Category-sensitive escape from islands in Limbum and Asante Twi*

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Abstract

While strong islands generally constitute domains from which extraction is not possible it has been observed that under certain conditions they may allow DP but not PP gaps. Based on the recent literature on Asante Twi (Kwa, Ghana) and on novel data from Limbum (Grassfields Bantu, Cameroon) this paper shows that strong island configurations in these two African languages are permeable to nominal extractees without restrictions, but block the otherwise admissible movement of VPs and PPs. As DP-displacement from islands shows properties of \overline{A} -movement, an explanation in terms of base-generation and binding of a covert resumptive pronoun, which is only available for nominal elements, is not feasible. Taking into account the overall distribution of overt and covert resumptive pronouns, for Asante Twi, an account of the selective island permeability in terms of repair by resumption as suggested in Korsah & Murphy (2020, 2024) might be possible. For the Limbum pattern, however, this paper argues that such an approach seems implausible. It then goes on to develop an analysis of selective island permeability based on the distribution of ϕ -features and their interaction with complementizer agreement.

1 Introduction

This paper investigates island effects in two African languages, Asante Twi (Kwa, Ghana) and Limbum (Grassfields, Cameroon). Ever since Ross' (1967) seminal dissertation islands have played a major role in syntactic theorizing. Essentially, islands are syntactic configurations that do not allow or at least considerably degrade (\overline{A} -)movement dependencies between a gap that is located within the island domain and its filler, which is located outside of this domain. One commonly distinguishes strong islands, which do not allow any extraction, from weak islands, which allow the extraction of some phrases but not others. Subsequent decades of work on the topic have refined the view of islands and led to a more nuanced picture of the empirical landscape. One consequence is that while island effects can be observed across a variety of different languages they also show some degree of variation such that they are attenuated or even completely absent depending on properties of the island configuration itself (finiteness,

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type of island, definiteness), the syntactic dependency (topicalization, wh-movement, focus), or properties of the affected element (argument status, specificity, category).

Of particular interest for this paper are two general observations. The first one is that strong islands may allow restricted extractions after all. Given the right conditions (e.g. with regard to tense, Chomsky 1986, Manzini 1992, and definiteness, Fiengo & Higginbotham 1981, Manzini 1992, Postal 1998), strong (or absolute) islands may allow a nominal gap. Weak (or selective) islands, on the other hand, allow nominal as well as PP gaps under the same conditions (Cinque 1990). The set of strong (absolute) islands typically comprises at least complex NPs (with a complement clause or a relative clause), adjuncts, subjects, and coordinate structures. Embedded *wh*-clauses constitute the classical weak island but negatives and factives as well as extraposed constituents may also induce a weak island. Thus, while *wh*-fronting of a nominal is possible from an untensed adjunct (1a) as well as an embedded interrogative clause (2a), extraction of the PP is only accepted from the interrogative (2b) but not from the adjunct (1b).¹

- (1) Extractions from strong adjunct island (Szabolcsi & Lohndal 2017: 4)
 - a. [DP Which topic]₁ did you leave [adjunct without talking about _____]?
 - b. *[PP About which topic]1 did you leave [adjunct without talking ____1]?
- (2) Extractions from weak wh-island (Szabolcsi & Lohndal 2017: 4)
 - a. $[_{DP}$ Which topic $]_1$ did John ask $[_{CP}$ whether to talk about $__1$]?
 - b. $%[_{PP}$ About which topic]₁ did John ask [_{CP} whether to talk _____]?

One influential treatment of this dichotomy is due to Cinque (1990). He argues that the DP gap in strong islands is not a movement trace but rather a silent resumptive pronoun *pro* that is bound by the "displaced" element, which is base generated in its displaced position (see Chomsky 1977, Borer 1984, Sells 1987, McCloskey 1990 for base-generation plus binding approaches to overt resumptive pronouns). The escape from an island in (1a) is therefore only apparent because actual syntactic movement is not involved in the derivation of this structure. Since no empty resumptive element exists for PPs, such a derivation circumventing the island is not available in (1b). Under this view, the variability in extraction possibilities from strong islands (DP vs. PP) is not attributed to a variability of the island constraints themselves but rather to an independent property of the displaced element (existence of *pro* for DPs but not PPs). Example (1a) thus constitutes a "surface island violation" in Phillips's (2013*a*, 2013*b*) terminology. The variability in extraction possibilities from weak islands under this approach has a different source and may well be attributed to an underlying variability in the syntactic constraints themselves. That is, the extractions from weak islands as in (2) are "deep" island violations (Phillips 2013*a*,*b*).

The second general observation relevant for the present paper is that overt resumptive pronouns in some languages alleviate an expected island violation (Borer 1984, Koopman 1982, 1984, 2000, Chomsky 1986, McCloskey 1990, Shlonsky 1992, Aoun & Choueiri 2000, Korsah & Murphy 2020, Keupdjio 2020, Scott 2021). For a subset of these languages, this effect has been argued to be due to the derivation of resumptive pronouns more generally: While a gap is created by syntactic movement of the displaced constituent, a resumptive pronoun involves base-generation and binding (Borer 1984, Chomsky 1977, Sells 1987, McCloskey 1990, 2006, Rouveret 2011; also see the discussion in Korsah & Murphy 2024) The amelioration of the island is therefore only apparent since a violation is never actually induced, that is, there is no repair because nothing is broken. This entails that resumption dependencies in addition to be-

¹The '%' sign indicates that not all English native speakers accept this sentence.

ing insensitive to islands should also not exhibit other properties of movement. Nevertheless, in some languages, resumptive pronouns do behave just like movement gaps (Engdahl 1985, Koopman 1982, 1984, 2000, Aoun et al. 2001, Sichel 2014, Korsah & Murphy 2020, 2024, Alexopoulou 2006, Zaenen et al. 1981, Keupdjio 2020; see Salzmann 2017 for a recent overview).² In cases where such resumptive pronouns still ameliorate island violations this has been taken to be due to their phonological overtness as compared to a silent gap, that is, phonological overtness repairs (possibly as a Last Resort) an otherwise illicit output (Shlonsky 1992, Pesetsky 1998, Perlmutter 1972, Kandybowicz 2008). In turn, the island restriction then has to take the form of a PF-requirement (cf. Perlmutter 1972, Pesetsky 1998, Merchant 2001, Lasnik 2001, Hornstein et al. 2007, Boeckx 2012, Griffiths & Lipták 2014) rather than a constraint on syntactic operations/configurations per se (though see Boeckx 2003, Müller 2014, Klein 2017 for accounts of island circumvention by resumption in narrow syntax).

The two African languages discussed in this paper, Asante Twi and Limbum, exhibit a pattern of island-sensitivity that is very similar to (1), that is, they allow \overline{A} -extraction from strong island configurations for nominal extractess but not prepositional or verbal ones. In contrast to the English data above, however, the islands do not have to be tenseless. Both languages also show overt grammatical resumption in at least some contexts. In Asante Twi, NPs/DPs may freely undergo A-extraction from what are commonly held to be strong island configurations - complex NPs with a complement clause, complex NPs with a relative clause, adjuncts, and subjects - whereas PP- and also VP-extraction triggers an island effect (Saah 1994, Korsah 2017, Korsah & Murphy 2020, 2024, Hein 2017, 2020). Korsah & Murphy (2020, 2024) argue that all DP-extraction leaves a resumptive pronoun which terminates the \overline{A} -movement dependency. The resumptive pronouns are overt for animate DPs. The gap that appears with extraction of inanimate object DPs is explained as the result of a PF-deletion rule. The island-circumventing nature of resumptive pronouns is accounted for by treating islands as PF-constraints (Perlmutter 1972, Pesetsky 1998, Merchant 2001, Lasnik 2001, Hornstein et al. 2007, Boeckx 2012, Griffiths & Lipták 2014, Mendes 2020, Mendes & Kandybowicz 2023) which are evaluated derivationally prior to the PF-deletion of the inanimate resumptives (an instance of *counterbleeding*). PPs and VPs do not leave resumptive pronouns and their extraction from an island therefore leads to ungrammaticality. However, underminig this approach, Hein & Georgi (2021) show that some non-referential nouns do not incur island violations either, despite not leaving a resumptive pronoun.³ As suggested by Hein & Georgi (2021), it therefore seems as though the islands are selectively porous for elements whose lexical head is of the category noun while they are opaque for the extraction of prepositional or verbal constituents (though see Korsah & Murphy 2024 for potential issues with this and a tentative argument that these non-referential noun types do leave an obligatorily PF-deleted resumptive pronoun after all).

Based on novel hitherto unpublished data, I show that islands in Limbum, a Grassfields Bantu language, exhibit a strikingly similar category-sensitivity: NP/DP-elements may freely undergo \overline{A} -extraction from complex NPs with complement clauses, complex NPs with relative clauses and adjunct clauses while movement of PP- and VP-elements is blocked. Like in Asante Twi, an overt resumptive pronoun in the tail of an \overline{A} -dependency is obligatory for

²During the past 20 years there has been a growing number of work arguing that a single language may also show both kinds of resumptive pronouns, those derived by base-generation and those derived by movement (Scott 2021, Sichel 2014, Aoun et al. 2001, Alexandre 2012, Agüero-Bautista 2001, Bianchi 2004, Panitz 2014, Yip & Ahenkorah 2023, Georgi & Amaechi 2023, 2020).

³This is even more noteworthy since it has been observed for weak islands that non-referential nouns generally tend to be sensitive to them even when referential ones are not (Ross 1984, Comorovski 1989, Cinque 1990, Rizzi 1990, Obenauer 1992, Kiss 1993).

subjects and possible for objects. However, the ocurrence of the latter is restricted to displaced bare nouns if they are interpreted as specific. And even then, the object resumptive is merely an option besides a gap. An explanation of the selective island-sensitivity in terms of deletion of underlying resumptives parallel to that of Korsah & Murphy (2020, 2024) for Asante Twi therefore seems implausible since the necessary PF-deletion rule would have to target the unnatural class of all resumptives except those with a specific bare noun antecedent. Again, an account of the observed pattern of island-insensitivity as due to a local PF-requirement on the pronunciation of the tail of \overline{A} -movement seems insufficient. Rather, it appears that \overline{A} extraction from islands is directly sensitive to the category of the affected element, blocking PP- and VP-movement but allowing NP/DP-movement.

The current paper therefore contributes to a growing body of work on islands in African languages that shows that (at least some) would-be island configurations are consistently permeable for \overline{A} -extraction (of at least some types of elements) (cf. Schurr et al. 2024 on Shupamem, Smith 2024 on Mende, Korsah & Murphy 2020, 2024 on Akan, Keupdjio 2020 on Medumba, Gould & Scott 2019, Scott 2021 on Swahili, Georgi & Amaechi 2020 on Igbo). While the similarity of the pattern of island escape in Asante Twi and Limbum makes a unified approach seem desirable, no attempt at such an approach will be undertaken here. For Asante Twi, an account that treats islands as PF-constraints that can interact with PF-deletion of underlying resumptive pronouns (Korsah & Murphy 2020) cannot be excluded in light of the new arguments presented in Korsah & Murphy (2024). For Limbum, however, such an approach seems unreasonable. Building on the pattern of complementizer agreement in the language, I will therefore develop an account of the selective behaviour of islands that exploits the presence of ϕ -features on nominals and their absence on prepositional and verbal elements.⁴ Moreover, concerning the displacement of nominal elements I will restrict myself to the displacement of objects.

The remainder of the paper is structured as follows. Section 2 is dedicated to escape from islands in Asante Twi. It summarizes Korsah & Murphy (2020) introducing the relevant construction in section 2.1 and presenting arguments for its \overline{A} -nature in section 2.2. The selective island-sensitivity and how resumption can repair island violations is discussed in section 2.3. Section 2.4 presents Hein & Georgi's (2021) work on the island-insensitivity of noun types that do not leave resumptive pronouns upon extraction as well as Korsah & Murphy's (2024) recent treatment of it. In section 3, I discuss the island situation in Limbum. Section 3.1 introduces the \dot{a} -focus construction in Limbum and section 3.2 provides some arguments that it involves \overline{A} -movement. The selective island-sensitivity of this movement is treated in section 3.3 while I argue that repair by resumption is implausible in section 3.4. A tentative proposal as to how the category-sensitivity of islands in Limbum can be accounted for is presented in section 4. Section 5 concludes the paper.

2 Escaping islands in Asante Twi

2.1 The focus construction in Twi

Asante Twi is a dialect of Akan, a Kwa language (Niger-Congo) spoken in Ghana (Dolphyne & Kropp Dakubu 1988, Kropp Dakubu 2009). The language's basic word order in a neutral declarative clause can be identified as SVO. Adverbs generally have to appear in the clause-final position (3).

⁴I am grateful to a referee for the suggestion to make use of this difference.

 (3) Asante Twi neutral declarative clause Kofi á-si dán ɛnora.
 Kofi PRF-build house yesterday 'Kofi has built a house yesterday.'

The language has an *ex-situ* focus strategy (encoding contrastive focus) in which a constituent appears in the left periphery of the clause followed by the focus marker *na* (4). This construction has received considerable attention in previous literature (see Boadi 1974, Saah 1988, Ameka 1992, Amfo 2010, Hein 2017, Korsah & Murphy 2020, Ermisch 2006, 2007, Ofori 2011, Pfeil et al. 2015, Genzel & Kügler 2010).

(4) Asante Twi object focus (Korsah & Murphy 2020: 831) Bayérέ₁ na Kofi kítá <u>1</u>. yam Foc Kofi hold
'It is yam that Kofi is holding.'

It is also used to form *ex-situ* wh-questions like (5).

(5) Asante Twi object question (Korsah & Murphy 2020: 845)
Déén₁ na Yaw pé ____1?
what FOC Yaw like
'What does Yaw like?'

Generally, focus of an animate object requires the presence of a resumptive pronoun in the base position (6a). Inanimate object focus seems to force a gap in the base position of the object while a resumptive pronoun is ungrammatical (6b) (Saah 1992, 1994, Saah & Goodluck 1995).

- (6) Animate vs. inanimate object focus (Korsah & Murphy 2020: 845)
 - a. Hwáń₁ na Yaw pć $*(no_1)$? who FOC Yaw like 3sG.o 'Who does Yaw like?'
 - b. Dé ϵn_1 na Yaw p ϵ (*no₁)? what FOC Yaw like 3sg.o 'What does Yaw like?'

However, Korsah (2017), Korsah & Murphy (2020, 2024) argue that the gap in sentences like (6b) is actually a silent resumptive pronoun. There is a general rule in Akan that forces inanimate object pronouns to be phonetically unrealized (Riis 1854, Christaller 1875/1964, Osam 1996) as exemplified in (7).

- (7) *Pro-drop of inanimate objects* (Osam 1996: 160)
 - a. Kofi bε-ton [_{DP} dua no]. Kofi FUT-sell tree DEF 'Kofi will sell the tree.'
 - b. Kofi bε-tən { ___ / *no }. Kofi FUT-sell 3sg.o
 'Kofi will sell it.'

Overt inanimate object pronouns, however, do exceptionally surface in three contexts, namely in the presence of clause-final adverbs (8a) (Saah 1994), with change-of-state verbs (8b) (Boadi

1971, Osam 1996), and with secondary predicates (8c) (Korsah 2017).

- (8) *Contexts for inanimate pronoun realization* (Korsah & Murphy 2020: 845–847)
 - a. Kofi bε-tən *(no) əkyena. Kofi FUT-sell 3sg.o tomorrow 'Kofi will sell it (e.g. the tree) tomorrow.'
 - b. Kofi bu-u *(no).
 Kofi break-рэт Ззб.овј
 'Kofi broke it (e.g. the chair).'
 - c. Kuukua té [_{SC} *(no) mónó]. Kuukua pluck 3sG.o fresh 'Kuukua plucks it (e.g. the flower) fresh.'

Korsah & Murphy observe that in the same three contexts the expected gap in the base position of a *na*-focussed object is replaced by a resumptive pronoun. Thus, while there is a gap in the absence of a clause-final adverb like *anɔpá* 'in the morning' (9a) a resumptive pronoun is used when it is present (9b).

(9) *Resumptive pronoun with clause-final adverb* (Korsah & Murphy 2020: 846)

- a. [Aduane nó]₁ na Kofi p \acute{e} (*no₁). food DEF FOC Kofi like 3sG.0 'It's the food that Kofi likes.'
- b. [Aduane nó]₁ na Kofí pé $*(no_1)$ anopá. food DEF FOC Kofi like 3sG.0 morning 'It's the food that Kofi likes in the morning.'

Similarly, there is a gap if the object of a regular predicate is focussed (10a) but a resumptive pronoun if it is the object of a change-of-state verb (10b).

- (10) *Resumptive pronoun with change-of-state verb* (Korsah & Murphy 2020: 846)
 - a. [Akonwa nó]₁ na Kofi kŕá-a $\hat{\epsilon}$ (*no₁). chair DEF FOC Kofi import-PST 3sG.O 'It's the chair that Kofi imported.'
 - b. [Akonwa nó]₁ na Kofi bú-u *(no₁).
 chair DEF FOC Kofi break-PST 3sG.0
 'It's the chair that Kofi broke.'

Again, while we observe a gap in the absence of a secondary predicate (9a) its presence requires an overt resumptive (11).

(11) Resumptive pronoun with secondary predicate (Korsah & Murphy 2020: 847) [Aduane nó]₁ na Kofí pé [$_{SC}$ *(no₁) hyehyééhyé]. food DEF FOC Kofi like 3sG.0 very.hot 'It's the food that Kofi likes very hot.'

They therefore contend that the apparent gap is the result of the inanimate pro-drop rule applying to an underlying resumptive pronoun.

2.2 Evidence for movement in Asante Twi

Nonetheless, Korsah & Murphy (2020) (and also Korsah & Murphy 2024) show that (overt and covert) resumptives behave like gaps for the purposes of several movement diagnostics. A first one is reconstruction of the *ex-situ* phrase into the position of the resumptive for binding. As shown in (12a), in a non-movement configuration, Asante Twi shows Principle C effects, where an R-expression must not be bound by a c-commanding pronoun. These effects pertain even when the phrase containing the offending R-expression is displaced (12b). This indicates that the relevant phrase is reconstructed into the position of the resumptive pronoun.

- (12) *Reconstruction for Principle C* (Korsah & Murphy 2024: 15)
 - a. ${}^{*}\mathfrak{I}_{i}$ -p \mathfrak{E} [DP Kofi_i mífónírí yí]. 3sg-like Kofi picture this 'He_i likes the picture of Kofi_i.'
 - b. *[$_{DP}$ Kofi_i mdónírí yí]₁ na Ám[!]má nímí [$_{CP}$ sɛ $_{i}$ -pɛ́ no₁ paa]. Kofi picture this FOC Ama think that 3sG-like 3sG really 'It's this picture of Kofi_i that Ama thinks he_i really likes.'

A parallel case showing reconstruction for Principle A involving the anaphor $h\dot{o}$ (cf. Saah 1989) is provided in Korsah & Murphy (2020: 849).

In similar fashion, a phrase that contains a variable which is bound by a quantifier can be focussed with a resumptive in its base position (13), even across a clause boundary (cf. Schneider-Zioga 2009). The grammaticality of such examples suggests that the *ex-situ* object reconstructs into the position of the resumptive (cf. Aoun et al. 2001, Sichel 2014) which in turn indicates that even long-distance focus involves syntactic movement.

(13) Reconstruction for variable binding (Korsah & Murphy 2020: 850) $[_{DP} Ne_i$ -máńfóś yie-yś hó $]_1$ na Kofi nim $[_{CP} s \varepsilon abán biárá_i dwéné Poss-people well-be self Foc Kofi know that government every think no₁ dáá].$ 35G.0 every.day'It's the well-being of its_i people that Kofi knows that every_i government thinks about every day.'

A further diagnostic employed by Korsah & Murphy (2020)are weak crossover effects (e.g. Postal 1971, Koopman & Sportiche 1982, Lasnik & Stowell 1991). They provide the example in (14), where the focussed *wh*-element $hw\acute{a}\acute{n}$ 'who' cannot be coreferential with the possessive embedded in the subject despite the fact that the resumptive in the former's base position is not c-commanded by the latter.

(14) Weak Crossover in Asante Twi (Korsah & Murphy 2020: 851)
??Hwáń_i na né_i-núá tán nó_i (nó) ?
who FOC POSS.3SG-brother hate 3SG.0 CD
'Who_i does his_i brother hate?'

Since such effects are also observed in languages like Vata, where resumptives are islandsensitive and have therefore been argued to involve movement (Koopman & Sportiche 1982), but are absent in languages like Irish, where resumptives are taken to be base generated and \overline{A} -bound (McCloskey 2011), Korsah & Murphy take (14) as further evidence for the resumptive being generated by movement. However, in their recent paper (Korsah & Murphy 2024: § 3.4), they revisit the grammaticality status of (14) and, following recent arguments in Hewett (2023), relativize the relevance of cross-over effects as a diagnostic for movement in Asante Twi.

Yet another phenomenon for which resumptives behave like movement gaps is reconstruction for scope. Thus, while the exisential necessarily scopes over the universal in (15a), Korsah & Murphy take the availability of a pair-list answer to (15b) to indicate that the wh-element reconstructs into the base position of the resumptive (e.g. Agüero-Bautista 2001, Panitz 2014).

- (15) Reconstruction for scope in Twi (Korsah & Murphy 2020: 852)
 - a. Obi ka-a [_{CP} sέ abofrá bíárá do Kofi]. someone say-PST that child every love Kofi 'Someone said that every child loves Kofi.'
 - b. Hwáń₁ na Kofi ká-a [_{CP} sế abofrá biárá do no₁]? who Foc Kofi say-PST that child every love 3sG.o 'Who did Kofi say that every child loves?' $(\forall > wh, wh > \forall)$

 $(*\forall > \exists, \exists > \forall)$

A final and pivotal observation of their paper is that there is a tonal reflex associated with successive-cyclic \overline{A} -movement in which lexical low tones on all verbs crossed by the dependency are overwritten with high tones. This process of high tone overwriting is active in the *na*-focus construction independent of whether there is an apparent gap, i.e. covert resumptive (16), or an overt resumptive present in the base position (17).

- (16) *Tonal overwriting in focus construction with gap* (Korsah & Murphy 2020: 834)
 - a. Kofí kaé sε Ám'má kita bayéré. Kofi remember that Ama hold yam 'Kofi remembers that Ama is holding a yam.'
 b. Déén₁ na Kofí káé sε Ám'má kítá ____1?
 - what FOC Kofi remember that Ama hold 'What does Kofi remember that Ama is holding?'
- (17) Tonal overwriting in focus construction with resumptive (Korsah & Murphy 2020: 834)
 - a. Kwame **nim** s€ Ám[!]má **hu**-u Efua. Kwame knows that Ama see-PST Efua 'Kwame knows that Ama saw Efua.'
 - b. Hwáń₁ na Kwame ním sε Ám¹má hú-u no₁?
 who FOC Kwame knows that Ama see-PST 3sG.0
 'Who does Kwame know that Ama saw?'

As they point out, no such tonal effect is observed in the parallel topic construction, where the topic phrase appears clause-initially before a topic marker de_{ϵ} while a resumptive occurs in the regular argument position (18b). Importantly, this construction also does not pass other movement diagnostics.⁵

⁵The occurrence of resumptive pronouns in the topic construction, which arguably involves base generation and binding (see Korsah & Murphy 2020: § 3.4), shows that Asante Twi lines up with a few other languages for which it has been argued that resumptive pronouns can occur in both base-generation and movement dependencies (Agüero-Bautista 2001, Aoun et al. 2001, Bianchi 2004, Alexandre 2012, Sichel 2014, Panitz 2014, Scott 2021, Georgi & Amaechi 2023; see also Yip & Ahenkorah 2023 for subject resumptives in Asante Twi).

- (18) No tonal reflex in topic construction (Marfo 2005: 110)
 - a. $\hat{A}^{!}m\dot{a}_{1}$ na Kofi **ré-bóá** nó₁. Ama FOC Kofi PROG-help 3sg.o 'It is Ama who Kofi is helping.'
 - b. Á¹má₁ déč Kofi re-boá / *ré-bóá nó₁.
 Ama τορ Kofi prog-help prog-help 3sg.o
 'As for Ama, Kofi is helping her.'

Based on this evidence, Korsah & Murphy (2020) conclude, and Korsah & Murphy (2024) reaffirm, that resumptives in Asante Twi can appear at the bottom of an \overline{A} -movement dependency, which directly explains their behaviour with respect to the abovementioned diagnostics (see Zaenen et al. 1981, Borer 1984, Koopman 1984, Engdahl 1985, Pesetsky 1998, Aoun et al. 2001, Boeckx 2003, Alexopoulou 2006, Sichel 2014, Salzmann 2017, Klein 2017, Scott 2021, Georgi & Amaechi 2023 and others on resumptives with \overline{A} -movement).

2.3 Selective island-sensitivity and repair by resumption in Asante Twi

There is one obvious exception to this pattern; both overt and covert resumption seems to be insensitive to islands, as shown on the basis of the complex NP island (19a) and (20a), and the wh-island (19b) and (20b).

(19) Island insensitivity with resumptives (Saah 1994: 172, Korsah 2017: 117)

- a. Hwáń₁ na wo-hú-u [_{DP} onipa ko [_{CP} áa ɔ-bɔ́-ɔ nó₁ nó]]? who foc 2sg.s-see-pst person def rel 3sg.s-hit-pst 3sg.o cd 'Who did you see the person who hit?'
- b. $\hat{A}^{!}$ má₁ na Kofi bísá-a [_{CP} sé hwán₂ na ε_2 -dó nó₁ nó]. Ama FOC Kofi ask-PST that who FOC 3sg.s-love 3sg.o CD 'It is Ama who Kofi asked who loves.'
- (20) Island insensitivity with gaps (Saah 1994: 172,197)
 - a. Déén na wo-nímí [_{DP} onipa ko [_{CP} áa ɔ-tɔ́-ɔ-é ____1 nó]]? what FOC 2sG.S-know person DEF REL 3SG.S-buy-PST-YE CD 'What do you know the person that bought?'
 - b. $Deen_1$ na Mary bisa-a [$_{CP}$ sé hwán na $_{2}$ -ye-e _____1 nó]. what FOC Mary ask-PST that who FOC 3sg.s-make-PST CD 'What did Mary ask who made?'

This seems to contradict the view that the *na*-focus construction involves movement. However, Korsah & Murphy (2020) draw attention to the fact that island effects emerge when the extracted phrase has a different category from DP or NP, and therefore lacks a resumptive pronoun. Thus, while focus of a VP is generally possible in Asante Twi (21a) it is ungrammatical if the VP is focussed from inside an island configuration (21b) (see also Hein 2017, 2020). Note that a resumptive is impossible in these sentences.

- (21) Island effects emerge with VP focus (Hein 2017: 38)
 - a. [_{VP} Dán sí]-é na Ámá káa sé Kofí á-y5 {___VP / *n6} anopá. house build-NMLZ FOC Ama say.PST that Kofi PFV-do 3sG.O morning 'Ama said that Kofi BUILT A HOUSE in the morning (not bought a car).'

Likewise, focalization of a PP, while possible in the language (22a), is ungrammatical from inside an island configuration (22b).

- (22) Island effect emerge with PP focus (Korsah & Murphy 2020: 847f.)
 - a. [PP Akonwá nó mú] na Kofí dá {___PP / *hɔ} anɔpá. chair the in Foc Kofi lie there morning 'Kofi is lying IN THE CHAIR in the morning.'
 - b. *[PP Akonwá nó mú] na Ama ním [DP neá ntí [CP áa Kofi dá __PP]].
 chair the in FOC Ama know thing because.of REL Kofi lie
 'Ama knows the reason why Kofi lies IN THE CHAIR.'

Moreover, nominal focus from inside an island behaves just like nominal focus from nonisland configurations with respect to some of the movement diagnostics mentioned above (cf. the discussion of movement properties with resumptives in islands in Korsah & Murphy 2024). Thus, there is reconstruction for Principle C into a complex NP island as shown in (23) and reconstruction for variable binding into a complex NP island as shown in (24), which is the island version of (13).

- (23) Reconstruction for Principle C into complex NP island (Korsah & Murphy 2024: 15) $\begin{bmatrix} DP & Am^{l}ma_{i} & aduane no \end{bmatrix}_{1}$ na m-á-té $\begin{bmatrix} DP & atetesém bi \\ CP & se & 5_{*i/j}-di \end{bmatrix}$ Ama food DEF FOC 1SG.S-PERF-hear rumour INDEF that 3SG.S-eat no₁ dáá $\end{bmatrix}$ 3SG.O every.day 'It's Ama's_i food that I have heard a rumour that s/he_{*i/j} eats every day.'
- *Reconstruction for variable binding into complex NP island* (Korsah & Murphy 2020: 859) (24)[DP atésém bí $[_{DP} Ne_i$ -mánfóź yíe-yɔ́ hó]₁ na m-á-té $\left[CP s \epsilon \right]$ 3sg.poss-people well-be self FOC 1SG.S-PERF-hear rumour INDEF that abán $biárá_i$ dwéné no₁ dáá 11. government every think 3sg.o every.day 'It's the well-being of its_i people that I have heard a rumour that every_i government thinks about every day.'

In addition, nominal focus from inside a complex NP island exhibits weak crossover effects as shown in (25), which is the island version of (14). Though keep in mind that this diagnostic has its problems (cf. Korsah & Murphy 2024: §3.4).

(25) Weak crossover effects with focus from complex NP island (Korsah & Murphy 2020: 859)
 ??Hwáń_i na wo-á-té [_{DP} atésém bí [_{CP} sε né_i-núá tán nó_i nó who FOC 2sG.S-PERF-hear rumour INDEF that 3sG.POSS-sibling hate 3sG.O CD]]?

'Who_i have you heard the rumour that his_i/her_i sibling hates (him_i/her_i)?'

Last, as with focus from non-island configurations (17), high tone overwriting is observed also in nominal focus from inside an island. This is shown for the complex NP island in (26b).

- (26) Tonal movement reflex with focus from inside a complex NP island (Korsah & Murphy 2024: 13)
 - a. Me-hu-u [_{DP} onipa ko [_{CP} áa ɔ-bɔ-ɔ Kofi nó]]. 1sg.s-see-pst person def Rel 3sg.s-hit-pst Kofi cd 'I saw the person who hit Kofi.'
 - b. Hwáń₁ na wo-hú-u [_{DP} onípá ko [_{CP} áa ɔ-bɔ́-ɔ nó₁ nó]]? who foc 2sg-see-pst person def rel 3sg.s-hit-pst 3sg.o cd 'Who did you see the person who hit?'

Taken together, as Korsah & Murphy (2020, 2024) point out, the evidence suggests that the *na*-focus construction in Asante Twi involves \overline{A} -movement. An account in terms of base-generation (Saah 1994) seems unfit.

What this leaves to explain is why nominal focus can circumvent island violations while verbal and PP focus cannot. Recall that the gap that is observed when an inanimate nominal is focussed is only superficial. It is the result of a general PF rule enforcing the zero spellout of inanimate object pronouns that applies to an underlying resumptive pronoun. This means that both animate and inanimate object focus constructions have a resumptive pronoun present in the base position of the object in the syntax. It has long been observed that resumptive pronouns may alleviate island violations (Aoun & Choueiri 2000, Borer 1984, Keupdjio 2020, Chomsky 1986, McCloskey 1990, Kroch 1981, McDaniel & Cowart 1999, Ackerman et al. 2018). As Korsah & Murphy (2020, 2024) argue, this is also the case in Asante Twi. It is the existence of a resumptive pronoun for nominal elements that allows them to circumvent island violations when undergoing focalization. In turn, the absence of such a resumptive pronoun for nominal elements like V(P)s or PPs prevents them from being focussed out of an island configuration.

In particular, Korsah & Murphy (2020) follow a strand of research that goes back to Perlmutter (1972) and takes the perspective that islands are representational constraints at PF which militate against certain linguistic representations that have a trace/gap in the base position (see Pesetsky 1998, Merchant 2001, Lasnik 2001, Hornstein et al. 2007, Boeckx 2012, Griffiths & Lipták 2014). These constraints can be satisfied by avoiding the offending representation. One way to achieve this is by replacing the trace/gap with a resumptive pronoun.⁶ They argue that this immediately explains the island insensitivity of animate object focus (with overt resumption), if this replacement takes place prior to the evaluation of island constraints. The island-obviating effect of the covert resumptives with inanimate objects is then accounted for by PF-ordering such that the obligatory PF pro-drop rule for inanimate pronouns only applies after the island constraints have been checked. The required order of application between the relevant operations is given in (27).

(27) Order of application of PF-operations in Asante Twi
 Trace-to-Pronoun Conversion ≺ Island evaluation ≺ Inanimate pro-drop

At least the examples with a surface gap can then be classified as Phillips (2013a,b)'s surface variation islands because while it seems on the surface that extraction has left a gap inside

⁶In their implementation, the base position of a movement dependency in syntax is actually filled by a copy of the extracted element (Chomsky 1995). This lowest copy undergoes a PF process of *Pronoun conversion* (akin to the LF process of *Trace Conversion*, Fox 1999, 2002) which replaces the copy with a corresponding pronoun.

the island configuration, there actually is a resumptive pronoun whose presence at the time when the island constraint was checked voided a violation.

2.4 Island-insensitivity without resumption in Asante Twi

While the PF-deletion plus order of application account nicely explains the discussed island insensitivities, it does not straightforwardly extend to some recent observations that certain nominal elements can escape islands despite not leaving a resumptive pronoun. In a recent paper, Hein & Georgi (2021) note that almost all of the sentences used in the discussion of resumptive pronouns, gaps and their interaction with island contexts involve extraction of wh-elements, proper names, definite noun phrases with an overt determiner or bare nouns which are interpreted as specific indefinites. They show that several other noun types do not fit the pattern described in the previous section, where focussed animate nouns leave an overt resumptive pronoun and inanimate ones result in a surface gap that arises by PF-deletion of an underlying resumptive pronoun. Rather, extraction of these noun types always results in a gap even if they are animate, in which case the deletion rule should be inapplicable, or inanimate appearing in the deletion-suspending contexts.

First, nominal objects that are part of an idiom never show resumption. Recall that the PF rule that deletes inanimate (resumptive) pronouns in object position can be suspended in the presence of a clause final adjunct (see (8) and (9)). In this case, the underlying resumptive pronoun surfaces. Therefore, we would expect an overt resumptive pronoun to appear in the object position of (28b). However, on the idiomatic reading only a gap is possible whereas the presence of an overt resumptive pronoun forces the literal reading (28c).

- (28) *No resumption with idiomatic nouns in object position* (Korsah & Murphy 2020: 855; Hein & Georgi 2021: 226)
 - a. D-gya-a ne-nán [PP WD dán nó mú]. 3SG.S-leave-PST 3SG.POSS-leg LOC room DEF inside Idiomatic: 'He defecated in the room.' Literal: 'He left his leg in the room.'
 - b. Ne-nán₁ na \Im -gyá ϵ _____1 [PP w \eth dán nó mú]. his-leg FOC 3SG.s-leave.PST LOC room the inside Idiomatic: 'It's defecating that he did in the room.' #Literal: 'It's his leg that he left in the room.'
 - c. Ne-nán₁ na \supset -gyá ϵ no₁ [PP w \supset dán nó mú]. his-leg FOC 3SG.S-leave.PST 3SG.O LOC room the inside #Idiomatic: 'It's defecating that he did in the room.' Literal: 'It's his leg that he left in the room.'

A further example using the idiom $b_0 n'ano twe dee$ 'to eat' (lit. 'to punch one's own mouth') is given in (29).

(29) No resumption with idiomatic nouns in object position (Hein & Georgi 2021: 226f.)⁷ Daabi. [N'ano twɛdeɛ]₁ na Kofi bɔ-ɔ { __1 / *no₁ } ɛnora. no 3sg.poss-mouth own Foc Kofi hit-Pst 3sg.o yesterday Idiomatic: 'No. Kofi ATE yesterday' (He did not punch the dog.) #Literal: 'No. He punched HIS OWN MOUTH yesterday.'

⁷As an anonymous reviewer points out, the high-tone reflex of movement on the verb b_{2} -2 seems to be absent in this example as well as example (31). This is due to the fact that tone information on these examples is missing in the source already, i.e. Hein & Georgi (2021).

Hein & Georgi (2021) take this to show that idiomatic noun phrases do not leave a resumptive pronoun when they undergo focus movement. A further noun type that behaves like this are predicative nominals such as *tíkyani* 'teacher' in the following example.

(30) No resumption with nominals in predicative use (Hein & Georgi 2021: 227) Tíkyani₁ na Kofi bé-yé {___1 / *nó₁} afe yí. teacher FOC Kofi FUT-be 3sG.O year this 'It is a teacher that Kofi will become this year.'

A resumptive pronoun in (30) is ungrammatical despite the fact that the extracted nominal is animate and there is a clause-final adverb. This strongly indicates that the gap is a true syntactic one.

A last type of noun that Hein & Georgi (2021) report to be incompatible with resumptive pronouns are non-specific indefinites. In the context provided for the elicitation of (31) the bare noun kyerekyereni 'teacher' is referring to some random teacher at a school. Although the sentence contains a final adverb *kane* 'first' and the extractee is animate, a resumptive pronoun is strongly dispreferred.

(31) No resumption with non-specific indefinites (Hein & Georgi 2021: 227)
Daabi. okyer@kyer@ni1 na me-be-bisa { __1 / ??no1 } kane.
no teacher FOC 1SG.S-FUT-ask 3SG.O first
'No. I will ask A (RANDOM) TEACHER first.' (one of the many teachers around)

These three noun types – idiom parts, predicative nouns and non-specific indefinites – therefore arguably do not leave a resumptive pronoun in their base position upon extraction at any point in the derivation. Given the crucial role that syntactic resumptives play for Korsah & Murphy's (2020) explanation of the island-insensitivity of nominal object focus, this leads to the prediction that focalization of these noun types should be sensitive to islands just like V(P) and PP focus is. However, this prediction is not borne out. Like other nominals, these three noun types can freely be extracted from island configurations even thought they do not show any indication of resumption. This is illustrated in (32), where the nominal object in each case undergoes focus movement from inside a complex NP island leaving a true gap. As was the case in the non-island extractions above a resumptive pronoun is impossible even in the presence of a final adjunct.

(32) Island-insensitivity of nominal extraction without resumption (Hein & Georgi 2021)

- a. Ne-nán₁ na m-á-té [_{DP} atésém bí [_{CP} sé ɔ-gyáɛ { __1 / *nó₁} his-leg FOC 1sG.s-PFV-hear rumour a that 3sG.s-leave.PST 3sG.o wo dán nó mú]].
 LOC room the inside Id.: 'It's defecating that I have heard a rumour that he did in the room.'
 b. Tíkya₁ na m-á-té [_{DP} atésém nó [_{CP} sé Kofi bé-yé { __1 / *nó}]
- teacher FOC 1SG-PERF-hear rumour the that Kofi FUT-be 3SG.O afe yí]]. year this

'It is a teacher that I have heard the rumour that Kofi will become this year.'

c. Nnípa1 na wo-té-e [DP atésém nó [CP sé Kofi súró { _1 / *nó1 / PL.person FOC 2sG.s-hear-PST rumour the that Kofi fear 3sG.o
*won } páa]].
3PL.O really
'It's people that I have heard the rumour that Kofi really fears.'

This shows that nominals that leave a resumptive upon extraction are only a subset of the nominals that can be extracted from inside an island configuration (33). Therefore, whether a given constituent can or cannot undergo \overline{A} -movement from inside an island cannot depend upon whether it shows a resumptive in the base of the dependency or not (*pace* Korsah & Murphy 2020).

(33) Distribution of gaps vs. RPs and island-sensitivity (Hein & Georgi 2021: 234)

	$[+N]_{regular}$	[+N] _{special}	VP/PP
(c)overt RP	yes	no	no
island-sensitive	no	no	yes

It rather seems to be the case that the category of the extractee plays a direct role for its extractability and that the latter is independent of the issue of whether the extractee can leave a resumptive pronoun or not.

Concerning resumption, Hein & Georgi (2021) propose a partial copy deletion account (Pesetsky 1998, Landau 2006, van Urk 2018) that deletes the maximal projection of the lexical core of a moved phrase's lowest copy. This leads to full deletion and therefore a gap in case the moved phrase is a VP, PP, or – as Hein & Georgi (2021) argue is the underlying structure for the problematic non-referential noun types – an NP. For a DP, only its NP-complement is deleted and the stranded D-head is realized as a resumptive pronoun (cf. Postal 1969, Elbourne 2001, Jenks & Bi 2019). The lack of a D-layer of the non-resumptive noun types thus is the reason for their showing no resumption upon extraction. When it comes to island-sensitivity, Hein & Georgi (2021) suggest that islands are selectively transparent for \overline{A} -movement of elements with a 'nominal' core, but opaque for those without one, thereby deriving the split in island-sensitivity between DPs and NPs with such a core on the one side and VPs and PPs without such a core on the other.

In response to the empirical challenge posed by apparently non-resumptive noun types, (Korsah & Murphy 2024: 27–28) tentatively argue that there is a more general ban on overt pronouns that are co-indexed with such nouns. Some evidence for this comes from the obligatory absence of overt pronouns in anaphoric contexts when they refer back to predicative (34a) and non-specific indefinite (34b) though unambiguously animate nouns.

- (34) No overt pronouns with predicate and non-specific indefinite nominals (Korsah & Murphy 2024: 27)
 - a. Na Kwadwo p
ɛ sɛ ɔ-yɛ odusini_i, nanso ɔ-a-n-yɛ ?bi_i / ps
r Kwadwo want comp 3sg.s-fut.be herbalist but 3sg.s-perf-neg-be indef
*no_i / ___i . 3sg.o

'Kwadwo wanted to become a herbalist, but he did not become (one).'

b. Nípa_i na Kofi súró <u>i</u> [CP ésánesé ɔ-féré { <u>i</u> / *nó_i }] person Foc Kofi fear because 3sG.s-be.shy.of 3sG.o 'It's people that Kofi really fears because he is shy of (them).' They suggest that this might be accounted for by a second obligatory pro-drop rule (in addition to the one for inanimate object pronouns) that applies to underlyingly present pronouns for these noun types and unlike the latter is not suspended in the presence of a clause final adverb. As this rule arguable extends to resumptive pronouns, Korsah & Murphy (2024) conclude that the pattern observed by Hein & Georgi (2021) can presumably be reconciled with their approach. The underlyingly present resumptive pronoun for a non-referential noun is only deleted after the evaluation of island constraints at PF, thereby enabling an \overline{A} -movement dependency into an island that terminates in a surface gap.

It therefore seems that the empirical profile of selective island sensitivity in Asante Twi can be accounted for by treating islands as representational PF constraints that interact with the distribution of resumptive pronouns and pronoun deletion operations (Korsah & Murphy 2024), as well as by viewing them as directly category-sensitive locality domains (Hein & Georgi 2021).

From a more conceptual perspective, both approaches have their separate issues. While the approach in terms of PF-islands is reasonably well worked out it suffers from the more general question of why these PF constraints are as they are. In other words, why do they prohibit a configuration with a gap but not one with a resumptive pronoun? As a reviewer points out, there is a priori nothing wrong if they happened to be the reverse, militating against overt resumptives in island configurations. As for the approach that takes islands to be directly sensitive to category, the question is why exactly they are permeable to only nominal elements. In addition, there is not yet a properly formulated account of how these and only these elements can escape from them. While I cannot provide such an implementation for Asante Twi, in what follows, I will present a very similar pattern of island-sensitivity in the Grassfields Bantu language Limbum. For this pattern an approach in terms of PF-islands that are circumvented by underlying resumptive pronouns is far less well-supported than for Asante Twi. I will tentatively suggest that the selectivity of islands in Limbum is tied to ϕ -features, and provide an implementation of this in the grammar.

3 Escaping islands in Limbum

3.1 The focus construction in Limbum

A very similar case of apparent category-sensitivity of islands can be observed in the \dot{a} -focus construction in the understudied Grassfields Bantu language Limbum (Fransen 1995), which is spoken primarily in the Northwest Region of Cameroon. The data reported here, if not marked otherwise, stem from a number of elicitation sessions with one native speaker from Nkambe, Cameroon, over a period of several months between August 2018 and May 2019 and some additional elicitation work with the same speaker in August 2023.

The general word order of a neutral declarative clause in Limbum is SVO. Any tense and aspect markers precede the verb. Adverbs including the negation marker $k\dot{a}$? are restricted to the clause-final position. An example of such a clause is given in (35).

(35) Limbum neutral declarative clause
Njíŋwê fō à mū yē bō fō nìŋkòr.
woman DET SM PST2 see children DET yesterday
'The woman saw the children yesterday.'

The verb commonly appears in root form without any agreement affixes. However, in certain tenses and aspects a subject marker occurs before the TAM-morpheme that gives the impres-

sion of subject agreement (see Hein 2021 for a more detailed description of subject marking).

While (new information) focus is possible in situ (36), the language also comprises of a strategy that includes displacement of the focussed constituent to sentence-initial position where it is preceded by the focus marker \dot{a} and (optionally) followed by a particle $c\dot{i}$ (37).⁸ As briefly mentioned before, unlike in Asante Twi there is generally no resumption for displaced objects (with the exception of optional resumption for specific bare nominals as will be discussed in section 3.4).

- (36) Limbum in-situ object focus (Driemel & Nformi 2018: 18)
 - A: Wè bí kōnī ndá?
 2sg FUT1 meet who
 'Who will you meet?'
 - B: Mè bí kōnī Ngàlá.
 1sg FUT1 meet Ngala
 'I will meet NGALA.'
- (37) Limbum ex-situ object focus (Driemel & Nformi 2018: 18)
 - A: A $nd\dot{a}_1$ (cí) wè bí $k\bar{b}n\bar{n}$ _____1 à? FOC who CI 2SG FUT1 meet Q 'Who will you meet?'
 - B: À Ngàlá₁ (cí) mè bí $k\bar{\partial}n\bar{n}$ ____1. FOC Ngala CI 1SG FUT1 meet 'I will meet NGALA.'

The fact that the marker \dot{a} precedes the focussed constituent in conjunction with there being a following element may seem to suggest that the construction is a cleft, i.e. a biclausal structure where \dot{a} is the copula 'it is' and $c\dot{i}$ is the relative marker 'that'. Indeed, in her grammar of Limbum, one of the few published works on the language, Fransen (1995) analyses the \dot{a} -focus construction as a cleft. However, the speaker consulted here generally disagreed with several of the data in this grammar, pointing out either that they had an archaic appeal sounding somewhat old-fashioned or that they might belong to a different variety of the language. Furthermore, Becker et al. (2019) present several arguments for the monoclausality of this construction, that are based on the judgements of the same speaker as the ones presented in this paper. For details, the reader is referred to their work. Here, I merely want to briefly add to their argument about the $c\dot{i}$ -marker not being a relative pronoun. This is corroborated by data showing that the relative pronoun covaries with the head noun in number taking the form $v\check{i}$ in the plural (38a) whereas the element $c\dot{i}$ in the focus construction is invariant (38b).

- (i) A: Wè bí kōnī bá ndá?
 2sg FUT1 meet FOC who
 'Who (if not X) will you meet?'
 B: Mè bí kōnī bá Ngàlá.
 - 1sg FUT1 meet Foc Ngala 'It is Ngala whom I will meet.'

(Driemel & Nformi 2018: 18)

However, this strategy is used to express contrastivity/exhaustivity rather than new information (for details see Becker et al. 2019, Driemel & Nformi 2018). As I am concerned here in particular with displacement configurations, nothing more will be said about the *bá*-focus construction in this paper.

⁸There is yet another construction where the focussed constituent stays in situ but focus is marked by a preceding marker $b\dot{a}$ (i).

- (38) Relative pronoun but not cí covaries with head noun
 - a. ŋwè fɔ̃ rɨŋ bōmbáŋrò fɔ̃ { vɨ/*cí } njíŋwè fɔ̃ à mū yē nìŋkòr. man det know boys det rel.pl/ci woman det sm pst2 see yesterday 'The man knows the boys whom the woman saw yesterday.'
 - b. Á bōmbáŋrò fō { cí / *vɨ } njíŋwê fō à mū yē nìŋkòr.
 Foc boys DET CI REL.PL woman DET SM PST2 see yesterday
 'The woman saw THE BOYS yesterday.'

Thus, despite its appearance, the \dot{a} -focus construction does not show typical properties of a cleft. I will therefore adopt the view that the construction involves a monoclausal structure in which the focussed constituent is placed in the left periphery instead of its base position. In what follows, I will argue that it has indeed moved to this surface position rather than being base generated there.

3.2 Evidence for movement in Limbum

Like in Asante Twi, there are several movement diagnostics that indicate that the focussed constituent originates inside the clause. First of all, the \dot{a} -focus construction may be used to focus embedded objects, that is, it may apply across a finite clause boundary (39) which is one hallmark of \bar{A} -dependencies.⁹ While this might not in itself be a sufficient condition for movement, as there are other long-distance dependencies that are not created by movement, it surely is a necessary one.

(39) Long-distance focus
Á [DP njíŋwè fɔ]1 (cí) mè rɨŋ [CP mè-nē Nfor bí kɔnī __1].
FOC woman DET cí 1sG know 1sG-COMP Nfor FUT1 meet
'I know that Nfor will meet THE WOMAN.'

Second, we observe strong cross-over effects, i.e. a focussed nominal is reconstructed for Condition C (40).¹⁰

(40) Reconstruction for Condition C

a. Í_{*i/j} rɨŋ í-nē à cɨ ró Nfòr_i.
3sg.s know 3sg-comp 2sg prog search Nfor 'He_{*i/j} knows that you are searching for Nfor_i.'
b. Á Nfòr_i (cí) í_{*i/j} rɨŋ í-nē wè cɨ ró ____i.
Foc Nfor ci 3sg.s know 3sg-comp 2sg prog search 'He_{*i/j} knows that you are searching for NFOR_i.'

A third argument in favour of movement comes from reconstruction for variable binding. In (41a), the variable associated with the possessive marker zhi 'his' can be optionally bound in its base position by a c-commanding quantified noun phrase. This binding is unaffected by focus

⁹Note that the complementizer $n\bar{\epsilon}$ in (39) shows agreement (in the form of a prefix). As documented in Nformi (2018), the general pattern of complementizer agreement in the language is that the complementizer agrees with the matrix subject for person, number, and animacy in case there is no intervener (i.e. a direct object). This will be discussed in more detail in section 4.1.

¹⁰As an anonymous reviewer points out, reconstruction effects for Principle C have been found to be rather unstable in recent experimental work on English and German (for an overview, see Salzmann et al. 2023). If this instability turns out to be a cross-linguistic phenomenon, Principle C effects might not be a reliable diagnostic for movement after all.

fronting (41b) which indicates that the focussed phrase including the possessive reconstructs into its base position.

- (41) *Reconstruction for variable binding*
 - a. $[\eta w \grave{\epsilon} n s \grave{i} p]_x b \acute{k} \bar{\upsilon} n \bar{\imath} t \acute{a} \bar{a} z h \grave{i}_{x/y} \eta g w \acute{a}.$ man every FUT1 meet father 3sg.poss wife 'Every man_x will meet the father of his_{x/y} wife.'
 - b. Á [táā ŋgwá zh $_{x/y}$]₁ cí mè kwà?shí mè-nē [ŋwè ns $_{p}$]_x bí kōnī ____1. Foc father wife 3sg.poss ci 1sg think 1sg-comp man every FUT1 meet 'I think that every man_x will meet THE FATHER OF HIS_{x/y} WIFE.'

In addition, we find that there is reconstruction for relative quantifier scope. In the sentence in (42), the reading where the lower universal njinwe nsip outscopes the higher existential mbanru is available. This indicates that reconstruction of the existential into the base position of the object is possible. If it were not, one would expect the sentence to be judged odd which it is not. Example (43) shows that quantifier raising is clause-bound in Limbum (cf. May 1985, Larson & May 1990) and thus that the reading in (42) cannot be derived by raising the universal from the embedded clause across the existential in the matrix clause at LF.

- (42) Reconstruction for scope
 Á mbàŋrù₁ (cí) Shey à mū lā [_{CP} í-nē njíŋwè nsip à mū bzú _____1].
 FOC male CI Shey SM PST2 say 3SG-COMP woman every SM PST2 birth
 'Shey said that every woman gave birth to A SON.' (∀ > ∃, *∃ > ∀)
 (43) Quantifier raising is clause-bound
- (43) Quantifier raising is clause-bound ijwê-ryē?nì à mū la [_{CP} í-nĒ mū nsìp à mū cí bumi]. man-teach SM PST2 say 3SG-COMP child every SM PST2 PROG sleep 'A/Some teacher said that every child was sleeping.' $(\exists > \forall, *\forall > \exists)$

It has, however, been argued that reconstruction effects may also hold in base-generation dependencies (Guilliot & Malkawi 2009, Rouveret 2008, Moulton 2013) and therefore cannot consitute unequivocally decisive evidence for \overline{A} -movement. What is argued by the same authors is that a distinction between base-generation reconstruction and movement reconstruction is still possible. While the latter shows what is termed 'reconstruction conflicts' the former does not. A reconstruction conflict arises in clauses where the reconstructing XP is subject to two conflicting requirements. Consider the example in (44). The targeted reading is one where the quantifier *every student* binds the coindexed pronoun *he* and the R-expression *Bresnan* is coreferential with the pronoun *she*. In order to achieve this reading, the extracted XP must be able to reconstruct into a position below the quantifier but above the pronoun, that is, it must reconstruct into an intermediate position (Lebeaux 1991, Fox 1999, Legate 2003, Sauerland 2003). The grammaticality of (44a) attests that this is possible. In contrast, in (44b) there is no position in which both requirements could be satisfied simultaneously. The sentence (with the intended reading) is therefore ungrammatical.

(44) *Reconstruction conflict in English* (Lebeaux 1991)

- a. $[_{DP}$ Which paper that he_x gave to $Bresnan_y$ $]_1$ did every student_x think $[_{CP}$ t'_1 that she_y would like t_1]?
- b. *[DP Which paper that he_x gave to $Bresnan_y$]₁ did she_y think [CP t'_1 that every student_x would like t_1]?

Importantly, with reconstruction in base-generation dependencies, as is observable in French and Welsh resumption, this conflict is absent. That is, whether the necessary intermediate position exists or not has no influence on the grammaticality of the clauses. Rather, either both sentences are acceptable, as in French (45), or both are unacceptable, as in Welsh (46).

- (45) No reconstruction conflict in French (Panitz 2014: 18; citing Guilliot & Malkawi 2012)
 - a. $[_{DP}$ Quel résumé qu'íl_x a donné à Hamida_y]₁ est-ce que chaque étudiant_x which abstract that.he has given to Hamida Q that each student se demande [_{CP} t₁ si elle_y va le₁ corriger]? REFL asks if she goes it amend 'Which abstract that he_x gave to Hamida_y does each student_x wonder if she_y will amend it.'
 - b. $[_{DP}$ Quel résumé qu'íl_x a donné à Hamida_y]₁ est-ce qu'elle_y se which abstract that.he has given to Hamida Q that.she REFL demande [$_{CP}$ t'₁ si chaque étudiant_x va le₁ réviser]? asks if each student goes it revise 'Which abstract that he_x gave to Hamida_y does she_y wonder if each student_x will revise it.'
- (46) *No reconstruction conflict in Welsh* (Rouveret 2008)
 - a. *[DP barn yr athro ar $[ei_x mab]_y$]₁ y gŵyr pob mam_x [CP t'₁ y mae ef_y opinion the teacher on her son CI knows each mother CI is he yn ei_1 chuddio] PROG it conceal

'the teacher's opinion of $[her_x son]_y$ that each mother knows that he_y conceals'

b. *[DP barn yr athro ar [eix mab]y] y gŵyr efy [CP t1 y mae pob mamx opinion the teacher on her son CI knows he CI is each mother yn ei1 pharchu]
PROG it respect 'the teacher's opinion of [herx son]y that hey knows that each motherx respects'

While the occurrence of a gap in the Limbum focus examples suggests an analysis in terms of movement rather than base-generation, one might still propose that the gap is actually a silent resumptive pronoun in a base generation dependency (cf. Cinque 1990, Chomsky 1977, Borer 1984). However, reconstruction conflicts as in the English example (44) also occur in Limbum. Consider the pair of sentences in (47).

- (47) Reconstruction conflict in Limbum
 - a. Á $[_{DP} \eta k\bar{a}r [b\bar{o} bvi_x]_y]_1$ (cí) njí $\eta w \tilde{e}$ nsi $p_x kw \tilde{a}^2 sh\bar{i} [_{CP} t'_1 i-n\bar{e}$ FOC friend children 3sg.poss CI woman every think 3sg-comp ó_y mū cèb t₁]. 3PL.SM PST2 insult '(It's) a friend of $[her_x children]_y$ (that) every woman_x thinks that they_y insulted.'
 - b. *A $[_{DP}$ ŋkār $[b\bar{o} bvi_x]_y$ $]_1$ (cí) \dot{o}_y kwà?shī $[_{CP}$ t'₁ \dot{o} -n $\bar{\epsilon}$ njíŋwè FOC friend children 35G.POSS CI 3PL.SM think 3PL-COMP woman nsip_x à mū cèb t₁]. every SM PST2 insult '(It's) a friend of $[her_x children]_y$ (that) they_y think that every woman_x insulted.'

In (47a), the embedded object $\eta k\bar{a}r b\bar{b} bvi$ 'friend of her children' has undergone focus-fronting. It contains a bound variable anaphor bvi 'her' which in the targeted reading is bound and therefore should be c-commanded by the universally quantified matrix subject $njn\eta we nsip$ 'every woman'. At the same time the embedded pronominal subject δ 'they' is coreferential with the fronted object and therefore should not c-command it in order to avoid a Principle C violation. There is thus only one position in which both requirements are met, namely the intermediate position t'_1 in the left edge of the embedded clause. Just like in English, the corresponding sentence with the matrix and embedded subjects swapped is ungrammatical (47b) because neither in t'_1 nor in t_1 can both requirements be met at the same time. That (47a) is grammatical indicates that the object reconstructs into the intermediate position. In turn, this provides a strong argument in favour of (successive-cyclic) \overline{A} -movement being involved in the \dot{a} -focus construction.

Moreover, that the dependency involves \overline{A} -movement is also suggested by a diagnostic that does not rely on reconstruction. We observe superiority effects when both arguments of a transitive verb are questioned. In such a case, only the higher wh-element may undergo fronting (48a). If the lower wh-element is fronted across the higher one, the sentence is severely degraded (48b).

(48) Superiority effect in Limbum

- a. Á $nd\dot{a}_1$ (cí) \dot{i}_1 bí yū kéć à? FOC who CI 3SG.S FUT1 buy what Q 'Who will buy what?'
- b. ?? À $k\epsilon\epsilon_1$ (cí) ndá bí yū ____1 à? FOC what CI who FUT1 buy Q 'What will who buy?'

This receives a straighforward explanation if focus fronting involves movement because movement is subject to the Minimal Link Condition (Chomsky 1995) requiring the closest wh-item to move, which in this case is the subject. In order to obtain the same superiority effect under the view that focus involves base-generation, an additional constraint on order preservation would have to be postulated. Note that in Limbum, displacement of the subject obligatorily requires a resumptive pronoun to appear in the regular subject position.

A last piece of evidence for \overline{A} -movement is the observation that focus fronting licenses parasitic gaps (cf. Ross 1967, Bresnan 1977, Taraldsen 1981, Nissenbaum 2000), which are commonly taken to diagnose movement (Engdahl 1983, Culicover 2001). Thus, focalisation of the object of the matrix clause as either a question (50a) or new information focus (50b) licenses a parastic gap in the object position of the relative clause.¹¹ The sentence in (49) serves as a baseline.

¹¹It is actually not clear that the gap inside the relative clause is parasitic on the gap in the matrix clause. As shown in section 3.3, relative clauses do not constitute islands for focus fronting of nominal phrases. It is therefore equally conceivable that the matrix gap is parasitic on the gap in the relative clause. In any case, whether this one filler-two gaps relation is treated as movement of a null operator in either clause (typically the relative clause, Contreras 1984, Chomsky 1986, Nissenbaum 2000, Arregi & Murphy 2022) or as Across-the-Board movement (ATB, Sag 1983, Williams 1990, Levine et al. 2001, Hornstein & Nunes 2002, Nunes 2004, Levine & Hukari 2006, Chaves 2012, Bruening & Al Khalaf 2017), it does involve movement.

(49) Baseline sentence
ŋwê nsìp [_{RelCP} zhi í rɨŋ ŋkfúú] köŋ yē.
person every 3sg.Rel 3sg.s know chief like 3sg.ANIM.OBJ
'Everyone who knows the chief likes him.'

- (50) Focus fronting licenses parasitic gaps
 - a. Á ndá (cí) ŋwè nsìp [_{RelCP} zhi í rɨŋ ____pg] kòŋ ____1 à? FOC who CI person every 3sG.REL 3sG.s know like Q 'Who does everyone who knows like?'
 - b. Á ŋkfúú (cí) ŋwè nsìp [$_{RelCP}$ zhi í rɨŋ _____pg] köŋ ____1. FOC chief CI person every 3SG.REL 3SG.S know like 'It is the chief who everyone who knows likes'

Taken together, the four reconstruction diagnostics (Principle C, variable binding, relative scope, reconstruction conflicts) coupled with the two diagnostics that do not rely on reconstruction (superiority, parasitic gaps) suggest that the focussed constituent in the \dot{a} -focus construction has undergone syntactic movement into its surface position.

3.3 Selective island-sensitivity

In contrast to the evidence in favour of movement, we find that extraction of nominal objects, just like in Asante Twi, does not trigger any island effects. Thus, focalization of objects and wh-question formation are licit from typically strong island configurations like a complex noun phrase with a CP-complement (51), a complex noun phrase with a relative clause (52), and an adjunct (53).

- (51) Focus and wh-extraction of DP-object from complex NP (with CP-complement)
 - a. Á njiŋwɛ₁ (cí) mè mū yō? [_{DP} nsūŋ (fɔ̃) [_{CP} zhǐ-nĒ Nfor bí FOC woman CI 1SG PST2 hear rumour DET 3SG.INAN-COMP Nfor FUT1 konī __1]]. meet

'I heard the rumour that Nfor will meet A WOMAN.'

b. Á $rkar_1$ (cí) mè mū yō? [_{DP} nsūŋ (fɔ̄) [_{CP} zhǐ-nē Nfor bí yū FOC car CI 1SG PST2 hear rumour DET 3SG.INAN-COMP Nfor FUT1 buy ___1]].

'I heard the rumour that Nfor will buy A CAR.'

- c. Á ndá₁ (cí) wè mū yō? [$_{DP}$ nsūŋ (fɔ̃) [$_{CP}$ zhǐ-nē Nfor bí kənī foc who ci 2sg pst2 hear rumour det 3sg.inan-comp Nfor fut1 meet ___1 à]]?
 - Q

'Who did you hear the rumour that Nfor will meet?'.

d. Á $k\bar{\epsilon}_1$ (cí) wè mū yō? [_{DP} nsūŋ (fɔ̄) [_{CP} zhǐ-n $\bar{\epsilon}$ Nfor bí yū FOC what CI 2SG PST2 hear rumour DET 3SG.INAN-COMP N. FUT1 buy ___1 à]]?

Q

'What did you hear the rumour that Nfor will buy?'

- (52) *Wh-extraction of DP-object from complex NP (with relative clause)*
 - a. Á ndá₁ (cí) ó mū kōnī [_{DP} njíŋwè fō [_{CP} zhǐ í kòŋ <u>1</u> à]]?
 FOC who CI 3PL.SM PST2 meet woman DET REL.SG 3SG.S likes Q
 'Who did they meet the woman who likes?'
 Possible answer: "They met the woman who likes Shey."
 - b. Á kéé₁ (cí) ó mū kōnī [_{DP} njíŋwè fō [_{CP} zhɨ í mū yū ___1 à Foc what ci 3pl.sm pst2 meet woman det rel.sg 3sg.s pst2 buy Q
]]?

'What did they meet the woman who bought?' Possible answer: "They met the woman who bought plantains."

- (53) Wh-extraction of DP-object from adjunct
 - \hat{A} ndá₁ (cí) Tanko bá Shey ó cí fà? kà? [$_{CP}$ ànjś?] ó a. cí FOC who CI Tanko and Shey 3PL.SM PROG work NEG because 3PL.SM PROG ró $__1$ à]? search.for 0 'Who are Tanko and Shey not working because they are searching for?' Possible answer: "Tanko and Shey are not working because they are searching for Nfor." b. Á ké ϵ_1 (cí) Tanko bá Shey ó cí cí
 - b. A k $\epsilon \epsilon_1$ (cí) Tanko bá Shey ó cɨ fà? kà? [_{CP} ànj5? ó cɨ FOC what CI Tanko and Shey 3PL.SM PROG work NEG because 3PL.SM PROG s $\epsilon r r$ __1 à]?

fetching Q

'Who are Tanko and Shey not working because they are fetching?'

Possible answer: "Tanko and Shey are not working because they are fetching wood."

Likewise, object wh-extractions from what is typically a weak island are also grammatical. This is shown for the *wh*-island in (54). Note that there is no difference depending on whether the island-creating *wh*-element appears in-situ (54b), which is the most natural position in this case, or in the focus position of the embedded clause (54c). This observation holds even when the extracted *wh*-element is an adjunct rather than an argument (54d).

- (54) *Wh-extraction from a wh-island* (Hein 2018: 52)
 - a. Shey à mū bípshī [$_{CP}$ í-nɛ Nfor bí zhē kéć]. Shey sm pst2 ask 3sg-comp Nfor fut1 eat what 'Shey asked what Nfor will eat.'
 - b. Á $k\epsilon\epsilon_1$ (cí) Shey à mū bípshī [_{CP} í-n ϵ Nfor bí zhē ____1 àsí?k ϵ]. FOC what CI Shey SM PST2 ask 3sG-COMP Nfor FUT1 eat when 'What is it that Shey asked when Nfor will eat (it).'
 - c. Á ké ϵ_1 (cí) Shey à mū bípshī [_{CP} í-n ϵ á àsí?k ϵ (cí) Nfor bí zhē FOC what CI Shey SM PST2 ask 3SG-COMP FOC when CI Nfor FUT1 eat ____1 à].

Q

'Shey asked what Nfor will eat when.'

d. Á àsí?kè (cí) Shey à mū bípshī [_{CP} í-nε á kéé (cí) Nfor bí zhē à].
 FOC when CI Shey SM PST2 ask 3SG-COMP FOC what CI Nfor FUT1 eat Q
 'Shey asked WHEN Nfor will eat WHAT.'

At first glance, this might suggest that focalization from inside these islands does not involve movement. However, we find that the same reconstruction effects as for non-island focus appear in focalizations from inside an island (using the CNP-island for illustration here). Thus, we observe binding reconstruction for Condition C (55) (compare (40)) and for variables (56) (compare (41)) as well as for relative quantifier scope (57) (compare (42)).

(55) Reconstruction for Principle C into complex NP island
Á Nfor_i (cí) í_{*i/j} mū yō? [_{DP} nsūŋ (fɔ̄) [_{CP} zhǐ-nē à cí ró ____i
FOC Nfor CI 3SG.S PST2 hear rumour DEF 3.INAN-COMP 2SG PROG search
]].

'He $_{i/j}$ has heard the rumour that you are searching for NFOR_i.'

- (56) Reconstruction for variable binding into complex NP island \hat{A} [táā ŋgwá zh $_{y/x}$]₁ (cí) mè mū yō? [_{DP} nsūŋ (fɔ̃) [_{CP} zhǐ-nē [ŋwè FOC father wife 3sg.POSS CI 1sg PST2 hear rumour DEF 3sg.INAN-COMP man ns \hat{p}]_x bí konī __1]]. every FUT1 meet 'I heard a rumour that every man_x will meet THE FATHER OF HIS_{x/y} WIFE.'
- (57) Reconstruction for scope into complex NP island
 Á [mbàŋrù]₁ cí mè mū yō? [_{DP} nsūŋ (fɔ̄) [_{CP} zhǐ-nē njíŋwè nsɨp à FOC male CI 1SG PST2 hear rumour DEF 3SG.INAN-COMP woman every SM mū bzʉ ____1]].
 PST2 birth
 'I heard a rumour that every woman gave birth to A SON.'

Importantly, we also find that focalization from inside an island gives rise to the same reconstruction conflicts as from the non-island configuration in (47). Thus, if the binder $nji_{1}we$ nsip 'every woman' of the variable associated with the extracted possessive marker bvi 'her' is the subject of the embedded clause that constitutes the complex NP island, focalization is grammatical (58a). This is because the extracted DP $\eta k\bar{a}r b\bar{o} bvi$ 'friend of her children' can reconstruct into the intermediate position t'_1 below the binder of the possessive bvi where it is furthermore not c-commanded by the subject pronoun δ 'they' of the embedded clause. This is important in order to avoid a violation of Condition C as the embedded subject δ is coreferent with the noun $b\bar{o}$ 'children' inside the focussed DP. However, if the universal quantifier is the subject of the embedded clause, focalization is ungrammatical (58b) because reconstruction of the focussed DP into both intermediate (t'_1) and base position ($__1$) would lead to a violation of Ccndition C since the pronominal matrix subject δ 'they' would c-command the coreferent R-expression $b\bar{o}$ 'children'.

- (58) Reconstruction conflict in complex NP island

b. * \hat{A} [DP IJkār [bō bvi_x]_y]₁ (cí) \hat{o}_y mū yō? [DP INSŪIJ (f5) [CP t'₁ FOC friend children 3SG.POSS CI 3PL.SM PST2 hear rumour DEF zhǐ-IRĒ njíIJWÈ INSIP_x à mū cèb ___1]]. 3SG.INAN-COMP woman every SM PST2 insult 'It is a friend of [her_x children]_y that they_y heard the rumour that every woman_x insulted.'

We may therefore conclude that the 'a-focus construction always involves \overline{A} -movement independent of whether the focussed nominal phrase or wh-element originates from inside an island configuration or not. Note that, in contrast to Asante Twi, we do not observe the presence of a resumptive pronoun with any of the nominals be they animate or inanimate.

As was the case in Asante Twi, the absence of island effects with nominal focus does not entail that island constraints are inactive in Limbum entirely. First note that focus fronting of VPs (59) and PPs (60) is possible in Limbum.

- (59) VP focus (Becker & Nformi 2016: 75)
 Á r-[_{VP} yū msāŋ]₁ (cí) njíŋwè fō bí gī ____1.
 FOC NMLZ- buy rice CI woman DET FUT1 do 'It is buying rice that the woman will do.'
- (60) PP focus
 Á [PP ní pkūh]₁ (cí) Nfòr nòŋī ____1.
 FOC in bed CI N. sleep
 'It is in the bed that Kofi is lying.'

This fronting may also cross a clause boundary as shown in (61) for VPs and in (62), although slightly degraded, also for PPs.

- (61) Long-distance VP focus (Hein 2020: 59)
 Á r-[_{VP} bò ndāp]₁ (cí) mè kwàshī [_{CP} mè-ne Nfor bí gī ____1].
 FOC NMLZ- build house сі 1sG think 1sG-сомр Nfor FUT1 do It is building a house that I think that Nfor will do.
- (62) Long-distance PP focus
 [?]Á [_{PP} ní pkūh]₁ (cí) mè kwàshī [_{CP} mè-nε Nfòr nòŋī ____1].
 FOC in bed CI 1sG think 1sG-COMP Nfor sleep
 'It is in bed that I think that Nfor is sleeping.'

However, when the VPs or PPs originate from inside a strong island, their focus fronting incurs an island violation. This is shown for the three by now familiar configurations, i.e. complex NPs in (63) and (64), relative clauses in (65) and (66), and adjuncts in (67) and (68).¹²

¹²Note that the degradation of PP-extractions involving the PP mantaa 'to the market' in (66) and (68) is relatively weak when compared to extraction of the PP $ni pk\bar{u}h$ 'in bed' (64). This might be due to the fact that the PP in the former serves as an argument of the verb do 'go' whereas the PP is an adjunct in the latter. It has been observed, at least for weak islands, that arguments are more easily extracted than adjuncts (Huang 1982, Lasnik & Saito 1984, 1992, Chomsky 1986). If this turns out to be the reason for the difference between ni $pk\bar{u}h$ 'in bed' and $manta\bar{a}$ 'to the market', the relevant configurations (complex NPs, relative clauses, adjunct clauses) could be classified as weak (selective) islands in Limbum. Consequently, the observed asymmetry in island-sensitivity would then not be based on the category of the extractee (DP vs. non-DP) but on its argument status (argument vs. adjunct).

(63) VP focus from a complex NP (with CP-complement)
*Á r-[_{VP} yū msāŋ]₁ (cí) mè mū yō? [_{DP} nsūŋ [_{CP} zhǐ-nē Nfòr bí FOC NMLZ- buy rice CI 1SG PST2 hear rumour 3SG.INAN-COMP Nfor FUT1 gī __1]]. do
(1 heard a rumour that Nfor will put picp'

'I heard a rumour that Nfor will BUY RICE.'

- (64) PP focus from a complex NP (with CP-complement)
 *Á [PP ní pkūh]₁ (cí) mè mū yō? [DP nsūŋ [CP zhǐ-nē Nfòr nòŋī ____1]].
 FOC in bed CI 1SG PST2 hear rumour 3SG-COMP Nfor sleep
 'It is in the bed that I heard a rumour that Nfor is lying.'
- (65) VP focus from a complex NP (with relative clause)
 *Á r-[_{VP} yū msāŋ]₁ (cí) ó mū k̄nī [_{DP} njíŋwὲ f̄ [_{CP} zhǐ í bí gī FOC NMLZ- buy rice CI 3PL.SM PST2 meet woman DET REL.SG 3SG.S FUT1 do ___1]].

'They met the woman who will BUY RICE.'

- (66) PP focus from a complex NP (with relative clause)
 ? [PP mà ntāā]1 (cí) ó mū kɔnī [DP njíŋwɛ̀ fɔ̃ [CP zhɨ í mū dò __1]].
 FOC to market CI they PST2 meet woman DET REL.SG 3SG.S PST2 go
 'They met the woman who went TO THE MARKET.'
- (67) VP-focus from an adjunct
 *Á r-[_{VP} yū msāŋ]₁ (cí) Nfor à cí fà? kà? [_{CP} ànjó? í cí gī ____1].
 FOC NMLZ- buy rice CI Nfor SM PROG work NEG because 3sG.S PROG do
 'Nfor is not working because he is BUYING RICE.'
- (68) *PP-focus from an adjunct* $2\bigwedge$ [mè ntēā] (cí) Nfor à cí fà? li

? $A [PP mà ntāā]_1$ (cí) Nfor à ci fà? kà? [$_{CP}$ ànjó? í mū dò ____1]. FOC to market CI Nfor SM PROG work NEG because 3SG.S PST2 go 'Nfor is not working because he went TO THE MARKET.'

An exception to this pattern is the *wh*-island from which both VPs (69) and PPs (70) may undergo focus fronting without incurring an island violation.

(69) *VP* focus from wh-island

á $r-[_{VP}$ bò $nd\bar{a}p]_1$ (cí) Shey à mū bípshī [_{CP} í-nɛ á àsí?kɛ̀ (cí) Nfor FOC NMLZ- build house ci Shey 3sg pst2 ask 3sg-comp foc when ci Nfor bí gī ____1 à]. FUT1 do Q 'Shey asked when Nfor will BUILD A HOUSE.'

(70) *PP focus from wh-island*

We can thus conclude that complex NPs (of the CP-complement and the relative clause type) and adjuncts do have island status in the language. This status only seems to be suspended

if the extracted element is nominal (and an argument).¹³ Embedded wh-configurations, however, apparently do not constitute an island configuration for focus fronting, independent of the properties of the extracted element. On the surface, the pattern in Limbum therefore looks very parallel to the one in Asante Twi. Nominal arguments may extract freely from islands while VPs and PPs incur violations in these contexts despite being focus-frontable in non-island environments.

3.4 No repair by resumption in Limbum

Recall that the exemption of nominals from island constraints in Asante Twi could at least partially be explained by them leaving a resumptive pronoun that circumvents a violation of a representational PF-island constraint before it is deleted (for inanimate pronouns). This proposal gains some support in Twi from the fact that the resumptive pronoun appears overtly with animate objects. Given the close similarity between island-sensitivity patterns in Twi and Limbum, one might wonder whether this analysis can be transferred to the Limbum data.

While all examples hitherto contained a gap in the base position of the ex-situ focussed element, overt resumption is indeed an option in Limbum (71).

(71) Object focus with resumptive pronoun

a.	Á	njiŋw ϵ_1	(cí)	Nfor bí	kənī	{1 /	$y\bar{e}_1\}.$
	FOC	woman	CI	Nfor FUT1	meet		3sg.o
	'Nfo	or will m	eet .	a woman.'			

b. Á $rkar_1$ (cí) Nfor bí $y\bar{u} \{ __1 / zhi_1 \}$. FOC car CI Nfor FUT1 buy 3SG.INAN 'Nfor will buy A CAR.'

However, this option is severely restricted. Resumption only occurs with focussed bare nouns. It is ungrammatical with virtually all other nominal elements, including proper names (72), pronouns (73), definite nouns marked with the definite determiner f_5 (74), and wh-items (75).

(72) No resumption with focussed proper names
 Á Tanko₁ (cí) Nfòr à mū yē { *yē₁ / ___1} nìŋkòr.
 FOC Tanko CI N. SM PST2 see 3sG.O yesterday
 'Nfor saw ТАNКО yesterday.'

- (i) No extraction from either conjunct
 - a. ??Á k $\acute{\epsilon}\acute{\epsilon}_1$ (cí) Nfor bí [$_{\&P}$ [$_{VP}$ bō ____1] kìr [$_{VP}$ yū ntùmntùm]] à? FOC what CI Nfor FUT1 build and buy motorbike Q '*What will Nfor build and buy a motorbike?'
 - b. *Á k $\acute{\epsilon}\acute{\epsilon}_1$ (cí) Nfor bí [$_{\&P}$ [$_{VP}$ bō ndāp] kìr [$_{VP}$ yū ____1]] à? FOC what CI Nfor FUT1 build house and buy Q '*What will Nfor build a house and buy?'

¹³Interestingly, the only island that seems to restrict focalization also of nominal elements is the Coordinate Structure Constraint (CSC, Ross 1967). Fronting of nominal arguments from inside ether conjunct in (i) is ungrammatical. This indicates that the CSC is different in nature than the islands discussed in the main text and supports proposals that treat it as a representational LF constraint requiring both conjuncts to be of identical semantic type (Munn 1993, Reich 2007).

- (73) No resumption with focussed pronouns $A y\bar{e}_1$ (cí) Nfor à mū y \bar{e} { *y \bar{e}_1 / ____1} nìŋkòr. FOC 3SG CI Nfor SM PST2 see 3SG.0 yesterday 'Nfor saw HIM/HER yesterday.'
- (74) No resumption with focussed nouns marked with a definite determiner Á [ŋwè-ryē?nì fɔ]₁ cí í bí kɔ̄nī { *yē₁ / ___1} ntómbzù. FOC man-teach DEF CI Nfor FUT1 meet 3sG.0 first 'He will meet THE TEACHER first.'
- (75) No resumption with focussed wh-items
 Á ndá₁ (cí) Nfor à mū yē { *yē₁ / ___1} nìŋkòr à?
 FOC who CI Nfor SM PST2 see 3sG.0 yesterday Q
 'Who did Nfor see yesterday?'

This also holds for long-distance focus, where the focussed element originates inside an embedded clause, as shown for proper names in (76), pronouns in (77), definite nouns in (78), and wh-items in (79).

(76) No resumption with long-distance focussed proper names
 Á Tanko₁ (cí) mè kwà?shī [_{CP} mè-nε Nfòr à mū yē { ??yē₁ / ___1} nìŋkòr
 FOC Tanko CI 1sG think 1sG-COMP Nfor SM PST2 see 3sG.O yesterday
].

'It is Tanko who I think that Nfor saw (him) yesterday.'

- (77) No resumption with long-distance focussed pronouns
 Á yì₁ (cí) mè kwà?shī [_{CP} mè-nε Nfòr à mū yē { ??yì₁ / ___1} nìŋkòr].
 FOC 2PL CI 1SG think 1SG-COMP Nfor SM PST2 see 2PL yesterday
 'It is you(pl) who I think that Nfor saw (you) yesterday.'
- (78) No resumption with long-distance focussed nouns with a definite determiner
 Á [njíŋwè fɔ]₁ (cí) mè rìŋ [_{CP} mè-nε Nfor bí kɔ̄nī { *yē₁ / ___1}].
 FOC woman DET CI 1SG know 1SG-COMP Nfor FUT1 meet 3SG.O
 'It is the woman who I know that Nfor will meet (her).'
- (79) No resumption with long-distance focussed wh-items
 Á ndá₁ (cí) wè kwà?shī [_{CP} wè-nɛ Nfòr à mū yē { ??yē₁ / ___1} nìŋkòr à FOC who cī 2sg think 2sg-comp Nfor sм pst2 see 3sg.o yesterday Q]?

'Who do you think that Nfor saw (him) yesterday?'

Closer inspection further reveals that with bare nouns in focus position, a resumptive only occurs if the noun is interpreted as specific; and even in that case it is only one additional option besides a gap. Thus, in a context that strongly prefers a specific interpretation, both a gap and a resumptive pronoun may occur in the base position of the object (80).

(80) <u>Context</u>: Nfor has been very nervous today at school. When his classmate and best friend Tanko asks him why that is, Nfor tells him that he has a very important meeting with one of their teachers, Mr. Bassong, next week to talk about a stipend. In the afternoon, Nfor and Tanko meet up with their friend Shey who's going to a different school. He also notes that Nfor seems very nervous and asks him why. Nfor only says

that he has an important appointment coming up. After Nfor has left Shey asks Tanko:

- Q: Á ndá₁ (cí) Nfor bí kōnī <u>1</u> à? FOC who CI Nfor FUT1 meet Q 'Who(m) will Nfor meet?' Tanko replies:
- A: A η wè-ryē?ni₁ (cí) Nfor bí k \overline{a} nī { __1 / yē}. FOC man-teach CI Nfor FUT1 meet 3sG.0 'Nfor will meet a teacher.'

In a context that strongly prefers a non-specific interpretation of the focussed noun, however, only a gap is acceptable (81).

- (81) <u>Context</u>: Nfor has been very nervous today. When his friend Tanko asks him why that is, Nfor tells him that in today's mail he has received a summons to the police station for a testimony next week. In the afternoon, Nfor and Tanko meet up with their friend Shey. He also notes that Nfor seems very nervous and asks him why. Nfor only says that he has an important appointment coming up. When Nfor has left Shey asks Tanko:
 - Q: A ndá₁ (cí) Nfor bí kōnī <u>1</u> à? FOC who CI Nfor FUT1 meet Q 'Who(m) will Nfor meet?'

Tanko replies:

A: \hat{A} ŋwè-rta₁ (cí) Nfor bí $k\bar{\partial}n\bar{1} \{ __1 / \#y\bar{e}_1 \}$. FOC man-cap CI Nfor FUT1 meet 3sG.0 'Nfor will meet A POLICEMAN.'

In other words, the presence of a resumptive pronoun forces a focussed bare noun indefinite to receive a specific interpretation. This property of Limbum object focus extraction is not extraordinary cross-linguistically as it has been observed for other languages that optional resumption requires a specific/referential antecedent (Doron 1982, Suñer 1998, Sharvit 1999, Aoun et al. 2001, Bianchi 2004, Sichel 2014).

Drawing the parallel to Asante Twi, one could, of course, assume that every focus extraction underlyingly leaves a resumptive pronoun. The lack of overt resumptives with proper names, pronouns, definites, and non-specific indefinites would then be due to a PF-deletion rule. However, there are some indications that this is an implausible solution. First, gaps in Twi nominal extraction occur in a natural class of contexts, namely with inanimate objects. The contexts in which no resumption may occur in Limbum do not form a natural class. Rather, the opposite is true, namely that the contexts that allow resumptives, inanimate and animate specific bare nouns, form a natural class. If one were to treat resumption in Limbum on a par with resumption in Asante Twi, that is as the default output of extraction from object position, one would have to restrict the domain of application of a purported PF-deletion rule to all nominals except specific indefinites. In addition, such a rule would have to also optionally be applicable to specific indefinites since an overt resumptive is not mandatory with them (80). Second, unlike in Twi, there is no evidence that an alleged underlying resumptive pronoun appears overtly in any other contexts except specific indefinites. Clause-final adverbs, for instance, do not force an overt resumptive instead of a gap (72)–(79).

What is more, there already exists a deletion rule in Limbum that is almost identical to the one proposed for Asante Twi. It applies to regular object pronouns in discourse-anaphoric use and optionally deletes them (82) (cf. object (pro-)drop).

- (82) Yaa à mũ y $\bar{\epsilon}$ rkār zhì í kòŋ. Ndū zhì bí yū (zhi) a. Yaa sm pst2 see car RELSG 3SG.S like husband 3SG.POSS FUT1 buy 3SG.INAN.O àyàŋsè. tomorrow 'Yaa saw a car that she likes. Her husband will buy it tomorrow.' Yaa à mū yē mŋkòb bvì kòŋ. Ndū zhì b. í bí yū Yaa SM PST2 see suitcases REL.PL 3SG.S like husband 3SG.POSS FUT1 buy
 - (**bvi**) àyàŋsè. 3PL.INAN.O tomorrow 'Yaa saw suitcases (that she likes). Her husband will buy them tomorrow.'

However, like the deletion rule for object pronouns in Asante Twi, it is restricted to inanimate pronouns. Deletion of animate object pronouns leads to ungrammaticality (83).

- (83) a. Yaa à mū yē Shey. Ndū zhì bífu konī *(yē) àyàŋsè.
 Yaa sm pst2 see Shey husband 3sg.poss FUT3 meet 3sg.o tomorrow 'Yaa saw Shey. Her husband will met him tomorrow.'
 - b. Yaa à mū yē Shey ba Ngala. Ndū zhì bífu kənī *(**wō**) àyàŋsè. Yaa sm pst2 see Shey and Ngala husband 3sg.poss fut3 meet 3pl.o tomorrow 'Yaa saw Shey and Ngala. Her husband will meet them tomorrow.'

If, as in Twi, this rule were responsible for the deletion of underlying resumptive pronouns and the occurrence of pseudo-gaps, it should spare animate resumptives. Under the assumption that every nominal extraction first left a resumptive pronoun to later be deleted at PF, we would therefore expect that pseudo-gaps were restricted to inanimate objects, contrary to fact.

In light of these observations, it seems to be the case that island constraints truly are selectively inactive for nominal (argument) focalization. If one can focus a nominal object via movement from inside an island and leave a true gap (as opposed to a silent or PF-deleted resumptive pronoun as in Asante Twi) the island simply cannot hold. If this conclusion is on the right track, if not for Asante Twi then at least for Limbum, it immediately raises two questions: (i) Why excatly does the split in extractability run between nominal and non-nominal elements and (ii) how can we model this permeability in a formal system? I will address both questions in the following section.

4 An account of selective island permeability in Limbum

With regard to the first question, it is worth noting that the division between exceptionally extractable and non-extractable categories is basically the same as in English, as discussed in the context of untensed strong islands in section 1. That is, while DPs can under certain circumstances be moved from inside an island PPs (and VPs) cannot. For English, Cinque (1990) linked this to the availability of silent resumptive pronouns for DPs but not PPs and VPs. In a similar way, the category-sensitive island permeability in Asante Twi can possibly be traced back to silent resumptive pronouns, too, as argued for by Korsah & Murphy (2020, 2024). However, as we have seen in the previous section, these approaches do not straightforwardly carry over to Limbum. Hence, there must be some other difference between DPs on the one side and PPs and VPs on the other that is responsible for their different behaviour in island extractions in Limbum. I argue that this difference concerns the presence of ϕ -features, which are encoded on DPs but arguably not on PPs or VPs. Concerning the second question, note

that the clause-level in Limbum shows sensitivity to ϕ -features as reflected by the fact that it exhibits complementizer agreement. It is this ϕ -sensitivity and its interaction with ϕ -features on other constituents in the clause that, as I argue, leads to the pattern of category-sensitive selective island permeability that we observe in Limbum. More specifically, complementizer agreement shows some exceptional behaviour in island contexts, where non- ϕ -bearing elements are blocked from extraction. I suggest that it is the exceptional behaviour of complementizer agreement in islands that leads to the observed unextractability of non- ϕ -bearing constituents like PP and VP. In what follows, I will first provide an overview of the complementizer agreement pattern and then propose a possible implementation of its connection to island permeability.

4.1 Complementizer agreement in Limbum

In patterns of complementizer agreement, the complementizer of an embedded clause agrees for ϕ -features with an argument. Languages vary as to whether agreement takes place with an argument of the matrix clause or of the embedded clause. The former type is not untypical for African languages (Baker 2008 on Kinande; Idiatov 2010 on Mende languages; Diercks 2013, Carstens 2016 on Lubukusu; Duncan & Torrence 2017 on Ibibio; Letsholo & Safir 2019 on Ikalanga; Driemel & Kouneli 2024 on Kipsigis) while the latter type has been documented for Germanic varieties (Shlonsky 1994, Zwart 1997, Carstens 2003, van Koppen 2005, 2012, Fuß 2008, 2014, Haegeman & van Koppen 2012, van Alem 2024).

Nformi (2018) documents and discusses a pattern of complementizer agreement of the former type in Limbum. In what follows, I will briefly report his data.¹⁴ In Limbum, the complementizer $n\varepsilon$ is prefixed with an element that covaries depending on the ϕ -features of the subject of the matrix clause. The different forms of the prefix are given in (84).

(84) Complementizer agreement prefixes (Nformi 2018: 2)

	SG	PL
1exc.	me-	wér-
1inc.	—	sí-
2	wέ-	yì-
3	í-	ó-

As we have seen throughout the paper, the agreement prefix tracks the ϕ -features of the matrix subject (85).

(85)	a.	Bì fo ó là ó-n $\bar{\epsilon}$ sì vù.	
		people det sм say 3pl-сомр 1pl come	
		'The people have said that we should come.'	
	b.	Sì à là sí-nē bì fə ó vù.	
		1pl.inc sm say 1pl.inc-comp people det sm come	
		'We have said that the people should come.'	(Nformi 2018: 2)

Furthermore, agreement is with the closest, i.e. the local, matrix subject (86).

¹⁴Tone-markings are those of the source. It seems that on some vowels the tones are missing. There is, unfortunately, no information on whether that means that the tone is a mid-tone or whether a tone has simply not been marked on that vowel.

(86) Nfor à mū la í-nε bì ó ci súŋ *í-/ó-nε wε vù.
Nfor SM PST2 say 3sG-COMP people SM PROG tell 3sG-/3PL-COMP 2sG come
'Nfor said that people are reporting that you have come.' (Nformi 2018: 2)

While it has been argued based on Mende languages that agreement of this sort is typically logophorically controlled (Idiatov 2010), Nformi (2018) shows this is not the case for Limbum. In (87), the source of information, i.e. the logophoric center of the discourse is the child, whose ϕ -features are 3rd person singular. Nonetheless, the complementizer exhibits a 1st person plural agreement prefix, which are exactly the ϕ -features of the matrix subject.

(87) Wer à mū yō? sí mū wer-ne/*í-ne Nfor à sé? ŋgu.
1PL.EXC SM PST2 hear PREP child 1PL.EXC-COMP/3SG-COMP Nfor SM fetch wood
'We heard from the child that Nfor fetched wood.' (Nformi 2018: 3)

Agreement is with the subject even in cases where that subject is an expletive (88).

(88)	a.	Í mū boŋ í-nε	m ϵ m \bar{u}	dō mà nd	àb.
		EXPL PST2 good 3sg-	COMP 1SG PST2	2 go prep ho	use
		'It was good that I w	ent home.'		
	b.	Í dòŋshi í-nε	bō wó	ó vi	1 .
		EXPL seems 3SG-COM	лр children 2sc	G.POSS 3PL CO	ome
		'It seems that your o	hildren have c	ome.'	(Nformi 2018: 4)

Interestingly, complementizer agreement with the subject is blocked by an intervening indirect object. In addition, this intervention is defective (Chomsky 2000) as the intervening object cannot itself act as the controller of agreement (89). Instead, the complementizer shows up in its bare, unprefixed form $n\varepsilon$. In the absence of the object, the complementizer agrees with the matrix suject as expected (90).

(89)	a.	Paul à mū sūŋ mε (*í-/*mε-)nε wε dò rdjὲr.	
		Paul sм pst2 tell 1sg 3sg-/1sg-сомр 2sg go journey	
		'Paul has told me that you have travelled.'	
	b.	Mε mū sūŋ Paul (*mε-/*í-)nε wè dò rdjèr.	
		1sg pst2 tell Paul 1sg-/3sg-сомр 2sg go journey	
		'I have told Paul that you have travelled.'	(Nformi 2018: 5)
(90)	a.	Paul à mū lāā í-n ϵ w ϵ dò rdj ϵ r.	
		Paul sм pst2 say 3sg-сомр 2sg go journey	
		'Paul has said that you have travelled.'	
	b.	Με mū lāā mε-nε wε dò rdjèr.	
		1sg pst2 say 1sg-сомр 2sg go journey	
		'I have said that you have travelled.'	(Nformi 2018: 5)

The same pattern emerges with experiencers that intervene between the complementizer and the expletive subject of the matrix clause. Agreement cannot be established, neither for the subject nor for the experiencer (91).

(91) a. I mū yáŋ Tanko (*í-)nɛ mɛ mū nàti. EXPL PST2 pain Tanko 3sG-COMP 1sG PST2 leave 'It pained Tanko that I left.' b. Í bā boŋ bì fo (*ó-)nɛ mū wàb à chàà. EXPL PST1 please people DET 3PL-COMP child 3PL.POSS SM succeed 'It pleased the people that their child suceeded.' (Nformi 2018: 5)

What is more, some interveners seem to not block the agreement relation between the matrix subject and the complementizer even though they appear in the right position to be able to do so. Thus, objects embedded in a PP (92) as well as causees in a causative construction (93) pose no obstacle for complementizer agreement with the matrix subject.

(92)	a.	Shey à mū là nì bō fɔ *ó-/í-nɛ ó bí dòsí.
		Shey SM PST2 say PREP children DET 3PL-/3SG-COMP 3PL FUT1 go
		'Shey said to the children that they will go.'
	b.	Yà máā à mū lā bzhī nì wɛr *wɛr-/í-nɛ wɛr bó
		1sg.poss mother SM PST2 cook food BEN 1PL.EXC 1PL.EXC-/3sg-COMP 1PL can
		vùsí.
		come
		'My mother cooked food for us so that we might come.' (Nformi 2018: 6)
(93)	a.	Bì fə ó wéb-sí Nfor *í-/ó-n ϵ ó bí sūŋ nì m ϵ .
		people det sm fear-caus Nfor 3sg-/3pl-comp 3pl fut1 tell prep 1sg
		'The people frightened Nfor that they will report him to me.'
	b.	Me mū nəŋ-sí bō *ó-/me-ne ó būmī.
		1sg pst2 lie.down-caus children 3pl-/1sg-сомр 3pl sleep
		'I made the children lie down so that they can fall asleep.' (Nformi 2018: 6)

The overall pattern seems to be very similar to familiar cases of dative intervention (Preminger 2014, Bobaljik 2008, Řezáč 2008, Chomsky 2000, 2001), where dative-marked arguments (as indirect objects and experiencers often are) block an otherwise expected agreement relation and do themselves fail to control agreement.

4.2 Complementizer agreement as Upwards Agree

Nformi (2018) shows that the Limbum pattern of complementizer agreement can be captured neither by indirect Agree (Diercks 2013) nor by delayed valuation (Carstens 2016), both of which have been proposed to account for upwards CA in Lubukusu. He then goes on to formulate an approach in terms of direct Upwards Agree (Zeijlstra 2004, 2012, Bjorkman & Zeijlstra 2019), where the C-head, which hosts the complementizer, carries an unvalued ϕ -probe $[u\phi: \Box]$ that initiates an upwards search for a goal with valued ϕ -features that c-commands it (cf. Letsholo & Safir 2019, McFadden & Sundaresan 2021 for other accounts of CA in terms of direct Upwards for ϕ -features, finds and agrees with the ϕ -bearing DP subject and copies its ϕ -features onto C.

(94) Upwards CA in Limbum

$$\begin{bmatrix} vP & DP_{[\phi: value]} \\ \downarrow v' & v \\ \downarrow v \\ \downarrow v \end{bmatrix} TP \end{bmatrix} \end{bmatrix}$$

Now in order to capture the defective intervention, Nformi (2018) adopts a case-based approach (Bobaljik 2008). Assuming that Bantu languages have abstract case (Carstens 2016, Carstens & Diercks 2013), Nformi suggests that the ϕ -probe on C is relativized to nominative case. This means that the ϕ -probe on C will only copy ϕ -features from a nominative-marked

goal. In a sentence like (95), the dative-marked indirect object $m\varepsilon$ is encountered first by the upward-probing $[u\phi: \Box]$ feature on C. This halts the probe's search. However, the indirect object's ϕ -features are unable to value the probe giving rise to failed agreement. Somewhat unexpectedly, this does not result in default agreement or ungrammaticality. Instead, the complementizer simply appears in its bare form $n\varepsilon$.

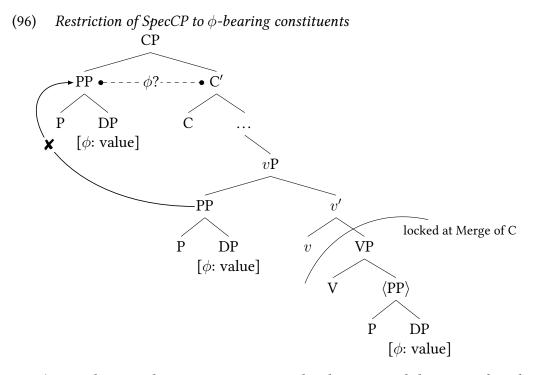
(95)
$$\operatorname{Paul}_{[NOM, 3SG]} a m \overline{u} s \overline{u} \overline{y} m \varepsilon_{[DAT, 1SG]} [CP (*i-/*m\varepsilon-)n \varepsilon_{[u\phi_{NOM}: \Box]} w \varepsilon do rdj \varepsilon r].$$

Paul SM PST2 tell 1SG 3SG-/1SG-COMP 2SG go journey
'Paul has told me that you have travelled.' (Nformi 2018: 5)

In contrast to dative-marked indirect objects and experiencers, causees and DP-complements of prepositions located between the matrix subject and the embedded complementizer do not intervene for agreement. Nformi (2018) suggests that this is because they are embedded under an additional structural layer and therefore do not c-command the probe, which is a prerequisite for Upward Agree. To summarize, an embedded C-head bears an unvalued $[u\phi_{\text{NOM}}: \Box]$ feature that discriminates for nominative case and initiates Upward Agree with a c-commanding argument DP. If that DP bears nominative case, its ϕ -features value the probe. If it bears a non-nominative case, it halts the probe's search but fails to value it resulting in a bare form of the complementizer.

4.3 Upward complementizer agreement unlocks the phase

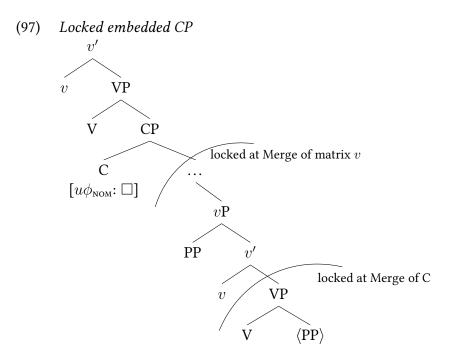
With this in place, we can turn to an account of selective island permeability in Limbum. As mentioned before, I will assume that it is the ϕ -features of DPs that allow them to undergo \overline{A} -movement from an island. What is more, I suggest that \overline{A} -movement leaving any embedded CP is contingent on the moving constituent bearing ϕ -features. As evidenced by CA, the C-layer is in some sense ϕ -sensitive in Limbum. Adopting a phase-based account of successive-cyclic movement with vP and CP as phases (Chomsky 2000, 2001, 2008), this can be achieved by restricting the edge of the CP-phase, i.e. SpecCP, to ϕ -bearing elements. Thus, an embedded C-head will check its specifier for ϕ -features. If this checking is not successful, as is the case with non-DP elements like a PP in (96), the derivation crashes. Without further modifications, this restriction on the edge of the CP-phase would prevent any \overline{A} -extraction of PPs and VPs from an embedded clause as they do not bear ϕ -features (though elements inside them might well do). This is clearly empirically false.



This is where CA becomes important. It has been argued that Agree has the potential to 'unlock' an already completed phase thereby allowing an otherwise illicit extraction from it (Rackowsky & Richards 2005, Halpert 2016, 2018, Branan 2018, Davis & Branan 2019). Commonly, this unlocking is achieved by standard downwards Agree between the matrix verb and the embedded CP. Here, I argue that Upward Agree between the embedded complementizer and an argument in the matrix clause also makes an already completed CP-phase accessible again.¹⁵ Thus, while VPs and PPs may not initially be accessible for extraction to outside the embedded clause because they cannot land in the intermediate escape hatch position in SpecCP, they become available for movement again when the CP-phase is unlocked by complementizer agreement. Adopting the weak version of the Phase Impenetrability Condition (PIC, Chomsky 2001) that states that the domain of a phase head becomes inaccessible only when the next-higher phase head is merged, let us consider the derivation of a regular long-distance focus of a PP.

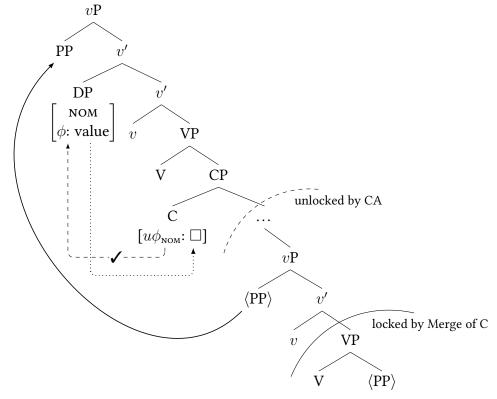
In (97), as a first step, the PP will have to be moved into the edge of the embedded vP phase. When C is merged, the vP phase becomes locked. Upon Merge of matrix v, the CP-phase domain will become locked, making the PP at the edge of embedded vP no longer accessible for movement. It can therefore not undergo movement to matrix SpecvP. In order for that to be possible, it would have had to move to SpecCP in a previous step. This movement, however, is preempted by the restriction of SpecCP to ϕ -bearing constituents (96).

¹⁵Alternatively, one could claim that the unvalued ϕ -probe on C initially prevents the completion of the CP phase. Material inside its domain would then remain accessible to operations outside the phase until Upward Agree takes place when the matrix subject is merged.



As shown in (98), once the nominative-bearing matrix subject is merged into the structure, the embedded complementizer will agree with it and thereby unlock the CP-phase. This makes the PP in embedded SpecvP accessible again. It will then undergo intermediate movement into matrix SpecvP above the subject.

(98) Unlocking of CP-phase via Upward Agree



In the next step, T is merged and checks nominative case on the subject, triggering its movement to SpecTP. The PP either reaches its final landing site in the focus position of the matrix clause, or it can move to a SpecvP of a yet higher clause in a similar fashion as it has moved from the embedded SpecvP into matrix SpecvP.

4.4 Explaining island permeability: Complementizer agreement in clausal islands

We can now turn to the analysis of selective island permeability. In most of the island cases above, we are dealing with a clausal constituent, i.e. a complement clause, a relative clause, or an adjunct clause. Interestingly, the latter two clause types do not show any complementizer agreement. The first clause type does although its complementizer's form is different from those listed in (84), a fact I will come back to momentarily.

4.4.1 No complementizer agreement in relative clauses and adjunct clauses

The adjunct island is introduced by a non-agreeing complementizer anj5? 'because' in (53a), repeated below as (99a), and the relative clause only shows a relative pronoun zhi (or vi for a plural head noun), which is arguably a realization of the relative operator, in (52a), repeated below as (99b).

- (99) \hat{A} ndá₁ (cí) Tanko bá Shey ó a. cí fà? kà? [$_{CP}$ ànj $_{3}$? ó Cí FOC who CI Tanko and Shey 3PL.SM PROG work NEG because 3PL.SM PROG ___1 à]? ró search.for Q 'Who are Tanko and Shey not working because they are searching for?' Possible answer: "Tanko and Shey are not working because they are searching for Nfor."
 - b. A ndá₁ (cí) ó mū kōnī [_{DP} njíŋwč fō [_{CP} zhǐ í kòŋ ___1 à]]?
 FOC who CI 3PL.SM PST2 meet woman DET REL.SG 3SG.S likes Q
 'Who did they meet the woman who likes?'
 Possible answer: "They met the woman who likes Shey."

The absence of any agreement prefixes on the complementizers in these cases, as I argue, shows that the relevant C-heads do not carry a ϕ -probe that could trigger Upward Agree. Nonetheless, the restriction of SpecCP to ϕ -bearing constituents still holds. Assuming that whatever makes relative clauses and adjunct clauses islands in languages like English is absent in Limbum, it is then straightforward why DPs may freely evacuate from them but PPs and VPs may not. A ϕ -bearing DP can be moved to the edge of the CP phase before it is locked and is therefore accessible for further movement into higher phase edges or final landing sites. A PP or VP must remain in the edge of the embedded vP and therefore depends on CA to unlock the embedded CP-phase in order to be able to reach the matrix vP edge, and, consequently, any landing site in higher clauses. Since such unlocking CA is absent in relative clauses and adjunct clauses, they constitute impermeable domains for PP and VP extraction.

4.4.2 Object complementizer agreement in complement clauses is too early

The only island case where there is an overt complementizer that is prefixed with what looks like an agreement morpheme are complement clauses such as the one in (51a), repeated below as (100).

(100) Á njiŋw ε_1 (cí) mè mū yō? [_{DP} nsūŋ (fɔ̄) [_{CP} zhǐ-nē Nfor bí kənī FOC woman CI 1SG PST2 hear rumour DET 3SG.INAN-COMP Nfor FUT1 meet ___1]].

'I heard the rumour that Nfor will meet A WOMAN.'

However, this complementizer clearly does not agree with the matrix subject. If this were the case, the complementizer should take the form *i*-*n* ε . In fact, the prefix *zhĭ*- does not appear at all in the list of prefix forms (84) provided by Nformi (2018), repeated in (101). One could try to argue that it is the default agreement form that occurs in the absence of agreement or when agreement has failed. However, as noted above for example (95), failure of CA in e.g. dative intervention cases results in an unprefixed complementizer rather than a purported default form *zhĭ-n* $\overline{\varepsilon}$. Therefore, I will argue here that the complementizer in (100) actually agrees with the noun that embeds it, that is, it agrees with the matrix direct object *nsū*₁ (*f*₅) '(the) rumour'. Consequently, Nformi (2018)'s assessment of CA in Limbum must be incomplete as CA does not skip all objects, but only the ones that do not bear (abstract) accusative. Indeed, in all of his examples the interveners were either arguably dative-marked indirect objects or experiencers but never straightforwardly accusative-bearing direct objects.

That (100) constitutes a genuine case of agreement with a direct object, meaning that the ϕ -probe on C must be relativized to structural case rather than nominative, is supported by a closer investigation of the actual morphological form of the agreement prefix. First, note that the prefixes for subject agreement provided by Nformi (2018) in (84), repeated below as (101), essentially take the same form as the subject pronouns (102).¹⁶

(101)	Subject	CA pr	efixes (1	Nformi 2018: 2)	(102)	Subject p	ronou	ns (Hein	2021: 136)
		SG	\mathbf{PL}				SG	PL	
	1exc.	me-	wér-	-		1exc.	mè	wèr	
	1inc.	—	sí-			1inc.	—	sì	
	2	wέ-	yì-			2	wὲ	yì	
	3	í-	ó-			3.anim	í	wōyè	
						3.inan	í	bvī	

While the object series of personal pronouns in (103) is largely syncretic with the subject one, it crucially differs in the 3rd person. Interestingly, the 3rd person object pronoun for inanimates $zh\bar{i}$ is nearly identical with the prefix $zh\check{i}$ - on the complementizer in (100).

(103) *Object pronouns* (Hein 2021: 136)

	SG	PL
1exc.	mè	wèr
1inc.	—	sì
2	wὲ	yì
3.anim	yé	wō
3.inan	zh ī	bvī

Assuming that object agreement prefixes, like subject agreement prefixes, closely resemble the respective pronouns, this speaks against treating zhi- in (100) as a default prefix and in favour of it being an actual object agreement prefix. If this is correct, we would expect the prefix to vary depending on number and animacy of the matrix object. Thus, turning the object $ns\bar{u}\eta$ 'rumour' in (100) into the plural $ms\bar{u}\eta$ 'rumours' should yield a complementizer prefix that looks very much like the object pronoun $bv\bar{i}$. As shown in (104), this is indeed the case.

¹⁶While the pronoun $w \bar{\sigma} y \hat{\epsilon}$ for 3rd person plural seems to differ significantly from the respective subject CA prefix, it should be noted that the subject marker for this specification is $\dot{\sigma}$ (for discussion of subject markers and in particular the 3rd person plural, see Hein 2021).

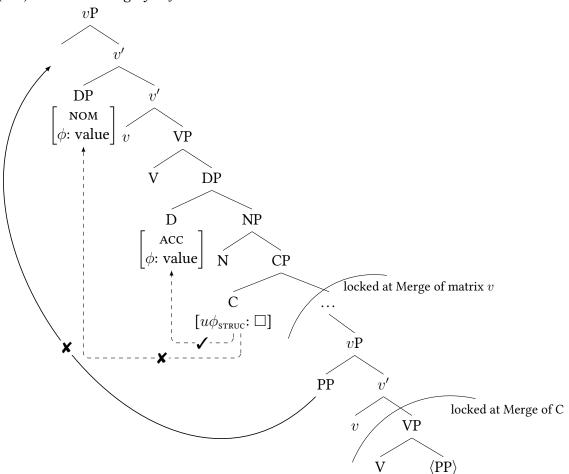
(104) Á njiŋw ε_1 (cí) mè mū yō? [_{DP} msūŋ [_{CP} bvǐ-nē Nfor bí kənī FOC woman CI 1SG PST2 hear rumours 3PL.INAN.ACC-COMP Nfor FUT1 meet ___1]].

'I heard rumours that Nfor will meet A WOMAN.'

I conclude from this that the complementizer in examples such as (100) or (104) agrees with its embedding noun, i.e. the matrix object. More generally, this means that CA in Limbum is not restricted to matrix subjects (*pace* Nformi 2018) but also holds for direct objects. Since in most cases the embedded clause itself acts as the direct object of the matrix clause, the occurrence of object CA is restricted to structures in which the embedded clause is embedded into a direct object DP. In terms of probing, this means that the ϕ -probe on the complementizer is not relativized to nominative case but rather to structural case, which encompasses both nominative and accusative, but crucially not dative.

Given that CA takes place in complex NP islands with complement clauses, which should enable the extraction of PPs and VPs, why can they not be moved from inside the complement clause? The answer is: Because object agreement takes place before matrix v is merged. It therefore happens too early to unlock the CP phase for movement to SpecvP. The CP will become locked again when the matrix v head enters the structure. Since the probe on embedded C has already entered into an Agree relation with the matrix object DP, it cannot again Agree with the subject and can thus not unlock the CP phase a second time.

(105) No unlocking by object CA



Although the data are somewhat limited and more work on other islands and on complementizer agreement in Limbum is needed, I have suggested that there is a connection between selective island permeability and complementizer agreement that rests on the assumption that SpecCP is reserved for ϕ -bearing constituents only. This means that non- ϕ -bearing constituents like PPs and VPs must rely on the phase-unlocking property of complementizer agreement to be able to leave the embedded clause. However, CPs that constitute islands, in contrast to other embedded CPs, do not show ϕ -agreement with the matrix subject. They either do not show any agreement at all, in which case non- ϕ -bearing constituents are trapped inside the CP-phase. Or they exhibit agreement with the direct object. In this case, PPs and VPs also get trapped inside the CP-phase because this agreement comes too early in the derivation to unlock the CP-phase for extraction to matrix SpecvP.

5 Conclusion

Both, Asante Twi and Limbum exhibit a pattern of \overline{A} -movement where nominal elements may freely be extracted from inside what are commonly taken to be strong islands. In contrast, movement of VP and PP constituents from these configurations incurs an island violation. This pattern is reminiscent of the situation with strong islands in English, which under certain conditions allow for nominal gaps but may never contain gaps of PPs. However, an account of the licit nominal gaps as base generated empty resumptive pronouns as suggested for English, which are not available for PPs and VPs, seems implausible. The dependencies in Asante Twi and Limbum have properties of \overline{A} -movement also when the gap appears in an island. Moreover, both languages show overt grammatical resumption subject to language-specific conditions, and at least in Asante Twi the resumptives, be they inside or outside an island domain, behave like gaps for the purposes of several movement diagnostics. If one were to treat the island escapes as cases of repair by resumption nevertheless, one would have to assume that every movement underlyingly leaves a resumptive pronoun which satisfies island constraints at the point of their evaluation (either at PF, see Pesetsky 1998, Shlonsky 1992, Merchant 2001, Lasnik 2001, or in the syntax, Boeckx 2003, Müller 2014, Klein 2017) and subsequently undergoes PF-deletion to give the appearance of a gap on the surface.

As Korsah & Murphy (2020, 2024) suggest this might be a viable analysis for Asante Twi. For the Limbum pattern, however, I have argued that it seems implausible as overt resumptive pronouns have a much narrower distribution than in Asante Twi and the required deletion rule would have to encompass several different contexts that do not form a natural class. Instead, I suggest that the permeability of islands for nominal elements is due to their ϕ -features. Starting from the assumption that syntactic islands are entirely absent in Limbum, I propose that only ϕ -bearing elements may pass through the left edge of a clause. As PPs and VPs do not carry ϕ -features, this effectively restricts clause-external movement to nominal elements in both island and non-island configurations. The availability of long-distance movement of VPs and PPs from the latter is then accounted for by the observation that these configurations show complementizer agreement with the matrix subject, which unlocks the CP phase and thereby allows movement to skip the CP edge. In the relevant island configurations, complementizer agreement is either entirely absent, or it takes place with the matrix object which comes too early to unlock the CP phase. Hence, under this view, the Limbum pattern of selective island permeability is not so much one of unexpected extraction of nominal constituents from islands, but rather one of exceptional extraction of non- ϕ -bearing elements from regular embedded clauses.

More research on islands and on complementizer agreement is required to determine whether this approach holds up to a larger and more diverse set of Limbum data, or indeed to similar patterns of asymmetric extraction from islands and non-islands cross-lingusitically.

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