish. However, the situation surrounding resumption is complicated; while it has been claimed that resumptives show both WCO amnesty (Engdahl 1985:9) and reconstruction for Principle A to the site of a resumptive pronoun (Zaenen et al. 1981), Asudeh (2012) presents several important qualifications about these data that may serve to weaken the case. Crossover is subject to speaker variation and the purported example of reconstruction by Zaenen et al. (1981) is subject to a serious confound, as the resumptive involved is arguably not a genuine resumptive (see Asudeh 2012: 35–36).

For this reason, there appears to be no really obvious Type IV language apart from Akan. According to the results of our investigation, Akan passes all three relevant movement diagnostics (with crossover admittedly less conclusive), yet still lacks island-sensitivity. There appears to be a genuine mismatch between island effects and other movement properties. The question that now follows from these findings is how one should analyze resumption in Akan. As we will see, the tension between island-sensitivity and other diagnostics means that it does not fit easily into the movement vs. base-generation dichotomy. For this reason, there are essentially two different roads one could go down, neither of which is entirely free of problems.

4.2 Analytical consequences

If Akan is the best example of a mismatched Type IV resumption profile, then how can we go about reconciling the tension between a lack of island-sensitivity and putative evidence for movement? Given our current state of theoretical understanding of resumption, it seems that there are essentially two options: either Akan resumption is derived by movement and some other process is responsible for the lack of island effects, or resumption in Akan does not involve movement (e.g. base-generation) and the apparent evidence for movement must then receive an alternative explanation. In this section, we discuss each of these possibilities in turn. As we shall see, neither approach seems entirely satisfactory at present.

4.2.1 Akan resumption as movement?

The first analytical possibility to account for the apparent contradictory evidence in Akan is to assume, as Korsah & Murphy (2020) do, that Akan resumption is derived by movement and that the availability of a resumptive pronoun is directly responsible for obviating island effects. On their view, islands are PF constraints that penalize gaps in certain configurations. They assume that this can be obviated by a resumptive pronoun at the tail of the dependency (a kind of grammaticalized intrusive resumption). In support of their approach, they point to

so-called ‘mixed chains’ in which there can be both a^N and a^L complementizers in the same dependency. While this can be readily analyzed as a kind of prolepsis, it certainly introduces another complication. Finally, since the baseline example of WCO in Akan is acceptable, for reasons discussed in section 3.4, the argument for crossover effects relies on more complicated arguments.

the observation that certain kinds of extraction that do not lead to overt resumptive pronouns (e.g. PP and VP movement) are also not sensitive to islands. They therefore directly link the presence of a resumptive to the obviation of island effects. They propose, somewhat tentatively, that there is a PF process equivalent to Trace Conversion in semantics (e.g. Fox 2002) that they call *Pronoun Conversion*. This is simply stated as a rule that turns a full copy of a moved phrase into a corresponding pronoun.

While this seems to give a straightforward reconciliation of the evidence for movement with island-insensitivity, it complicates our view of islands significantly. Korsah & Murphy are forced to assume that islands are representational constraints, i.e. that they hold at PF, and that resumption can have an ‘intrusive’ effect. While this view has some precedent, it is typically viewed as an extragrammatical ‘repair’ strategy rather than a genuine grammatical option (Sells 1984; Heestand et al. 2011; Beltrama & Xiang 2016; Morgan & Wagers 2018). Furthermore, recall from section 3.1 the empirical challenge for Korsah & Murphy’s account that was raised by Hein & Georgi (2021). Hein & Georgi note that there is a class of nominal expressions, e.g. idiom chunks, predicate nominals and non-specific indefinites, which do not trigger overt resumptive pronouns, but nevertheless are subject to island constraints. The conclusion that Hein & Georgi (2021) draw is that Korsah & Murphy’s (2020) hypothesis about island repair cannot be correct in light of this. Instead, they suggest that the aforementioned nominals are bare NPs rather than DPs, and that islands should be treated as category sensitive, i.e. only DP extraction is subject to island constraints in Akan.

This still leaves the question of how to derive the absence of resumptive pronouns with NPs, VPs and PPs, however. Hein & Georgi (2021) propose a deletion-based account in which resumptives in Akan are derived from movement applying to NPs, VPs and PPs, but not DPs. This leads to the view of resumptive pronouns as a stranded D head that is found only with DP-extractees (68).

(68) DP-extractee: [_{DP} D NP] → [_{DP} D NP]	VP-extractee: [_{VP} V XP] → [_{VP} ∇ XP]
NP-extractee: [_{NP} N XP] → [_{NP} N XP]	PP-extractee: [_{PP} P NP] → [_{PP} P NP]

It is worth mentioning that this particular line of analysis has been argued against by Korsah & Murphy (2020) on the basis of haplology effects. Saah (1994) pointed out that a sequence of homophonous determiner *nó*’s in Akan are not possible. As (69a) shows, if the first *nó* is a resumptive pronoun, then this may occur adjacent to a clausal determiner. If the first of the determiner sequence is also a genuine determiner, however, then this is ruled out and one of them must be deleted.¹³

¹³Actually, it is not even a requirement that the determiners be homophonous for this effect to obtain. In relative clause, the clausal determiner actually ‘agrees’ with the head noun, as seen with relatives clauses with a head noun that have the proximal determiner *yi* (see Saah 1994:157). Here, this also triggers the same form of the clausal determiner (Saah 2010). This CD may appear next to a resumptive pronoun (*ia*), however, when adjacent to a genuine determiner, the CD must be absent (*ib*).

- (i) a. [_{DP} papa yi [_{CP} Op₁ aa [_{DP} maame no] pɛ nó₁ yi] ba-ae
 man PROX REL woman DET love 3SG.OBJ CD come-PST
 ‘This man who the woman loves came.’
 b. [_{DP} papa yi [_{CP} Op₁ aa ɔ₁-pɛ [_{DP} maame no] (*yi)] ba-ae
 man PROX REL 3SG-love woman DET (*CD) come-PST
 ‘This man who loves the woman came.’

This is a useful observation as it is otherwise unclear in (69b) that it is actually the CD which is dropped, as it could equally be the object determiner. Examples such as (*ib*) make this clear, however, as the two forms differ.

(69) *Determiner haplology effect* (Saah 1994:153–154):

- a. [DP Abɔ́frá [CP Op₁ áa Kofi hú-u **nó₁** *(**nó**)] á-ba
 child REL Kofi saw-PST 3SG.OBJ CD PERF-come
 ‘The child that Kofi saw has come.’
- b. [DP Onípa [CP Op₁ áa ɔ₁-tó-o [DP ndwóm **nó**] (***nó**)] yɛ-ɛ
 person REL 3SG.SBJ-throw-PST song DEF CD do-PST
 adé
 something
 ‘The person who sang the song did well.’

Apart from this, it is worth considering what Korsah & Murphy (2020) could say in light of the data presented by Hein & Georgi. One possibility would be to claim that the class of nominal expressions they discuss are incompatible with an overt pronoun for independent reasons. In other words, they are obligatory pro drop contexts for resumptives. On this view, it might be possible to maintain that extraction of these phrases trigger island-obviating resumptives, but that these can never be realized overtly. Indeed, Korsah & Murphy have to assume this for extraction of inanimate DPs outside of the special anti-pro-drop configurations discussed by Korsah (2017) (e.g. in the presence of a clause-final adverb). Such a move is not entirely satisfying, however, as it is unclear how one could falsify it.

That said, it is worth noting that the nominal expressions that Hein & Georgi discuss, by virtue of being non-referential, are also not compatible with overt anaphoric pronouns. Consider the example in (70) with a predicate nominal.

- (70) Na Kwadwo pɛ sɛ ɔ-yɛ odusini₁, nanso ɔ-a-n-yɛ ?bi₁ /
 PST Kwadwo want COMP 3SG-FUT-be herbalist but 3SG-PERF-NEG-be INDEF
 *no₁ / gap₁
 3SG.OBJ
 ‘Kwadwo wanted to become a herbalist, but he did not become (one)’.

Here, the only possible pronoun forms are a gap or (somewhat marginally) an indefinite pronoun. Thus, whatever constraint applies to rule out an overt form here (i.e. an obligatory pro-drop rule) could also be applying to resumptive pronouns, too.

In a similar vein, consider similar context where the anaphoric element is contained inside an adjunct island. Here, we find that a non-referential extractee triggers an obligatory null anaphoric pronoun (71a), whereas a referential extractee does not (71b).¹⁴

- (71) a. Nípa na Kofi súró —₁ [CP éśánesé ɔ-féré {—₁ / *nó₁}]
 person FOC Kofi fear because 3SG.SBJ-be.shy.of 3SG.OBJ
 ‘It’s people that Kofi really fears because he is shy of (them).’
- b. Nípa yi₁ na Kofi súró nó₁ [CP éśánesé ɔ-féré {*—₁ / nó₁}]
 person this FOC Kofi fear 3SG.OBJ because 3SG.SBJ-be.shy.of 3SG.OBJ
 ‘It’s this person that Kofi really fears because he is shy of him.’

Stopping short of analyzing the gap in (71a) as a parasitic gap, it seems that, even when used anaphorically, the overt form of the pronoun is not possible when anteceded by a bare nominal. As mentioned above, this could indicate that such cases count as obligatory pro-drop and would therefore be the opposite of the non-pro-drop contexts discussed by Korsah (2017). In

¹⁴This is clearly a typical parasitic gap configuration, but we do not analyze it as such due to the fact that Akan has pro-drop and that such gaps are not possible with DP extraction. One would have to say Akan only has parasitic gaps with NP movement, but this would be almost impossible to differentiate from the kind of pro-drop we see in (70).

light of these observations, it may in fact be possible to maintain Korsah & Murphy's (2020) view if such data point to the conclusion that pronouns with non-referential antecedents must always undergo pro-drop, i.e. they do not surface as *nó*. This would then presumably also apply to resumptive pronouns.

Overall, the movement-based approach to resumption in Akan can easily accommodate reconstruction, crossover and cyclicity effects, but has to say something additional about the absence of island effects. Since we do, in fact, find island effects with some extractee types, one cannot simply say that islands do not exist in Akan for whatever reason. Instead, one must find a way tie island violations to certain kinds of extractees, i.e. referential nominals. Hein & Georgi (2021) suggest a category-sensitive restriction for island constraints, but the details of this have yet to be worked out. Korsah & Murphy (2020) suggest that only grammatical resumption can avoid island effects in Akan. As we have seen, this requires the assumption that island obviation even applies under obligatory pro-drop. At this point, it seems that neither of these approaches can offer a completely satisfactory account.

4.2.2 Akan resumption as base-generation?

An alternative approach to the conflicting diagnostic for movement is to take islandhood at face value, i.e. as indicative of a base-generation derivation, and try to find other explanations for the putative evidence for movement that appears to be in conflict with this conclusion. It is certainly true that the full cross-linguistic picture involving phenomena like reconstruction and crossover effects is murky, as indicated by the table in (67). In addition, both island-sensitive and island-insensitive languages have been argued to show reconstruction and crossover effects, so it is rather unclear why this variation should exist if they are simply diagnostics for movement vs. base-generation (see Salzmänn 2017b:196-206 for discussion).

If certain tests, such as reconstruction and crossover can ultimately be explained away as inconclusive tests for movement, then we are left with cyclicity effects such as the tonal overwriting pattern in the Asante Twi dialect. It is then incumbent on a base-generation analysis to provide an alternative account of this pattern that does not tie it to syntactic movement at all. As the table in (67) indicates, cyclicity effects are found with other island-insensitive languages so they may also turn out not be reliable indicators of movement either. But the question still remains how exactly one could reconcile the tonal overwriting data, which Korsah & Murphy (2020) argue provides compelling evidence for a movement derivation, with a base-generation account.

The first possibility would be to treat tonal overwriting as independent of movement. Korsah & Murphy (2020) show in some detail that tonal overwriting is neither construction-specific, nor is it found with base-generation constructions. An alternative approach, however, could be to consider the domain of tonal overwriting as linearly defined such that it applies to all verbs that are linearly crossed by certain types of \bar{A} -dependency (e.g. those in relative clauses and focus constructions).¹⁵ Examples in Korsah & Murphy (2020) such as (72) illustrate that movement from the matrix clause does not trigger tonal overwriting in the lower clause. However, this would also be compatible with the aforementioned view that it is about the verbs that are crossed by the dependency in a purely linear sense.

- (72) a. Kofi **ka**-a [CP sɛ ɔ-**dɔ** Ám'má]
Kofi say-PST that 3SG.SBJ-love Ama
'Kofi said that he loves Ama.'

¹⁵Thanks to Matthew Hewett for pointing out this possibility and suggesting the context in (73) to test it.

- b. Hwáń₁ na ɔ₁-ká-a [CP sé ɔ-dɔ Ám'má] ?
 who FOC 3SG.SBJ-say-PST that 3SG.SBJ-love Ama
 ‘Who said that he loves Ama?’

This alternative can be conclusively dismissed, however, by considering cases in which a verb is linearly crossed, while not being along the syntactic path of movement. If we take a sentential subject as in (73a), movement of a lower object will, under standard assumptions, not pass successive-cyclically through the sentential subject, although it does cross it linearly. As (73b) shows, the verb inside the sentential subject is not affected by tonal overwriting.

(73) *Tonal reflex only affects verbs along the movement path*

- a. [DP Atésém [CP sé Kofi pɛ Ámmá]] yɛ-ɛ Kwakú yá.
 rumour that Kofi like Ama make Kwaku pain
 ‘[The rumour that Kofi likes Ama] pained Kwaku.’
- b. Hwáń₁ na [DP atésém [CP sé Kofi pɛ Ámmá]] yé-ɛ no₁ yá nó?
 who FOC rumour that Kofi like Ama make 3SG pain CD
 ‘Who did [the rumour that Kofi likes Ama] pain?’

For this reason, it becomes clear that we must reject a linear-based approach to tonal overwriting.

The fact that the syntactic path to the resumptive is relevant could, however, still be captured by an alternative approach to long-distance dependencies that uses a chain of base-generated binding dependencies. This approach is known as *resumptive prolepsis* and has been proposed for long-distance dependencies in a number of other languages (e.g. Finer 1997; McCloskey 2002; Davies 2003; Adger & Ramchand 2005; Boeckx 2008; Schneider-Zioga 2009). This is the alternative, and, possibly, the only analytical option available for tonal overwriting on the base-generation view.

To see how this works, consider the following example from Kinande in (74). As Schneider-Zioga (2009) discusses, long distance dependencies trigger *wh*-agreement (in this case *kyo*) in each clause containing the dependency.

- (74) *Long-distance dependency in Kinande* (Schneider-Zioga 2009:47)
 ekihi₁ kyo Kambale asi [CP nga kyo Yosefu akalengekanaya [CP nga
 what WH-AGR Kambale know COMP WH-AGR Yosefu thinks COMP
 kyo Mary’ akahuka —₁]]
 WH-AGR Mary cooks
 ‘What does Kambale know that Yosefu thinks that Mary cooks?’

Furthermore, Schneider-Zioga (2009) shows that long-distance movement in Kinande lacks reconstruction effects, unlike local movement. This leads her to conclude that long-distance dependencies in the language are not formed by successive-cyclic movement, but rather by a series of successive binding dependencies (which may themselves involve clause-local movement of the operator/pronoun within the clause) as shown in (75).

- (75) [CP *pro*₁ [C' kyo [TP ... [CP *pro*₁ [C' kyo [TP ... [CP ... *pro*₁ ...]]]]]]]

On this view, the presence of *wh*-agreement could be linked to the presence of a binder in the specifier of C, for example, much like McCloskey (2002) assumes for *a^N*-chains in Irish. Could we apply a similar analysis to tonal overwriting in Akan? Could the apparent exponent of successive-cyclic movement, which Korsah & Murphy analyze as a floating high tone circumfix, also be a reflex of a chain of successive binding dependencies rather than movement?

On this view, it would be similar to how Schneider-Zioga views the *wh*-agreement morpheme *kyo* in (75). Perhaps some phase head such as *C* or *v* is responsible for introducing a binding operator and then also introduces the floating high tone that triggers overwriting as an additional reflex of this in a very similar way to what McCloskey (2002) proposed for Irish complementizers.

There are some reasons to want to avoid this, however. The first is that it is difficult to equate tonal overwriting with base-generation constructions since, as we have seen in section 4.2.2, there are what look like genuine base-generation constructions in Akan that lack precisely this property. For this reason, one would have to come up with a reason for why only some base-generated \bar{A} -dependencies trigger tonal overwriting.

A further problem pertains to the issue of island effects. Of the analyses that employ resumptive prolepsis, many of them use this approach to try to capture the island-sensitivity of the dependency. Adger & Ramchand (2005), on the other hand, appeal to binding as the reason for island-sensitivity in Scottish Gaelic, as the operation Agree can be assumed to be restricted by phases. A successful reduction of all types of islands to phases has, to the best of our knowledge, not been developed, however (but see Müller 2010 on CED islands).

Even with that said, what we would not expect to find if tonal overwriting involved base-generation is that some of such dependencies are island-sensitive, while others are not. As we have already seen, this is, in fact, exactly what we see. Recall examples (26) and (28), repeated below in (76), which involve long-distance extraction of a PP and a VP, respectively. As we saw, extraction of VPs and PPs is both incompatible with an overt resumptive pronoun and sensitive to island boundaries. However, under long-distance displacement, we still find the effects of tonal overwriting, as can be seen in (76). The two matrix verbs *nim* and *ka* are underlying low, but surface as high here (the same is true for the embedded verb in (76b), while *dá* in (76a) is underlying high).

- (76) a. [_{PP} Akonwá nó mú] na Ama **ním** [_{CP} sɛ Kofi dá ____{PP}]
 chair DEF in FOC Ama know that Kofi lie
 ‘Ama knows that Kofi lies IN THE CHAIR.’
 b. [_{VP} dán sí-é] na Ám'má **ká**-a [_{CP} sé Kofi á-yó ____{VP}]
 house build-NMLZ FOC Ama say-PST that Kofi PERF-do
 ‘Ama said that Kofi BUILT A HOUSE (not bought a car)’

If tonal overwriting were indicative of resumptive prolepsis, and this strategy for forming long-distance dependencies is island-insensitive, then we would not expect to observe overwriting with extraction types which do trigger island violations, e.g. with PPs and VPs, as these would have to involve genuine movement. Since this is exactly what we see, it is unclear what tonal overwriting is actually a reflex of. It is conceivable, perhaps, that tonal overwriting reflects local movement of the operator in each clause in (75), but then it becomes even more puzzling why islands should ever appear with dependencies that normally show tonal overwriting (since these cannot have a base-generated derivation).

5 Conclusion

In this paper, we have discussed the properties of resumption in \bar{A} -dependencies in Akan. While resumptive dependencies in Akan are island-insensitive, they also show various other properties that could be taken to indicate a movement derivation. For example, they show both reconstruction and cyclicity effects. Furthermore, we showed that the basic crossover paradigm in Akan is confounded by the lack of Left-Branch Condition islands, meaning that the possessor could actually be the resumptive in such configuration. Nevertheless, Akan could perhaps still be argued to show crossover effects in certain other cases, including cases

involving epithets and secondary crossover configurations. What is more, Akan has a class of base-generated \bar{A} -constructions that do not show some of the hallmarks of movement mentioned above. This seems to indicate that base-generation cannot be the only way to generate resumptive dependencies in the language.

With all this in mind, it is not so clear how best to account for the mixed resumption profile of Akan. Compared to other resumption languages, it seems to show considerably more positive results for movement diagnostics, while it maintains insensitivity to islands. As we have discussed, if one assumes that a movement derivation is responsible for generating resumptives, then one has to find a satisfactory account of why islands only hold with extraction of referential nominals. The alternative is to adopt base-generation and then try to find other explanations for all of the apparent movement effects such as reconstruction, crossover and cyclicity effects. We believe that the robust cyclicity effect we find in tonal overwriting will be particularly difficult to model in an approach that eschews movement.

For this reason, a completely satisfying account of resumptive dependencies in Akan remains unavailable at this time. Further empirical and analytical work in clarifying the cross-linguistic landscape of resumption will certainly help to make clear what options are available to account for the apparently contradictory evidence for movement that we find. As it stands, though, Akan would seem to offer one of the most extreme cases of a language which, despite island-insensitivity, shows all the classic hallmarks of movement. Clarifying precise implications that this has for a theory of islands is an important task for future work.

References

- Ackerman, Lauren, Michael Frazier & Masaya Yoshida (2018). Resumptive Pronouns Can Ameliorate Illicit Island Extractions. *Linguistic Inquiry* 49(4). 847–859.
- Adger, David & Gillian Ramchand (2005). Merge and Move: Wh-Dependencies Revisited. *Linguistic Inquiry* 36(2). 161–193.
- Aoun, Joseph & Elabbas Benmamoun (1998). Minimality, Reconstruction and PF Movement. *Linguistic Inquiry* 29(4). 569–597.
- Aoun, Joseph & Lina Choueiri (2000). Epithets. *Natural Language and Linguistic Theory* 18(1). 1–39.
- Aoun, Joseph, Lina Choueiri & Norbert Hornstein (2001). Resumption, Movement and Derivational Economy. *Linguistic Inquiry* 32(3). 371–403.
- Arkoh, Ruby & Lisa Matthewson (2013). A Familiar Definite Article in Akan. *Lingua* 123. 1–30.
- Asudeh, Ash (2012). *The Logic of Pronominal Resumption*. Oxford University Press: Oxford.
- Baier, Nico (2018). *Anti-Agreement*. PhD thesis, University of California, Berkeley.
- Barss, Andrew (1986). *Chains and Anaphoric Dependence: On Reconstruction and its Implications*. PhD thesis, MIT.
- Beltrama, Andrea & Ming Xiang (2016). Unacceptable But Comprehensible: The Facilitation Effect of Resumptive Pronouns. *Glossa* 1(1). 29. 1–24.
- Bennett, William G., Akinbiyi Akinlabi & Bruce Connell (2012). Two Subject Asymmetries in Defaka Focus Constructions. In J. Choi et. al. (ed.). *Proceedings of the 29th West Coast Conference on Formal Linguistics*. Cascadilla Proceedings Project: Somerville, MA. 294–302.
- Boadi, Lawrence A. (1971). The Passive in Akan. *Journal of African Languages* 10(3). 34–41.
- Boadi, Lawrence A. (1974). Focus marking in Akan. *Linguistics* 140. 5–57.
- Boeckx, Cedric (2008). *Understanding Minimalist Syntax: Lessons from Locality in Long-Distance Dependencies*. Blackwell: Oxford.
- Bombi, Carla, Mira Grubic, Agata Renans & Reginald A. Duah (2019). The Semantics of the Clausal Determiner *No* in Akan (Kwa). In M. T. Espinal, E. Castroviejo, M. Leonetti, L. Mc-

- Nally & C. Real-Puigdollers (eds). *Sinn und Bedeutung (SuB) 23*. Vol. 1. Universität Konstanz: Konstanz. 181–199.
- Borer, Hagit (1984). Restrictive Relatives in Modern Hebrew. *Natural Language and Linguistic Theory* 2(2). 219–260.
- Borsley, Robert D. (2013). On the Nature of Welsh Unbounded Dependencies. *Lingua* 113. 1–29.
- Borsley, Robert D., Maggie Tallerman & David Willis (2007). *The Syntax of Welsh*. Cambridge University Press: Cambridge.
- Bošković, Željko (2005). On the Locality of Left-Branch Extraction and the Structure of NP. *Studia Linguistica* 59(1). 1–45.
- Büring, Daniel (2004). Crossover Situations. *Natural Language Semantics* 12(1). 23–62.
- Büring, Daniel (2005). *Binding Theory*. Cambridge University Press: Cambridge.
- Chomsky, Noam (1973). Conditions on Transformations. In S. R. Anderson & P. Kiparsky (eds). *A Festschrift for Morris Halle*. Holt, Rinehart and Winston: New York. 232–286.
- Chomsky, Noam (1981). *Lectures on Government and Binding*. Foris: Dordrecht.
- Chomsky, Noam (2000). Minimalist Inquiries: The Framework. In R. Martin, D. Michaels, J. Uriagereka & S. J. Keyser (eds). *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*. MIT Press: Cambridge, MA. 89–155.
- Chomsky, Noam (2001). Derivation by Phase. In M. Kenstowicz (ed.). *Ken Hale: A Life in Language*. MIT Press: Cambridge, MA. 1–52.
- Davies, William D. (2003). Extreme Locality in Madurese Wh-Questions. *Syntax* 6(3). 237–259.
- Elbourne, Paul (2001). E-Type Anaphora as NP-Deletion. *Natural Language Semantics* 9(3). 241–288.
- Engdahl, Elisabet (1985). Parasitic Gaps, Resumptive Pronouns and Subject Extractions. *Linguistics* 23(1). 3–44.
- Essegbey, James (1999). *Inherent Complement Verbs Revisited: Towards an Understanding of Argument Structure in Ewe*. PhD thesis, Radboud University Nijmegen.
- Fiedler, Ines & Anne Schwarz (2005). Out-of-Focus Encoding in Gur and Kwa. In S. Ishihara, M. Schmitz & A. Schwarz (eds). *Interdisciplinary Studies on Information Structure 03*. Universität Potsdam: Potsdam. 111–142.
- Finer, Daniel L. (1997). Contrasting \bar{A} -Dependencies in Selayarese. *Natural Language and Linguistic Theory* 15(4). 677–728.
- Fox, Danny (2002). Antecedent-Contained Deletion and the Copy Theory of Movement. *Linguistic Inquiry* 33(1). 63–96.
- Genzel, Susanne (2013). *Lexical and Post-Lexical Tones in Akan*. PhD thesis, Universität Potsdam.
- Georgi, Doreen (2014). *Opaque Interactions of Merge and Agree: On the Nature and Order of Elementary Operations*. PhD thesis, Universität Leipzig.
- Georgi, Doreen (2017). Patterns of Movement Reflexes as the Result of the Order of Merge and Agree. *Linguistic Inquiry* 48(4). 585–626.
- Georgi, Doreen & Mary Amaechi (to appear). Resumption in Igbo: two types of resumptives, complex phi-mismatches, and dynamic deletion domains. *Natural Language and Linguistic Theory*
- Goodluck, Helen, Kofi K. Saah & Danijela Stojanović (1995). On the Default Mechanism for Interrogative Binding. *Canadian Journal of Linguistics* 40(4). 377–404.
- Guilliot, Nicolas & Nouman Malkawi (2006). When Resumption Determines Reconstruction. In D. Baumer, D. Montero & M. Scanlon (eds). *Proceedings of WCCFL 25*. Cascadilla Press: Cambridge, MA. 168–176.
- Guilliot, Nicolas & Nouman Malkawi (2011). Weak versus Strong Resumption: Covarying Differently. In A. Rouveret (ed.). *Resumptive Pronouns at the Interfaces*. John Benjamins: Amsterdam. 395–423.

- Heestand, Dustin, Ming Xiang & Maria Polinsky (2011). Resumption Still Does Not Rescue Islands. *Linguistic Inquiry* 42(1). 138–152.
- Hein, Johannes (2017). Doubling and *do*-Support in Verbal Fronting: Towards a Typology of Repair Operations. *Glossa* 2(1). 67. 1–36.
- Hein, Johannes & Doreen Georgi (2021). Asymmetries in Asante Twi A'-movement: On the role of noun type in resumption. In A. Farinella & A. Hill (eds). *Proceedings of NELS 51*. Vol. 1. GLSA: Amherst, MA. 223–236.
- Henderson, Brent (2013). Agreement and Person in Anti-Agreement. *Natural Language and Linguistic Theory* 31(2). 453–481.
- Higginbotham, James (1980). Pronouns and Bound Variables. *Linguistic Inquiry* 11(4). 679–708.
- Kandybowicz, Jason (2015). On Prosodic Vacuity and Verbal Resumption in Asante Twi. *Linguistic Inquiry* 46(2). 243–272.
- Koopman, Hilda & Dominique Sportiche (1982). Variables and the Bijection Principle. *The Linguistic Review* 2(2). 136–160.
- Koopman, Hilda & Dominique Sportiche (1986). A Note on Long Extraction in Vata and the ECP. *Natural Language and Linguistic Theory* 4(3). 357–374.
- Korsah, Sampson (2016). On Deriving Inherent Complement Verb Constructions. In K. Belamy, L. Karvovskaya, M. Kohlberger & G. Saad (eds). *Proceedings of ConSOLE XXIII*. Leiden University Linguistics Centre: Leiden. 52–69.
- Korsah, Sampson (2017). *Issues in Kwa Syntax: Pronouns and Clausal Determiners*. PhD thesis, Universität Leipzig.
- Korsah, Sampson & Andrew Murphy (2020). Tonal Reflexes of Movement in Asante Twi. *Natural Language and Linguistic Theory* 38(3). 827–885.
- Krapova, Iliyana (2010). Bulgarian Relative and Factive Clauses with an Invariant Complementizer. *Lingua* 120. 1240–1272.
- Kroch, Anthony (1981). On the Role of Resumptive Pronouns in Amnestying Island Constraint Violations. In R. A. Hendrick, C. S. Masek & M. F. Miller (eds). *Papers from the 17th Regional Meeting of the Chicago Linguistics Society*. Chicago Linguistic Society: Chicago, IL. 125–135.
- Lahne, Antje (2008). *Where There is Fire There is Smoke. Local Modelling of Successive-Cyclic Movement*. PhD thesis, Universität Leipzig.
- Marfo, Charles (2005). *Aspects of Akan Grammar and the Phonology-Syntax Interface*. PhD thesis, University of Hong Kong.
- McCloskey, James (1979). *Transformational Syntax and Model Theoretic Semantics: A Case Study in Modern Irish*. Dordrecht: Riedel.
- McCloskey, James (1990). Resumptive Pronouns, \bar{A} -Binding and Levels of Representation. In R. Hendrick (ed.). *The Syntax and Semantics of the Modern Celtic Languages*. Academic Press: New York. 199–248.
- McCloskey, James (2002). Resumption, Successive Cyclicity, and the Locality of Operations. In S. Epstein & T. Seely (eds). *Derivation and Explanation in the Minimalist Program*. Blackwell: Oxford. 184–226.
- McCloskey, James (2011). Resumptive Pronouns, \bar{A} -Binding and Levels of Representation in Irish. In A. Rouveret (ed.). *Resumptive Pronouns at the Interfaces*. John Benjamins: Amsterdam. 65–119.
- Morgan, Adam M. & Matthew W. Wagers (2018). English Resumptive Pronouns Are More Common Where Gaps Are Less Acceptable. *Linguistic Inquiry* 49(4). 861–876.
- Müller, Gereon (2010). On Deriving CED Effects from the PIC. *Linguistic Inquiry* 41(1). 35–82.
- Osam, Emmanuel K. (1996). Animacy Distinctions in Akan Grammar. *Studies in the Linguistic Sciences* 23(2). 153–164.
- Ouhalla, Jamal (1993). Subject-Extraction, Negation and the Anti-Agreement Effect. *Natural Language and Linguistic Theory* 11(3). 477–518.

- Pan, Victor J. (2016). *Resumptivity in Mandarin Chinese*. de Gruyter: Berlin.
- Postal, Paul M. (1966). On So-Called ‘Pronouns’ in English. In F. P. Dinneen (ed.). *Report of the 17th Annual Round Table Meeting on Language and Linguistics*. Georgetown University Press: Washington, D.C. 177–206.
- Postal, Paul M. (1993). Remarks on Weak Crossover Effects. *Linguistic Inquiry* 24(3). 539–556.
- Reinhart, Tanya (1983). Coreference and Bound Anaphora: A Restatement of the Anaphora Question. *Linguistics and Philosophy* 6(1). 47–88.
- Ross, John R. (1967). *Constraints on Variables in Syntax*. PhD thesis, MIT.
- Rouveret, Alain (2008). Phasal Agreement and Reconstruction. In R. Freidin, C. P. Otero & M. L. Zubizarreta (eds). *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*. MIT Press: Cambridge, MA. 167–195.
- Saah, Kofi K. (1988). Wh-Questions in Akan. *Journal of West African Languages* 18(1). 17–28.
- Saah, Kofi K. (1989). Reflexivization in Akan. *Journal of West African Languages* 19(2). 15–28.
- Saah, Kofi K. (1994). *Studies in Akan Syntax, Acquisition and Sentence Processing*. PhD thesis, University of Ottawa.
- Saah, Kofi K. (2010). Relative Clauses in Akan. In E. O. Aboh & J. Essegbey (eds). *Topics in Kwa Syntax*. Springer: Dordrecht. 91–109.
- Saah, Kofi K. & Helen Goodluck (1995). Island Effects in Parsing and Grammar: Evidence from Akan. *The Linguistic Review* 12(4). 381–409.
- Safir, Ken (1984). Multiple Variable Binding. *Linguistic Inquiry* 15(4). 603–638.
- Salzmann, Martin (2017a). Prolepsis. In M. Everaert & H. van Riemsdijk (eds). *The Wiley-Blackwell Companion to Syntax*. Vol. 5. Wiley-Blackwell: Somerset, NJ. 3203–3245.
- Salzmann, Martin (2017b). *Reconstruction and Resumption in Indirect A'-Dependencies: On the Syntax of Prolepsis and Relativization in (Swiss) German and Beyond*. de Gruyter: Berlin.
- Schachter, Paul (1973). Focus and Relativization. *Language* 49(1). 19–46.
- Schachter, Paul & Victoria Fromkin (1968). *A Phonology of Akan: Akuapem, Asante, Fante*. University of California, Los Angeles: Los Angeles, CA.
- Schneider-Zioga, Patricia (2007). Anti-Agreement, Anti-Locality and Minimality: The Syntax of Dislocated Subjects. *Natural Language and Linguistic Theory* 25(2). 403–446.
- Schneider-Zioga, Patricia (2009). Wh-Agreement and Bounded Unbounded Movement. In J. M. Brucart, A. Gavarró & J. Solà (eds). *Merging Features: Computation, Interpretation and Acquisition*. Oxford University Press: Oxford. 46–59.
- Sells, Peter (1984). *Syntax and Semantics of Resumptive Pronouns*. PhD thesis, University of Massachusetts Amherst.
- Shlonsky, Ur (1992). Resumptive Pronouns as a Last Resort. *Linguistic Inquiry* 23(3). 443–468.
- Tallerman, Maggie (1983). Island Constraints in Welsh. *York Papers in Linguistics* 10. 197–204.
- Titov, Elena (2019). Morphosyntactic Encoding of Information Structure in Akan. *Glossa* 4(1). 27. 1–36.
- van Urk, Coppe (2017). Phase Impenetrability and Resumption in Dinka. Talk given at GLOW 40, Leiden. March 16th 2017.
- van Urk, Coppe (2018). Pronoun Copying in Dinka and the Copy Theory of Movement. *Natural Language and Linguistic Theory* 36(3). 937–990.
- van Urk, Coppe (2020). How to Detect a Phase. In J. van Craenenbroeck, C. Pots & T. Temmerman (eds). *Recent Developments in Phase Theory*. de Gruyter: Berlin. 89–129.
- van Urk, Coppe & Norvin Richards (2015). Two Components of Long-Distance Extraction: Successive Cyclicity in Dinka. *Linguistic Inquiry* 46(1). 113–155.
- Wasow, Thomas (1972). *Anaphoric Relations in English*. PhD thesis, MIT.
- Zaenen, Annie, Elisabeth Engdahl & Joan M. Maling (1981). Resumptive Pronouns Can Be Syntactically Bound. *Linguistic Inquiry* 12(4). 679–682.