Resumption and islandhood in Igbo*

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August 2020

1 Introduction

This paper investigates resumption in Ā-dependencies in Igbo (Benue-Congo, Nigeria). Based on novel data we argue that the language exhibits two types of resumptive pronouns (RPs): (a) RPs that occur at the bottom of a base-generation dependency (topicalization), see section 2, and (b) RPs that terminate movement dependencies (focus movement), see section 3. Similar claims that have been made for a few other languages usually involve RPs in relative clauses and are mostly based on reconstruction effects or island-sensitivity. Igbo provides comprehensive evidence for the split of RPs in *all* Ā-movement dependencies, and the evidence also includes tonal cyclicity effects and parasitic gap (*pg*) licensing. Interestingly, type (b)-RPs are very restricted in Igbo; they only surface when the extraction site is within a PP, &P or NP. We show in section 4 that these RPs spell-out traces due to independent PF-requirements that demand the phonological realization of these positions along the lines of Pesetsky 1998; Landau 2006. Since RPs in Igbo do not repair islands we investigate islandhood in section 5. The set of islands in the language is small compared to other (Indo-European) languages. We provide evidence for the claim that the two parts of the Coordinate Structure Constraint have to be separated and that &Ps might not be syntactic islands at all. We suggest that all remaining islands in Igbo (clausal subjects, adjuncts, complex NPs) can be subsumed under adjunct islands. Section 6 concludes.

2 The formation of Ā-dependencies in Igbo

In this section we show that some Ā-dependencies in Igbo involve base-generation, while others result from movement. We will illustrate this claim on the basis of topicalization vs.

*For discussion of earlier versions of this paper, we thank Martin Salzmann and the audiences at NELS 50 (MIT, 10/2019), the syntax colloquiums at Goethe University Frankfurt (11/2019), at the University of Potsdam (01/2020), at the University of Pennsylvania (02/2020), and at Virtual GLOW 43 (HU Berlin, 04/2020). This research was funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – Project ID 317633480 – SFB 1287, Project C05 (Georgi).

focus fronting (focus ex-situ). But the properties reported for focus fronting also hold for ex-situ wh-questions (with a wh-pronoun) and relativization, see Amaechi and Georgi 2019; Amaechi 2020 for examples and further references. Igbo shows SVO order in declarative clauses, see ((1-a)). It has rich verbal morphology (tense, aspect, see Uwalaka 1988). Vowels come in [±ATR] pairs; the [–ATR]-variant is indicated by a dot subscript. Igbo is a tone language that distinguishes high (á) and low (à) tone as well as downstep (ā) (see Clark 1990; Nwachukwu 1995); tone has both lexical and grammatical functions. Igbo exhibits case distinctions: the 2sg and 3sg pronouns have a nominative/accusative distinction, other (pro)nouns don't; (pro)nouns also have a genitive form that is expressed by tone changes. For an overview of Igbo grammar see Green and Igwe 1963; Manfredi 1991; Emenanjo 2015. The basic word can be changed to express information-structural categories such as topic and focus. Example ((1-b)) illustrates focus fronting of a direct object (focus is indicated by small caps in the translation): the focused XP occurs in the clause-initial position and is followed by the focus marker *kà*; the canonical post-verbal DO-position is empty (gap, underscore), putting an RP there leads to ungrammaticality. Contrast this with DO-topicalization as shown in ((1-c)): the topic XP also occupies the clause-initial position, but there is no topic marker following it. Furthermore, topicalization requires the presence of an RP (bold-faced) at the bottom of the dependency, a gap is out.[1]

(1) Focus fronting and topicalization of a DO:

a. Ézè hụ̀-rụ̀ Àdá
Eze see-rV Ada
"Eze saw Ada.

b. Àdá kà Ézé hụ̀-rụ̀ __ / *yá
Ada FOC Eze see-rV 3SG.ACC
"Eze saw ADA." *focus*

c. Àdá, Ézè hụ̀-rụ̀ **yá** / *__
Ada Eze see-rV 3SG.ACC
"As for Ada, Eze saw her." *topic.*

Standard movement tests lead us to conclude that focus fronting involves movement of the focus XP from the gap position to its surface position, while topicalization results from base-generation of the topic XP + binding of the RP, which is the thematic argument of the verb. The evidence is summarized in ((2)): focus fronting is island-sensitive, exhibits reconstruction and cyclicity effects, and licenses *pg*s; topicalization has none of these properties.

(2)

	island-sensit.	reconstruction	cyclicity effects	*pg*-licensing	bottom
focus	✓	✓	✓	✓	gap
topic	*	*	*	*	RP

[1]Focus ex-situ expresses new information or contrast in Igbo. Focus can also be expressed in-situ and in a cleft. See Amaechi and Georgi To appear; Amaechi 2020 on the morphosyntax and use conditions of these constructions. The Igbo data in this paper come from the native speaker co-author Mary Amaechi. The following glosses are used: ACC = accusative, C = complementizer, CPL = completive aspect, DEM = demonstrative, FOC = focus marker, GEN = genitive, NEG = negation, NOM = nominative, P = preposition, PL = plural, SG = singular. Many verbs in our examples bear the *-rV*-suffix. Its vowel V assimilates to the vowel of the verb stem. The function of this suffix is debated (aspect, tense, polarity), see Amaechi 2020, ch.4.3.

The following examples illustrate these properties by contrasting ex-situ focus with topicalization. Example ((3)) shows that focus fronting is blocked from an adjunct island, while topicalization is not. Note that long focus fronting (from an embedded declarative) is well-formed in the language and thus cannot be the source of the ungrammaticality of ((3-b)).

(3) Adjunct island:

a. Úchè pụ̀-rụ̀ túpú Ézè à-hú́ Àdá
Uche leave-rV before Eze NMLZ-see Ada
"Uche left before Eze saw Ada."

b. *Àdá kà Úché pụ̀-rụ̀ túpú Ézé à-hú́ __
Ada FOC Uche leave-rV before Eze NMLZ-see
"Uche left before Eze saw ADA." *focus*

c. Àdá, Úchè pụ̀-rụ̀ túpú Ézè à-hú́ yā
Ada Uche leave-rV before Eze NMLZ-see 3SG
"As for Ada, Uche left before Eze saw her." *topic.*

Focus fronting reconstructs for instance for Principle C. Example ((4-a)) shows that it induces strong cross-over: the focused XP cannot be co-referent with the pronominal matrix clause subject, they have to be disjoint in reference. This restriction does not hold for topics, ((4-b)).

(4) Strong cross-over:

a. Àdá kà ó chè-rè nà Ézé hụ̀-rụ̀ __
Ada FOC 3SG.NOM think-rV that Eze see-rV
it is x such that *x/✓y thinks that Eze saw x *focus*

b. Àdá, ó chè-rè nà Ézè hụ̀-rụ̀ yá
Ada 3SG.NOM think-rV that Eze see-rV 3SG.ACC
as for x, ✓x/✓y thinks that Eze saw x *topic.*

Igbo exhibits several morpho-phonological reflexes of movement (Amaechi 2020, ch.4). We will illustrate one of them here: When the final TBU of the subject bears a low tone, this tone becomes high if an element Ā-moves across the subject (Tada, 1995; Manfredi, 2018). The effect is visible in all focus examples in this paper, for instance in ((1)): the declarative subject *Ézè* ends in a low tone, but when the DO is focus fronted, the subject surfaces with a final high tone (*Ézé*). Crucially, this tone change is not triggered under topicalization. Finally, focus fronting, but not topicalization, licenses *pg*s in Igbo, a hallmark of Ā-movement (Engdahl, 1985), see ((5)) (note that there is no *pro*-drop in Igbo; "to price" = *agree to mouth*).

(5) *pg*-licensing:

a. Ìtè kà Ézé kwè-rè __ ọ́nū̀ [$_{CP}$ ná āzú-ghí *pg*]
pot FOC Eze agree-rV mouth C buy-NEG
"Eze priced THE POT without buying (it)." *focus*

b. *Ìtè, Ézè kwè-rè yá ọ́nū̀ [$_{CP}$ ná āzú-ghí *pg*]
pot Eze agree-rV 3SG.ACC mouth C buy-NEG
"As for the pot, Eze priced it without buying (it)." *topic.*

To summarize our findings so far: Igbo exhibits both base-generation and movement Ā-dependencies; the former terminate in an RP, while the latter require a gap.

3 RPs in movement dependencies

That focus fronting leaves gaps does not only hold for direct objects but also for subjects, indirect objects and adjuncts (see Amaechi and Georgi 2019). [2] However, once we consider other grammatical functions, even focus fronting can leave RPs. In fact, an RP becomes obligatory when one of the following four elements is focus fronted (as first noticed in Goldsmith 1981 for three of these contexts):[3] the complement of a preposition (CompP, see ((6-b))), a possessor (Poss, see ((7-b))), a conjunct (Conj, see ((8-b))), or an XP that a focus-sensitive particle associates with (FSP-XP, see ((9-b))). Note that any of the conjuncts in ((8-b)) can be fronted. The case of the obligatory RP is either accusative (CompP, Conj, FSP-XP) or genitive (Poss) and corresponds to the case generally assigned to these positions.

(6) a. Ézè kwè-rè [$_{PP}$ nà Àdá]
Eze believe-rV P Ada
"Eze believes in Ada."

b. Àdá kà Ézé kwèr-è [$_{PP}$ nà **yá** / *__]
Ada FOC Eze believe-rV P 3SG.ACC
"Eze believes in ADA." *CompP focus*

(7) a. Ézè hụ̀-rụ̀ [ńkìtā Àdá]
Eze see-rV dog Ada
"Eze saw Ada's dog."

b. Àdá kà Ézé hụ̀-rụ̀ [$_{NP}$ ńkị̀tā **yā** / *__]
Ada FOC Eze see-rV dog 3SG.GEN
"Eze saw ADA's dog." *Poss focus*

(8) a. Ézè hụ̀-rụ̀ [$_{\&P}$ Òbí nà Àdá]
Eze see-rV Obi and Ada
"Ézè saw Àdá and Obi."

b. Àdá kà Ézé hụ̀-rụ̀ [$_{\&P}$ Òbí nà **yá** / *__]
Ada FOC Eze see-rV Obi and 3SG.ACC
"Ézè saw Obi and ÀDÁ." *Conj focus*

(9) a. Ézè hụ̀-rụ̀ [$_{NP}$ sọ́ọ́sọ̀ Àdá]
Eze see-rV only Ada
"Eze saw only Ada."

b. Àdá kà Ézé hụ̀-rụ̀ [$_{NP}$ sọ́ọ́sọ̀ **yá** / *__]
Ada FOC Eze see-rV only 3SG.ACC
"Eze saw only ADA." *FSP-XP focus*

The question is whether focus fronting that leaves behind an RP has the same syntactic derivation (viz., Ā-movement) as the gap examples from section 2. One might hypothesize that at least some of the four RP-contexts could be islands (&Ps, PPs) and thus block movement. The language might then resort to a base-generation dependency as a repair.

[2] We need to mention, though, that subjects cannot undergo movement to the edge of the minimal clause but have to stay in their canonical position SpecT, see Amaechi and Georgi 2019; Amaechi 2020 for evidence. Subjects can undergo long-distance focus fronting, however, and then they leave a gap.

[3] While Goldsmith (1981) does not mention the FSP-XP context, he lists a different one: the embedded subject position. When the embedded subject is extracted long-distance, a *that*-trace configuration arises, and one way to repair it is by realizing an RP in this position. Goldsmith, who pursues a base-generation approach to focus fronting (in conflict with the evidence presented in this paper) does not provide an explanation for why these four contexts require an RP in Igbo, he simply lists them as being exempt from a pro-deletion rule (p.386) that produces gaps. Sells (1984, ch.4), who reanalyses Goldsmith's data, proposes that RPs in Igbo occur in positions that are not governed; this requires the stipulation that CompP in Igbo is not governed.

This would also explain the presence of the RP here. However, when we apply movement diagnostics, the focus fronting dependencies with RPs in ((6-b))–((9-b)) turn out to involve movement just like their gap counterparts, see the extended version of ((2)) in ((10)) (we added the bold-faced line 2 for focus fronting that leaves RPs).

(10)

	island-sensit.	reconstruction	cyclicity effects	*pg*-licensing	bottom
focus	✓	✓	✓	✓	gap
focus	✓	✓	✓	✓	RP
topic	*	*	*	*	RP

The following examples illustrate these properties. Focus fronting that terminates in an RP is island-sensitive (see ((11))), reconstructs (for example, it induces strong cross-over effects, see ((12))), licenses *pg*s (see ((13))) and exhibits cyclicity effects (the final tone of the subject *Ézè* must be high in ((12)) and ((13))). For reasons of space we only illustrate this for CompP, but the facts hold for all four RP-requiring contexts.

(11) Adjunct island, focus fronting of CompP:
*Àdá kà Úché pụ̀-rụ̀ túpú Ézé è-kwù màkà yá
Ada FOC Uche leave-rV before Eze NMLZ-talk about 3SG.ACC
"Uche left before Eze talked about ADA."

(12) Strong cross-over, focus fronting of CompP:
Àdá kà ó chè-rè nà Ézé kwè-rè nà yá.
Ada FOC 3SG.NOM think-rV that Eze believe-rV P 3SG.ACC
it is x such that *x/✓y thinks that Eze believes in x

(13) *P*g-licensing, focus fronting of CompP:
Ákwúkwọ̄ kà Ézé kwú-rú màkà yá [$_{CP}$ ná āgú-ghí *pg*]
book FOC Eze talk-rV about 3SG.ACC C read-NEG
"Eze talked about THE BOOK without having read (it)."

Note that the facts described in this section (movement usually leaves gaps, but requires an RP in the four contexts ((6-b))–((9-b))) hold for *all* movement dependencies in Igbo, also for wh-movement and relativization. We can draw two conclusions from these facts. The first is that Igbo has two types of resumption: there are RPs that occur at the bottom of base-generation Ā-dependencies (topicalization) and RPs that terminate movement dependencies (focus fronting). The second type is more restricted in that it surfaces only in certain positions (such as CompP), whereas base-generated RPs also occur when core arguments of the verb are topicalized. It has been argued before that base-generation and movement RPs can co-exist in a single language, see among others Aoun et al. 2001 on Lebanese Arabic, Bianchi 2004 on Italian and Hebrew, Sichel 2014 on Hebrew, Korsah and Murphy 2019 on Asante Twi, and Scott To appear on Swahili. We can now add Igbo to this list. What makes Igbo special in comparison to those other languages is that it is the first language for which we have comprehensive evidence from all major movement tests for the split of RPs into two groups, viz., from island-sensitivity, reconstruction effects, *pg*-licensing and cyclicity effects. In the aforementioned languages (and in the resumption literature in general, see Salzmann 2017, ch. 3.1) only a subset of these tests have been applied (usually reconstruction). Often not all of the tests *can* be applied: many of these languages do not exhibit cyclicity effects

in the first place; and if RPs repair islands, island-sensitivity cannot be used as a test for movement anymore.

The second conclusion we can draw from the facts reported in this section is that RPs in movement dependencies in Igbo do not have the capacity to repair islands, unlike in many other languages with movement RPs (e.g., Asante Twi, see Korsah and Murphy 2019). Consider ((11)): extracting the complement of a preposition from an adjunct island results in ungrammaticality even with the obligatory RP, just like in cases where focus fronting leaves a gap (compare ((3-b))). This in turn means that PPs, NPs and &Ps are not islands for subextraction in Igbo. That movement is involved in the four RP-contexts is also supported by the other movement tests. We return to islandhood in Igbo in section 5.

4 Analysis

The questions that arise from the Igbo data in section 3 are: (a) How we can model the occurrence of RPs (vs. gaps) in movement dependencies? (b) Why do such RPs occur only in a few contexts (e.g., CompP). A prominent analysis of RPs in positions such as CompP or Poss is that the containing XPs are islands, and the RP must occur to repair the island, see among others Boeckx 2003; Müller 2014. However, we have already refuted the hypothesis that the XPs from which subextraction requires an RP are islands in Igbo. Such an approach would also leave unexplained why only some islands such as PPs can be repaired, while others such as adjuncts cannot. What seems more fruitful are spell-out approaches to resumption where the RP realizes (a subpart of) a trace/lower copy of movement. We will follow the basic implementation of this view in Pesetsky 1998; Landau 2006 and sketch the basic idea. Adopting the copy theory of movement, whether and how a lower copy is pronounced is determined by (at least) two PF-constraints that interact in an optimality-theoretic fashion, see ((14)): a general economy constraint (Econ) demands the deletion of lower copies (resulting in a gap), while a recoverability constraint (P-Rec) requires positions with certain properties (abbreviated as P) to be pronounced.

(14) a. P-Recoverability (P-Rec, Landau 2006, 56): In a chain $< X_1 \ldots X_i \ldots X_n >$, where some X_i is associated with phonetic content, X_i must be pronounced.

b. Economy (Econ, see Landau 2006, 57): Delete all chain copies at PF.

Under the ranking P-Rec $\gg$ Econ it follows that we get full copy deletion (viz., gaps) unless the copy is in a position with property P, then it is pronounced. But why is the copy pronounced as a pronoun (RP) and not as a full DP-copy? The idea is the following: even when P-Rec enforces realization of a copy, the effect of Econ is that it wants the spelled-out element to be as minimal as possible (which in fact requires Econ to be gradient, as pointed out in Pesetsky 1998, 31). And the minimal representation of a DP is assumed to be a pronoun (minimal form that expresses ϕ-features). Thus, when a position has a property P, a subpart of the copy is deleted to fulfill Econ as much as possible (= partial deletion). See van Urk 2018 for an implementation of, and cross-linguistic variation in partial deletion. We adopt this analysis of RPs in movement dependencies for Igbo.

The issue that remains is what the properties P are that enforce a realization of a subpart of the lower DP-copy in the four RP-requiring contexts in Igbo (CompP, Poss, Conj, FSP-XP). As for CompP, it is well-known that there is a split between languages that allow for P-stranding and those that do not (see, e.g., Abels 2012, ch.7). We take Igbo to belong to the latter group: at PF an element that is part of the PP-constituent must follow P. This is violated when CompP is extracted, and the pronounciation of the trace as an RP avoids this violation. We now turn to Poss. Possession (as well as other relations between two nominals) is expressed by the associative construction in Igbo, where, on the surface, two nouns seem to be juxtaposed. It has been argued in the literature on this construction that the two nouns are linked by a functional projection in the syntax (Goldsmith, 1976; Clark, 1990), which is realized by a floating high tone (= genitive exponent). Clark argues that the head of this projection is a preposition. The structure of a possessed noun N_1 is thus as follows (N_2 = possessor): $[_{NP}\ N_1\ [_{PP}\ P\ N_2\ ]]$. Hence, the Poss case can be subsumed under the CompP case: both lead to P-stranding, which is repaired at PF by the insertion of an RP.

As for the FSP-XP, the crucial observation is that the FSP must always be (left-)adjacent to the XP that it associates with; the FSP cannot associate with an XP in its c-command domain at a distance in Igbo. Now, when a phrase XP is extracted and strands an FSP, there is a danger that the FSP re-associates with the phrase YP that happens to be adjacent to it after XP-extraction. Take, for instance, a ditransitive verb: if an FSP is associated with the indirect object (IO) and the IO is extracted, the FSP would be linearly adjacent to the following DO (if the extracted IO left a gap). Thus, it would re-associate with the 'wrong' XP. To preserve the intended IO-association, an RP is pronounced after the FSP.

Finally, consider Conj. We propose that there is a (universal) PF-requirement that demands the pronounciation of conjuncts, viz., prohibits that a conjunct is null; something must be pronounced in Conj-position. Evidence for such a requirement comes from the following observations: (a) Even in *pro*-drop languages a pronominal conjunct cannot be dropped, even if the pragmatic conditions are met, see ((15)) from Italian subject *pro*-drop:[4]

(15) Subject *pro*-drop in Italian blocked for conjuncts (see Cardinaletti and Starke 1996):

a. *pro* ha preparato la cena	b. *[$_{\&P}$ *pro* e Gianni] hanno preparato la cena
has prepared the dinner	and Gianni have prepared the dinner
"He prepared dinner."	"S/he and Gianni prepared dinner."
(*pro* identified in discourse)	(impossible even if *pro* can be identified)

The same is true for a number of other *pro*-drop languages, at least for Armenian, Greek, Spanish, Portuguese, Romanian, Bosnian-Serbo-Croatian, Polish, Czech and Hungarian (based on a survey with native speakers). (b) We observe for a number of languages that while extraction from a certain position X in language L can/must leave a gap, an RP is required if X is occupied by a &P and we subextract one of its conjuncts. For instance, DO-relativization in Swiss German leaves gaps and prohibits RPs; but when a conjunct is extracted from a DO-&P, an RP is required (see Salzmann 2017, 337,354). The same holds for Czech (Toman,

[4]Even though the NP-conjunction is homophonous with the preposition *nà*, we cannot subsume the Conj cases under the CompP case: &Ps are not comitatives in Igbo by any of the tests in Haspelmath 2007.

1998), Slovene (Hladnik, 2015), Irish (McCloskey, 1990), Polish (Bondaruk, 1995). To summarize, PPs, NPs and &Ps allow subextraction in Igbo. Gaps in the extraction sites are out not for syntactic but for PF-reasons: various PF-principles require the pronunciation of these positions.

5 Islandhood in Igbo

The evidence in section 3 shows that PPs, &Ps and NPs are not islands in Igbo. In this section we further investigate islandhood and provide evidence for the claim that the two parts of the Coordinate Structure Constraint must be separated. We propose that &Ps are not syntactic islands, and that the true islands in Igbo qualify as adjuncts.

In what follows we study four classic island contexts: the Condition on Extraction Domains (CED, Huang 1982, subsuming subject and adjunct islands, see among others Ross 1967; Chomsky 1973), complex NPs (CNP) and coordination (&P) islands (Ross 1967). Starting with adjuncts, we have already seen that adjunct clauses are islands. In fact, all adjuncts are islands in Igbo. Consider PPs, for instance. In all of our previous examples of CompP-extraction the PP was an argument (DO). But if we use a PP as an adjunct, subextraction of CompP leads to ungrammaticality, even with the RP, see ((16)).

(16) a. Ézè hụ̀-rụ̀ Àdá n'-àhíā
Eze see-rV Ada P-market
"Eze saw Ada at the market."

b. *Àhíā kà Ézé hụ̀-rụ̀ Àdá nà yá
market FOC Eze see-rV Ada P 3SG.ACC
"Eze saw Ada at the MARKET." *PP-adjunct*

CNPs have already been shown to be islands in Igbo, see Goldsmith 1981, 380, Uwalaka 1991, 194, Amaechi 2020, 35 on relative clauses (RCs), and Ogbulogo 1995, 170,182 on noun complement clauses. Examples ((17-a)) and ((17-b)) illustrate this for extraction of the embedded DO (the sentences remain ungrammatical when we use an RP instead of a gap; the corresponding declaratives with the focused XP in-situ and without *kà* are grammatical). Extraction from the four RP-contexts ((6-b))–((9-b)) is also impossible from CNPs.

(17) DO-extraction from a complex NP:

a. *Àdá$_2$ kà Úché mà nwókē [$_{CP}$ OP$_1$ __$_1$ hū̀-rū̀ __$_2$ n'-àhíā]
Ada FOC Uche know man see-rV P-market
"Uche knows the man who saw ADA at the market." *RC*

b. *Àdá kà ànyí nù̀-rù̀ ákū́kó́ [$_{CP}$ nà Ézé hù̀-rù̀ __ n'-àhíā]
Ada FOC 1PL hear-rV news that Eze see-rV P-market
"We heard the news that Eze saw ADA at the market." *noun complement CP*

Next, we turn to extraction from subjects, which are usually subsumed under the CED with adjuncts. In all our previous examples, we illustrated subextraction from XPs in DO-position. We now put the RP-requiring contexts in subject position and check whether subextraction is still possible. Examples ((18)) illustrates this for long extraction of Poss and FSP-XP (&P-extraction will be discussed below; PPs cannot be subjects in Igbo). In fact, the result is grammatical. We use long extraction here to show that these dependencies also involve

movement, since they trigger the tonal reflex (change from final low to high tone) on the matrix subject *Úchè* (bold-faced). Hence, subjects are not per se islands in Igbo.[5]

(18) Focus fronting from an (embedded) subject:

a. Úchè chè-rè [$_{CP}$ nà [$_{NP}$ ńkị̀tā Ézè] hụ̀-rụ̀ Àdá]
Uche think-rV that dog Eze see-rV Ada
"Uche thinks that Eze's dog saw Ada." *Poss, declarative*

b. Ézè kà **Úché** chè-rè [$_{CP}$ nà [$_{NP}$ ńkị̀tā yā] hụ̀-rụ̀ Àdá]
Eze FOC Uche think-rV that dog 3SG.GEN see-rV Ada
"Uche thinks that EZE's dog saw Ada." *Poss focus*

c. Úchè chè-rè [$_{CP}$ nà [$_{NP}$ sọ̀ọ́sọ̀ Ézè] hụ̀-rụ̀ Àdá]
Uche think-rV that only Eze see-rV Ada
"Uche thinks that only Eze saw Ada." *FSP-XP, declarative*

d. Ézè kà **Úché** chè-rè [$_{CP}$ nà [$_{NP}$ sọ̀ọ́sọ̀ yá] hụ̀-rụ̀ Àdá]
Eze FOC Uche think-rV that only 3SG.ACC see-rV Ada
"Uche thinks that only EZE saw Ada." *FSP-XP focus*

The picture is more complicated, however. While NP-subjects are transparent for subextraction, clausal subjects block all extractions (with a gap or an RP), regardless of the GF of the extractee. This is illustrated in ((19)), an attempt to focus front the DO of the CP-subject.

(19) Subextraction from a clausal subject:

a. [Nà Ézè hụ̀-rụ̀ Àdá] wèrè ḿ ányá
that Eze see-rV Ada clear 1SG.ACC eye
"That Eze saw Ada is obvious to me." *declarative, (Nwachukwu, 1987, 66)*

b. *Àdá kà [nà Ézé hụ̀-rụ̀ __] wèrè ḿ ányá
Ada FOC that Eze see-rV clear 1SG.ACC eye
"That Eze saw ADA is obvious to me." *focus of embedded DO*

We thus see a split in subjects: clausal subjects are islands, but NP-subjects are not.
Finally, we turn to coordination islands. Ross's (1967) Coordinate Structure Constraint (CSC) has two parts: the first blocks the extraction of entire conjuncts, the second prohibits subextraction from a conjunct. In our previous &P-examples we extracted conjuncts, which were simple proper names. But extraction is also possible with more complex conjuncts, for instance with an NP containing an adjective and a determiner, see ((20)). The example also illustrates that conjuncts can be extracted when the &P is a subject, as with CompP and FSP-XPs. Thus, the first part of the CSC does not hold in Igbo: conjuncts can be extracted.

[5]The tone change from low tones to downstep on the verb of the relative clause in ((17-a)) is another reflex of movement in Igbo. It arises when the subject undergoes movement and only affects the verb in the clause where the subject originates. Note also the final high tone on crossed over subjects does not arise on (subparts of) a moving subject itself, hence, we do not see the effect on the fronted (subpart) of the subjects in ((18)). See Amaechi 2020, ch.4 for more data and an analysis of these two reflexes that captures their distribution.

(20) ágáádī nwáànyị́ áhụ̀ kà **Úché** chèrè [$_{CP}$ nà [$_{\&P}$ Ézè nà yá] hụ̀-rụ̀ Àdá]
old woman DEM FOC Uche think that Eze and 3SG.ACC see-rV Ada
"Uche thinks that Eze and THE OLD WOMAN saw Ada."

The second part of the CSC does hold, however: subextraction from a conjunct is impossible in Igbo, regardless of what is extracted. Consider the contrast between ((21-a)) (coordination of nouns in CompP-position) with ((21-b)) (PP-coordination). Extraction of one of the nouns is possible in ((21-a)) (since we extract an entire conjunct), but not in ((21-b)) (since we subextract from a conjunct). Example ((21-a)) also shows that the RP-requiring contexts in Igbo can in principle be stacked (here PP and &P; ((21-c)): CompP-Poss stacking) and still allow for subextraction – though only as long as the second part of the CSC is not violated.

(21) a. Òbí kà Ézé kwè-rè nà [$_{\&P}$ Àdá nà yá]
Obi FOC Eze believe-rV P Ada and 3SG.ACC
"Eze believes in Ada and OBI." *N(P)-coordination, ✓extraction of N*

b. *Òbí kà Ézé kwè-rè [$_{\&P}$ [$_{PP}$ nà Àdá] nà [$_{PP}$ nà yá]]
Obi FOC Eze believe-rV P Ada and P 3SG.ACC
"Eze believes in Ada and in OBI." *PP-coordination, ∗extraction of N*

c. Òbí kà Ézé kwè-rè nà [ńkịtā **yā**]
Obi FOC Eze believe-rV in dog 3SG.GEN
"Eze believes in OBI'S dog." *subextraction of Poss from CompP*

Thus, the coordination data from Igbo provide further support for the claim that the two parts of the CSC need to be separated: only subextraction from conjuncts is banned, while the extraction of conjuncts is possible. The same split has been reported for other languages, see Grosu 1973; Postal 1993 on English, Stjepanović 2014; Bošković To appear on Bosnian-Serbo-Croatian (BSC), Oda 2017 on Japanese, Korean and several Slavic languages. To summarize, among the classic islands, only adjuncts, complex NPs, clausal subjects, and conjuncts from which something is subextracted seem to be islands in Igbo.

Is there anything that the XPs that block subextraction in Igbo have in common? In what follows, we suggest that &Ps are not syntactic islands at all, while the remaining true islands can be subsumed under adjunct islands in Igbo (and potentially more generally). First of all, we will remove &Ps from the set of islands in Igbo. As we have argued above, &Ps are transparent for the extraction of conjuncts; the gap derivations are ruled out by a general PF-constraint. As for subextraction from conjuncts, it has been argued that this is also not due to a syntactic constraint, but rather to a representational LF-constraint that demands that the conjuncts have the same semantic type, see Munn 1993; Reich 2009. Taken together, these facts suggest that &Ps are not islands for syntactic movement at all. The restrictions arise either at PF (conjunct extraction) or at LF (subextraction).[6]

[6]Oda (2017), following ideas in Bošković 2011, suggests that &Ps are islands for conjunct extraction, but they can be "unlocked" if the &-head cliticizes to the first conjunct. The &-head is then a trace and, according to Boskovic, traces do not head islands. There is, however, no support for the cliticization of the conjunction in Igbo &Ps: clitics in the language (e.g., pronominal ones) undergo [ATR]-harmony with their host, but the *nà* conjunction does not harmonize with any of the conjuncts. Moreover, cliticization to the first conjunct leaves open why also the second conjunct can be extracted in Igbo, a general problem Oda also notes.

What remains are adjuncts, clausal subjects and CNPs. We propose that all of them qualify as adjunct islands. Consider CNPs first. That relative clauses are adjuncts is the traditional, standard view; for example, they pattern with adjuncts in terms of reconstruction, meaning they can be merged late (Freidin-Lebeaux-generalization; see, e.g., Freidin 1986). Complement clauses to nouns have also been argued to involve relativization and hence adjunction, at least in some languages (see de Cuba 2017 for an overview of the discussion); Stowell (1981) also argues against treating these clauses as complements to N.

Turning to subjects now, we have to explain the difference between NP- and clausal subjects. It is well-known that clausal subjects have a more restricted distribution than NP-subjects (see Lohndal 2014 for an overview of the discussion on English). For example, they cannot participate in subject-auxiliary inversion in English, unlike NP-subjects. This has lead researchers to conclude that clausal subjects do not originate in the vP, but are base-generated in a position in the CP-domain (with disagreement on the exact position). The CP-subject is linked to a null pronoun in the θ-marked subject position inside the vP; NP-subjects are base-merged in this vP-internal position. In fact, we find differences between NP- and CP-subjects in Igbo, too. For example, an (in)direct object can be fronted across an NP-subject (see ((22-a))), but not across a CP-subject (see ((22)), based on ((19-a))).

(22) a. Mú kà solution áhụ̀ wèrè __ ányá
1SG.ACC FOC solution DEM clear eye
"The solution is obvious to ME."

b. *Mú kà [nà Ézè hụ̀-rụ̀ Àdá] wèrè __ ányá
1SG.ACC FOC that Eze see-rV Ada clear eye
"That Eze saw Ada is obvious to ME."

If we define adjuncts as XPs that originate in non-θ-marked positions (vs. arguments that receive a θ-role in their base position), CP-subjects qualify as adjuncts: they are not assigned a θ-role in their base position in the C-domain, only the null pronoun inside the vP does (just like an NP-subject). In line with this view, it has also been observed that subextraction is easier from vP-internal subjects than from vP-external ones (see, e.g., Müller 2010 for discussion). We conclude that only adjuncts (non-θ-marked XPs) are true islands in Igbo, including CNPs and CP-subjects, while arguments are transparent for subextraction.

The Igbo facts raise the question what the source of cross-linguistic variation in islandhood is: Why are PPs and &Ps islands for all kinds of extraction for example in German but not in Igbo? The view advocated here suggests that the (universal) set of islands is rather small, and may be reducible to adjuncts. That we find restrictions on the extraction from arguments in some languages must then be due to additional (potentially non-syntactic) constraints active in these languages. For proposals of such conditions on extraction from PPs, NPs and &Ps, see among others Abels 2012; Bošković 2014, who basically attribute the effect to the varying internal complexity of these constituents across languages.

6 Conclusion

We have argued that two types of resumption have to be distinguished in Igbo: RPs can terminate base-generation as well as movement dependencies. The evidence is more comprehensive than in previous studies of other languages, including not only reconstruction and island tests, but also cyclicity effects and *pg*-licensing. Movement-RPs are restricted to contexts in which the extraction site is contained in a PP, NP or &P (conjunct). We pursued a spell-out approach to movement-RPs in Igbo along the lines of Pesetsky 1998; Landau 2006. This study has also shown that the set of islands in Igbo is rather small. We proposed that &Ps are not syntactic islands at all, and that true islands in Igbo all qualify as adjuncts.

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