Salvation by Deletion in Nupe

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Abstract

This article presents novel data from ellipsis in Nupe, a Benue-Congo language of Nigeria, and explores its theoretical implications. Three claims are made. First, sluicing in Nupe counter-exemplifies Merchant 2001's Sluicing-COMP Generalization. Second, ungrammatical outputs resulting from extraction from perfect clauses are salvaged by ellipsis, arguing against Kandybowicz's (2009) analysis where such a restriction is a narrow syntactic derivational constraint. Third, COMP-trace effects in Nupe are also repaired under ellipsis, lending support to Kandybowicz's (2009) claim that the Nupe COMP-trace effect is an interface phenomenon. Our findings provide evidence for the claim that ellipsis can repair certain otherwise ill-formed structures.

Keywords: Nupe, ellipsis, Sluicing-COMP Generalization, extraction asymmetry, salvation by deletion, Cyclic Linearization

1 Introduction

In this paper, we bring a handful of novel facts from Nupe, a Benue-Congo language spoken in South Central Nigeria, to bear on the cross-linguistic realization of sluicing (Merchant 2001), the

nature of locality constraints on movement (Kandybowicz 2009), and the existence of salvation by deletion effects (Ross 1969).

The paper has three independent sections with sluicing, and more generally clausal ellipsis, as the unifying theme. We start by introducing sluicing constructions in Nupe, showing that they violate Merchant's (2001) Sluicing-COMP Generalization, and adopt Baltin's (2010) proposal according to which sluicing is FinP ellipsis rather than TP ellipsis. Then, using sluicing data and other similar types of clausal ellipsis, we investigate the nature of two extraction asymmetries on movement in Nupe examined in Kandybowicz 2009, namely, the ban on $\bar{A}$-extraction of *v*P-internal material in perfect clauses and COMP-trace effects. We demonstrate that ungrammatical outputs in each case can be repaired under ellipsis. We argue that Kandybowicz's interface analysis of Nupe COMP-trace effects can accommodate the repair effects, whereas his derivational analysis of the restriction on *v*P-internal $\bar{A}$-extraction in perfect clauses cannot. Rather than viewing the latter restriction as a derivational constraint, we propose that the extraction asymmetry is rooted in the mapping from syntax to PF. We offer an analysis of the Nupe perfect island that is grounded in an implementation of Cyclic Linearization (Fox and Pesetsky 2005a,b), in which *v*P is treated as a spell-out domain rather than VP (Ko 2005, 2007, 2014).

2 Nupe Sluicing and the Sluicing-COMP Generalization

In this section we introduce Nupe sluicing constructions and adopt the view that sluicing is typically achieved through FinP ellipsis (Baltin 2010). Because Nupe lacks embedded questions (Kandybowicz 2020), all of the examples that we discuss in this section and in the rest of the paper are instances of matrix sluicing.

Merchant 2001 (section 2.2.2) presents a cross-linguistic generalization he dubs Sluicing-COMP, according to which, "in sluicing, no nonoperator material may appear in COMP". The following data set exemplifies the pattern in Brazilian Portuguese, where a complementizer that can follow a moved *wh*-phrase, see (1), cannot appear under sluicing (similar facts are found in Danish, Norwegian, Frisian, Dutch varieties, and Irish):

(1) Quem (que) saiu?
who COMP left
'Who left?'

(2) A: Alguém saiu.
someone left
'Someone left.'
B: Quem (*que)?
who COMP
'Who?'

Likewise, auxiliaries that appear in C in matrix *wh*-questions, as in (3) in English, do not show up in sluicing constructions, as shown in (4B) (similar facts are found in Frisian, German, Dutch, Danish, Norwegian, Swedish, Yiddish, and Icelandic).

(3) Who will Mary kiss?

(4) A: Mary will kiss someone.
B: Who (*will)?

In Nupe, *wh*-questions involve the obligatory presence of a sentence-final focus particle ((5) and (7)).[1] Crucially, we can see in the following examples (6B, 8B) that the focus particle survives sluicing (in both argument and adjunct instances), providing a counter-example to the Sluicing-COMP Generalization:[2]

(5) Ké Musa pa *(o)?
what Musa pound.PST FOC
'What did Musa pound?'

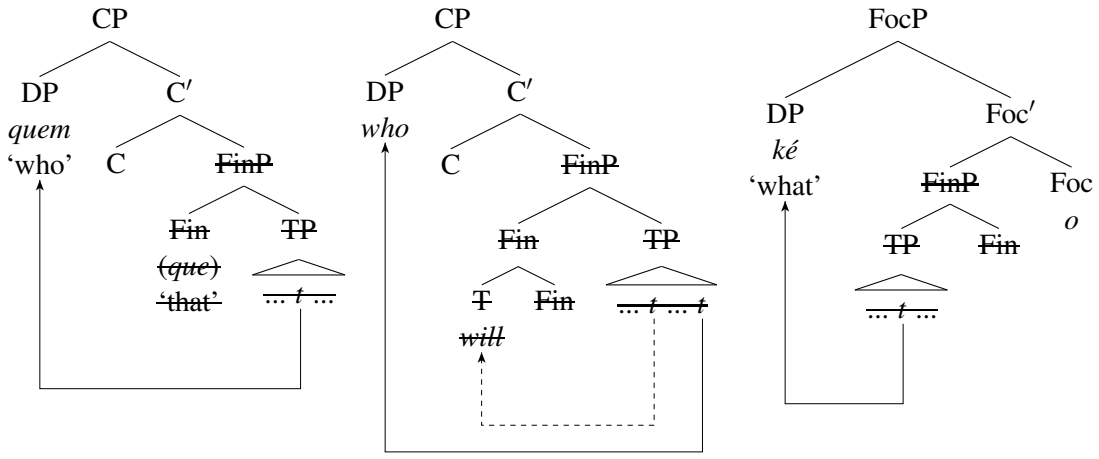
(6) A: Musa pa ejan ndoci.
Musa pound.PST thing certain
'Musa pounded something.'
B: Ké *(o)?
what FOC
'What ~~did Musa pound~~?'

(7) Kánci Musa pa eci *(o)?
when Musa pound.PST yam FOC
'When did Musa pound the yam?'

(8) A: Musa pa eci kámi ndoci.
Musa pound.PST yam time certain
'Musa pounded the yam sometime.'
B: Kánci *(o)?
when FOC
'When ~~did Musa pound the yam~~?'

According to Baltin 2010, the cross-linguistic facts can be accommodated if we assume Rizzi's (1997) split CP hypothesis and analyze sluicing as FinP deletion instead of TP deletion (e.g. [$_{\text{ForceP}}$ [$_{\text{TopP}}$ [$_{\text{FocP}}$ ~~[$_{\text{FinP}}$ [$_{\text{TP}}$]]~~]]]). Specifically, complementizers that disappear under sluicing in languages like Brazilian Portuguese are located in Fin and are therefore swallowed by ellipsis. Likewise, if T-to-C movement in English targets Fin, T also remains in the ellipsis site.[3] Focus particles like *o* in Nupe are located higher than FinP, in Foc, and therefore survive FinP deletion. We adopt this view in this article.[4]

(9) *Brazilian Portuguese* *English* *Nupe*



The contrast between languages like Brazilian Portuguese, and possibly languages like English, on one side, and languages like Nupe, on the other, thus reduces to the positioning of the C element. This proposal predicts that languages that invoke focus markers for *wh*-movement will consistently violate the Sluicing-COMP Generalization. Gungbe, discussed by Baltin (2010) to justify this proposal is also, like Nupe, a language of this type. Other *wh*– focus movement languages where this prediction could be tested include Yoruba (Adesola 2005), Krachi (Torrence and Kandybowicz 2015), and Ikpana (Kandybowicz, Obi, Duncan, and Katsuda to appear), among many others.

The final remark about Nupe sluicing that we make in this introductory section is related to *else*-modification. The particle *be*, which we identify with the English word *else*, does not form a constituent with the *wh*-element (10). *Be* 'else' is a right edge particle and, like the focus marker *o*, also survives sluicing (11B).[5]

(10) Ké Musa pa *t* be o?
what Musa pound.PST else FOC
'What else did Musa pound?'

(11) A: Musa pa eci.

Musa pound.PST yam

'Musa pounded the yam.'

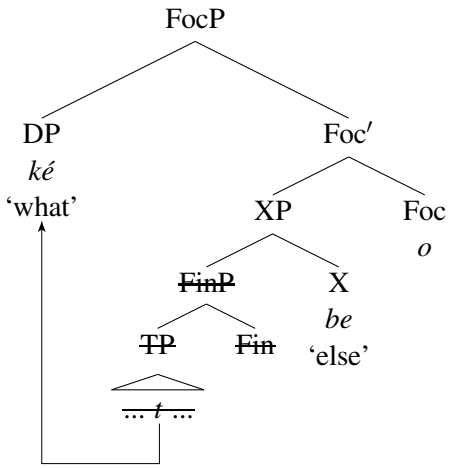
B: Ké be o?

what else FOC

'What else ~~did Musa pound~~?'

We tentatively assume that *be* 'else' is located in a projection between FocP and FinP, generically labeled as XP, and thus also survives FinP deletion.[6]

(12)



We turn now to two cases where clausal ellipsis neutralizes extraction asymmetries in Nupe.

3 Leaving the Perfect Island

In this section, we present a novel case of salvation by deletion, related to the extraction restriction in perfect clauses in Nupe (Kandybowicz 2009). The phenomenon will allow us to directly compare two approaches to phasal domains, namely the Cyclic Linearization framework (Fox and Pesetsky 2005a,b) and the Phase Impenetrability Condition (Chomsky 2000, 2001). We start this section with a brief summary of the analysis of the restriction presented in Kandybowicz 2009. We then show that ellipsis can repair the otherwise illicit movement, and present an analysis in terms

of Cyclic Linearization.

3.1 Analysis and Repair

In Nupe, there is an extraction restriction in perfect clauses. While Ā-extraction of subjects (13a) and TP-level adverbs (13b) is possible, extraction of *v*P-internal material (e.g. complements (13c)-(13d), low adjuncts, and material inside clausal complements (13e)-(13f)) is not. This asymmetry is exemplified in (13).[7]

(13) a. Zĕ á eci pa o?
who PRF yam pound.PST FOC
'Who has pounded the yam?'

b. Pányí lĕ *t* Musa á nakàn ba karayín o.
long ago formerly Musa PRF meat cut.PST carefully FOC
'LONG AGO, Musa had cut the meat carefully.'

c. *Ké Musa á *t* pa o?
what Musa PRF pound.PST FOC
Intended: 'What has Musa pounded?'

d. *Zĕ Musa á *t* yà èwò o?
who Musa PRF give.PST garment FOC
Intended: 'Who has Musa given the garment to?'

e. *Bà-bo Musa á le *t* o?
where-LOC Musa PRF sleep.PST FOC
Intended: 'Where has Musa slept?'

f. *Karayín pányì lĕ Musa á nakàn ba *t* o.
carefully long ago formerly Musa PRF meat cut.PST FOC
Intended: 'Long ago, Musa had cut the meat CAREFULLY.'

The contrast between extraction from perfect and nonperfect clauses is exemplified in (14) with

object extraction. In past (14a), present (14b), and future (14c) tensed clauses, object extraction is possible. The same extraction is unavailable in perfect clauses (14d).

(14) a. Ké Musa pa *t* o?
what Musa pound.PST FOC
'What did Musa pound?'

b. Ké Musa è pa *t* o?
what Musa PRES pound FOC
'What is Musa pounding?'

c. Ké Musa à pa *t* o?
what Musa FUT pound FOC
'What will Musa pound?'

d. *Ké Musa á *t* pa o?
what Musa PRF pound.PST FOC
Intended: 'What has Musa pounded?'

Kandybowicz (2009) notes that in perfect clauses, accusative objects precede the verb (15a), whereas in nonperfect clauses, the verb precedes its arguments (15b) as well as nonaccusative selected VP-internal material such as locative elements (15c).

(15) a. Musa á dukùn si.
Musa PRF pot buy.PST
'Musa has bought the pot.' [O≺V]

b. Musa è/à si dukùn.
Musa PRES/FUT buy pot
'Musa is buying/will buy the pot.' [V≺O]

c. Musa á le kata-o.
Musa PRF sleep.PST room-LOC
'Musa has slept in the room.' [V≺LOC]

To account for these two facts, Kandybowicz (2009), following Kandybowicz and Baker 2003, assumes that accusative objects are licensed in an Agr_O projection between *v* and VP. In nonperfect clauses, V raises to *v* giving rise to the [V≺O] word order (16b). In perfect clauses, on the other hand, V is prevented from moving to *v* because that position is already occupied by the perfect morpheme, giving rise to the [O≺V] word order (17b).[8]

(16) a. Musa si dùkùn.
Musa buy.PST pot
'Musa bought the pot.'

b. [$_{v\text{P}}$ Musa **si** [$_{\text{Agr}_\text{O}\text{P}}$ dùkùn *t* [$_{\text{VP}}$ *t* *t*]]].
Musa buy.PST pot
'Musa bought the pot.'

(17) a. Musa á dùkùn si.
Musa PRF pot buy.PST
'Musa has bought the pot.'

b. [$_{v\text{P}}$ Musa á [$_{\text{Agr}_\text{O}\text{P}}$ dùkùn **si** [$_{\text{VP}}$ *t* *t*]]].
Musa PRF pot buy.PST
'Musa has bought the pot.'

With this in mind, let us consider Kandybowicz's analysis of the extraction restriction in Nupe perfect clauses. The basic intuition here is that perfect *v*Ps do not allow successive-cyclic movement and thus Ā-extraction of *v*P-internal material will always be "too long". How to implement

"too long" here is an issue that we will return to momentarily. Kandybowicz observes that the extraction restriction in perfect clauses in Nupe is at odds with Chomsky's conjecture that edge-features are inherent properties of strong phase heads (Chomsky 2007, 2008), which would always allow cyclic movement. Kandybowicz's insights are that the extraction restriction in perfect clauses arises when the verb is prevented from moving to *v* and that edge-features have to be activated by Agree. In our case, the relevant Agree relation would be the one established between *v* and V as a precondition on moving V to *v* in nonperfect clauses. In nonperfect clauses, the edge-feature of *v* is activated and extraction of *v*P-internal material can proceed successive-cyclically through the edge of the *v*P. In perfect clauses, where V does not raise to *v*, *v* does not enter into an Agree relation with V and, as a result, its edge-feature is not activated. This gives rise to the extraction restriction on perfect clauses - material at the edge of the domain (i.e. *v*P-internal subjects (13a)) or higher (i.e. TP adjuncts (13b)) may evacuate the structure, but nonedge material is trapped inside the phase (i.e. arguments and low adjuncts (13c-f)). That is, since perfect *v*Ps will not allow successive cyclic movement, Ā-extraction of nonedge *v*P-internal material will be too long.[9]

Our novel observation here is that apparent violations of the extraction restriction in Nupe perfect clauses are subject to salvation by deletion. As shown in the following examples, the otherwise illicit movements are possible if covered up by ellipsis:

(18) *Ké Musa á *t* pa o?
what Musa PRF pound.PST FOC
Intended: 'What has Musa pounded?' (repeated from (13c))

(19) A: Musa á ejan ndoci pa.
Musa PRF thing certain pound.PST
'Musa has pounded something.'

B: Ké ~~Musa á *t* pa~~ o?

what Musa PRF pound.PST FOC

'What ~~has Musa pounded~~?' (compare with (18))

(20) *Zě Musa á *t* yà èwò o?

who Musa PRF give.PST garment FOC

Intended: 'Who has Musa given the garment to?' (repeated from (13d))

(21) A: Musa á eza ndoci yà èwò.

Musa PRF person certain give.PST garment

'Musa has given the garment to someone.'

B: Zě ~~Musa á *t* yà èwò~~ o?

who Musa PRF give.PST garment FOC

'Who ~~has Musa given the garment to~~?' (compare with (20))

(22) *Bà-bo Musa á le *t* o?

where-LOC Musa PRF sleep.PST FOC

Intended: 'Where has Musa slept?' (repeated from (13e))

(23) A: Musa á le ebà ndoci o.

Musa PRF sleep.PST place certain LOC

'Musa has slept somewhere.'

B: Bà-bo ~~Musa á le *t*~~ o?

where-LOC Musa PRF sleep.PST FOC

'Where ~~has Musa slept~~?' (compare with (22))

We further notice that repair effects also obtain under contrastive stripping.

(24) A: Musa á nakàn pa.
Musa PRF meat pound.PST
'Musa has pounded the meat.'
B: Hahà! Eci ~~Musa á *t* pa~~ o.
No yam Musa PRF pound.PST FOC
'No! THE YAM ~~Musa has pounded~~.'

(25) A: Musa á le cigban o.
Musa PERF sleep.PST tree LOC
'Musa has slept in the tree.'
B: Hahà! Kata bo ~~Musa á le *t*~~ o.
No room LOC Musa PERF sleep.PST FOC
'No! THE ROOM ~~Musa has slept in~~.'

(26) A: Musa á Gana yà èwò.
Musa PRF Gana give.PST garment
'Musa has given the garment to Gana.'
B: Hahà! Etsu ~~Musa á *t* yà èwò~~ o.
No chief Musa PRF give.PST garment FOC
'No! THE CHIEF ~~Musa has given the garment to~~.'

We are now in a position to compare two approaches to phasal domains. In Chomsky 2000 and subsequent work, successive-cyclic movement is enforced by the Phase Impenetrability Condition, where H is a phase head.[10]

(27) *Phase Impenetrability Condition (PIC)* (Chomsky 2000:13)
The domain of H is not accessible to operations outside HP; only H and its edge are accessible to such operations.

If Nupe's perfect *v* cannot provide an escape hatch, the PIC correctly predicts the extraction restriction presented above, as argued by Kandybowicz. Notice, however, that the PIC is a derivational constraint. That is, the PIC is a constraint on narrow syntax and thus repair effects are predicted not to exist because the relevant illicit structure cannot be built in the narrow syntax to begin with. In order to accommodate the data above, further stipulations would have to be made. Locality constraints, for instance, could be seen as partly derivational and partly representational. Movement violating the PIC would indeed be possible, but it would yield a damaged representation. One possible way to implement this idea is to resort to *-features, in line with Chomsky 1972 (see also Lasnik 2001, Merchant 2008 and Bošković 2011). That is, derivations are allowed to violate the PIC, but some relevant portion of the structure is assigned a *-diacritic. Deletion, by removing the portion of the structure containing the *-feature, would thus be able to save the derivation. The use of diacritics of this type to keep track of the derivational history in representational terms has received different types of critiques which we will not review here, mainly tied to its stipulative character (see Lakoff 1970 and Kitahara 1999; see also section 3.2 for further discussion). The analysis we provide below does not exploit the *-feature.

To account for the repair effect in Nupe perfect clauses under sluicing, we adopt the Cyclic Linearization framework to phasal domains (Fox and Pesetsky 2005a,b; Ko 2005, 2007, 2014; Davis 2020, 2021, among others). Replacing the PIC with Cyclic Linearization will allow us to maintain Kandybowicz's main insight and straightforwardly capture the repair effect. The core idea is that ordering is established at each phasal domain and stored. Crucially, derivations are order preserving, meaning that linearization statements established in a given phase are passed on to the following cycles. Evidence for this comes from a variety of disparate phenomena and languages such as Holmberg's Generalization and quantifier movement in Scandinavian languages, restrictions on scrambling in Japanese and Korean, and intermediate stranding under successive cyclic movement, among others (see references given above).[11] Consider, for instance, the following derivation where movement is not successive-cyclic:[12]

(28) *Noncyclic movement*

a. $[_{\text{PhaseP}_1}\ \beta\ [_{\text{XP}}\ \alpha]] \rightsquigarrow \beta \prec \alpha$

b. $[_{\text{PhaseP}_2}\ \alpha \overleftarrow{\quad}\ \gamma\ \ [_{\text{PhaseP}_1}\ \beta\ [_{\text{XP}}\ t_\alpha]]] \rightsquigarrow \alpha \prec \gamma \prec \beta \prec \alpha$

Once PhaseP$_1$ is spelled-out, the ordering $[\beta \prec \alpha]$ is stored. The derivation proceeds and α moves across PhaseP$_1$. PhaseP$_2$ is then linearized as $[\alpha \prec \gamma \prec \beta]$. The resulting ordering $[\alpha \prec \gamma \prec \beta \prec \alpha]$, including ordering statements from both PhaseP$_1$ and PhaseP$_2$, has a conflict, as α is required to precede and to follow β. The situation is different if α moves successive cyclically.

(29) *Cyclic movement*

a. $[_{\text{PhaseP}_1}\ \alpha \overleftarrow{\quad}\ \beta\ [_{\text{XP}}\ t_\alpha]] \rightsquigarrow \alpha \prec \beta$

b. $[_{\text{PhaseP}_2}\ \alpha \overleftarrow{\quad}\ \gamma\ \ [_{\text{PhaseP}_1}\ t_\alpha\ \ \beta\ [_{\text{XP}}\ t_\alpha]]] \rightsquigarrow \alpha \prec \gamma \prec \beta$

At PhaseP$_1$, $[\alpha \prec \beta]$ is established. α then moves and Phase$_2$ is linearized as $[\alpha \prec \gamma \prec \beta]$. Since precedence is a transitive relation, $[\alpha \prec \gamma \prec \beta]$ implies $[\alpha \prec \beta]$. No conflict arises. If *v*Ps and CPs are phasal domains[13], *wh*-movement, for instance, is obliged to proceed cyclically to avoid conflicting linearization statements.

(30) I wonder $[_{\text{CP}}$ **which book** he $[_{v\text{P}}\ t$ thinks $[_{\text{CP}}\ t$ Mary $[_{v\text{P}}\ t$ read $t\ ]]]]$

Returning to Nupe, consider for instance, the example in (19), repeated below:

(19) A: Musa á ejan ndoci pa.
Musa PRF thing certain pound.PST
'Musa has pounded something.'

B: Ké ~~Musa á *t* pa~~ o?

what Musa PRF pound.PST FOC

'What ~~has Musa pounded~~?' (compare with (18))

Following Ko 2005, 2007, 2014, we assume that *v*P is a spell-out domain rather than VP. Once the *v*P is completed, the ordering [S$\prec$PRF$\prec$O$\prec$V] is established.

(31) [$_{vP}$ Musa á ké pa] $\rightsquigarrow$ Musa $\prec$ á $\prec$ ké $\prec$ pa

Musa PRF what pound.PST

If the object is to be extracted, it has to move to the edge of *v*P to avoid a linearization contradiction. Since perfect *v*s do not enter into an Agree relation (recall that direct objects in Kandybowicz's proposal are licensed in [Spec,Agr$_O$] and not by agreeing with *v*), *v*'s edge-feature will not be activated and movement of objects (and low adjuncts) has to be done in one fell-swoop to [Spec,FocP], creating contradictory linearization statements once the FocP is linearized. Specifically, the object will be required to follow and precede the subject and the perfect marker:

(32) [$_{FocP}$ ké [$_{FinP}$ [$_{TP}$ Musa [$_{vP}$ *t* á *t* pa]]] o] $\rightsquigarrow$ ké $\prec$ Musa $\prec$ á $\prec$ ké $\prec$ pa $\prec$o

what Musa PRF pound.PST FOC

If sluicing eliminates FinP, and, as a result, also the linearization statements involving elements inside it, namely *Musa*, *á* 'PRF', and *pa* 'pound.PST', the contradiction dissolves and the derivation converges.

(33) [$_{FocP}$ ké ~~[$_{FinP}$ [$_{TP}$ Musa [$_{vP}$ *t* á *t* pa]]]~~ o] $\rightsquigarrow$ ké $\prec$ ~~Musa $\prec$ á $\prec$ ké $\prec$ pa~~ $\prec$o

what Musa PRF pound.PST FOC

This rationale readily extends to the other examples of repair in (21), (23), (24), (25), and (26).

These considerations from sluicing, stripping and Cyclic Linearization suggest that the Nupe

perfect extraction restriction is not a derivational condition as originally analyzed by Kandybowicz, but rather reflects a syntax-phonology interaction centered instead around linearization. We now turn to alternative analyses for these repair effects and show that all of them are untenable.

3.2 Ruling Out Alternative Analyses

We now consider and reject alternative approaches to the salvation by deletion analysis just presented as a result of our revision of Kandybowicz's (2009) analysis of perfect islands, all of which would be consistent with the PIC.

The first alternative we consider is pseudosluicing. Pseudosluicing, conceived either as deletion of a nonisomorphic truncated cleft (e.g. *who ~~was it~~?*; see Erteschik-Shir 1973, Merchant 2001, Barros 2014, Barros, Elliott, and Thoms 2014 among others), or a combination of a null copula and a null subject forming a truncated cleft without deletion (e.g. *who* $\emptyset_{was}$ $\emptyset_{it}$*?*; see Merchant 1998, Fukaya 2007, Potsdam 2007, and Gribanova and Manetta 2016 for discussion), could, in principle, be taken as the source of all clausal omission examples with apparent repair we have just seen, instead of the otherwise potentially illicit sources. We start our assessment of this alternative with two observations. First, we note that we have not identified in the language a cleft structure that could serve as a source structure for this evasion strategy.[14] Second, against the second type of pseudosluicing, subject/topic drop and null expletives are unattested in Nupe, as are null copulae, and null subjects in the language only appear in imperatives (Kandybowicz 2008). Two other facts about Nupe clausal ellipsis suggest the unavailability of an evasion strategy of this type in sluicing contexts. First, truncated clefts typically require exhaustivity and thus are incompatible with *else*-modification on the *wh*-phrase (Merchant 2001, Barros, Elliott, and Thoms 2014; see also Mikkelsen 2007 on truncated clefts). This can be exemplified with (34) below. Though sluicing is possible, a truncated cleft does not make for a good continuation.

(34) Harry was there, but I don't know who else (*it was). (Merchant 2001:122)

The examples in (35) and (36), however, show that repair effects still arise in the context of *else*-

modification in Nupe. If pseudosluicing was the source of the repair effect under ellipsis in Nupe, and truncated clefts generally require exhaustivity, constructions like (35B) and (36B) below would be wrongly predicted to be ungrammatical.[15]

(35) A: Musa á eci pa.
Musa PRF yam pound.PST
'Musa has pounded the yam.'
B: Ké ~~Musa á *t* pa~~ be o?
what Musa PRF pound.PST else FOC
'What else ~~has Musa pounded~~?'
#'What else ~~was it~~?'

(36) A: Musa á le kata o.
Musa PRF sleep.PST room LOC
'Musa has slept in the room.'
B: Bà-bo ~~Musa á le *t*~~ be o?
where-LOC Musa PRF sleep.PST else FOC
'Where else ~~has Musa slept~~?'
#'Where else ~~was it~~?'

Second, the availability of pseudosluicing predicts that adpositions that would otherwise be obligatorily pied-piped with *wh-* phrases can be dropped in clausal ellipsis (see Rodrigues, Nevins, and Vicente 2009, Barros 2014, Vicente 2018, Gribanova and Manetta 2016, among others for discussion). This prediction does not obtain in Nupe, a pied-piping language (37). In 38B, the allomorph (*bo*) of the locative postposition *o* selected by the verb obligatorily accompanies the *wh*-element in the elliptical question, suggesting that a copular source is not available.[16]

(37) a. Bà-bo eci ta *t* o?
where-LOC yam be.on FOC
'Where is the yam on?'

b. *Bà eci ta *t* o o?
where yam be.on LOC FOC
Intended: 'Where is the yam on?'

(38) A: Eci ta ebà ndoci *(o).
yam be.on place certain LOC
'The yam is on something.'

B: Bà-*(bo) o?
where-LOC FOC
'Where ~~is the yam on~~?'

The second, third and fourth alternatives that we rule out are 'nondeletion', 'in-situ' and '*-marking' approaches. We consider these three together since they suffer from the same problem. By nondeletion approach we refer to a family of analyses of ellipsis that would allow the *wh*-phrase to be placed in the left periphery without being moved from inside the perfect *v*P in the context of ellipsis. The missing FinP would either receive interpretation, for instance, by LF-copying, reusing the antecedent's FinP, or by an anaphoric device that does not resort to unpronounced syntactic structure. By base-generating the *wh*-phrase in [Spec,FocP] in sluicing environments, the putative derivational problem that would otherwise be created by the PIC can be evaded. This line has been pursued in several places in quite different ways (see Lobeck 1995, Chung, Ladusaw, and McCloskey 1995, Ginzburg and Sag 2000, Culicover and Jackendoff 2005, Jacobson 2016, among others, for different implementations). A possible representation of one of our examples would be as follows, where e_{FinP} is a lexical empty category.

(39) A: Musa á ejan ndoci pa.
Musa PRF thing certain pound.PST
'Musa has pounded something.'
B: Ké e_{FinP} o?
what FOC
'What?'

By in-situ approach, sometimes called 'nonconstituent deletion', we refer to analyses where remnants of clausal deletion do not evacuate the constituent that is apparently targeted for deletion (see Morgan 1973, Hankamer 1979, Kimura 2010, Abe 2015, Ott and Struckmeier 2016, and Stigliano 2020, among others). The idea here would be to evade the PIC by saying that the *wh*-element does not actually move in the examples we are discussing:[17]

(40) A: Musa á ejan ndoci pa.
Musa PRF thing certain pound.PST
'Musa has pounded something.'
B: ~~Musa á~~ ke ~~pa~~ o?
Musa PRF what pound.PST FOC
'~~Musa pounded~~ what?'

By '*-marking' approach, already alluded to in section 3.1, we refer to analyses where illicit movement results in the assignment of a *-feature to some sub-portion of the structure, which, if not deleted, precludes convergence at PF (see Chomsky 1972, Lasnik 2001, Merchant 2008, Bošković 2011, among others for different implementations). Ellipsis would thus have the surgical effect of removing damaged chunks, salvaging the final representation (the exact placement of the *-feature is orthogonal to our point).

(41) A: Musa á ejan ndoci pa.
Musa PRF thing certain pound.PST
'Musa has pounded something.'
B: Ké ~~Musa [$_{vP}$* á *t* pa]~~ o?
what Musa PRF pound.PST FOC
'What ~~has Musa pounded~~?'

Against nondeletion, in-situ, and *-marking approaches, we observe that Nupe sluicing is island-sensitive when it comes to adjunct and complex-NP islands, which implies that there is structure in the ellipsis site and that movement is implicated in Nupe clausal ellipsis. The following examples show lack of repair effects under sluicing for adjunct islands in three contexts, namely, regular sluicing (43B), sluicing with *else*-modification (44B) and contrastive stripping (45B):

(42) *Ké [$_{Adjunct}$ Gana gá pa *t*], Musa gà zè ewùn o?
what Gana COND pound.PST Musa FUT turn anger FOC
Intended: 'What is the thing *x* such that, if Gana pounded *x*, then Musa will be angry?'

(43) A: [$_{Adjunct}$ Gana gá pa ejan ndoci], Musa gà zè ewùn.
Gana COND pound.PST thing certain Musa FUT turn anger
'If Gana pounded a certain thing, Musa will be angry.'
B: *Ké ~~[$_{Adjunct}$ Gana gá pa *t*], Musa gà zè ewùn~~ o?
what Gana COND pound.PST Musa FUT turn anger FOC
Intended: 'What ~~is the thing *x* such that, if Gana pounded *x*, then Musa will be angry~~?'

(44) A: [$_{\text{Adjunct}}$ Gana gá pa eci], Musa gà zè ewùn.
Gana COND pound.PST yam Musa FUT turn anger
'If Gana pounded the yam, Musa will be angry.'

B: *Ké ~~[$_{\text{Adjunct}}$ Gana gá pa *t*], Musa gà zè ewùn~~ be o?
what Gana COND pound.PST Musa FUT turn anger else FOC
Intended: 'What else ~~is the *x* such that, if Gana pounded *x*, then Musa will be angry~~?'

(45) A: [$_{\text{Adjunct}}$ Gana gá pa eci], Musa gà zè ewùn.
Gana COND pound.PST yam Musa FUT turn anger
'If Gana pounded the yam, Musa will be angry.'

B: *Hahà! Eyì ~~[$_{\text{Adjunct}}$ Gana gá pa *t*], Musa gà zè ewùn~~ o.
no corn Gana COND pound.PST Musa FUT turn anger FOC
Intended: 'No! CORN ~~is the *x* such that, if Gana pounded *x*, then Musa will be angry~~.'

The following examples show lack of repair effects with complex-NP islands in the same contexts:

(46) *Zě Musa wo [$_{\text{Complex-NP}}$ ené na *t* ká na] o?
who Musa listen.PST song REL write.PST REL FOC
Intended: 'Who is the *x* such that Musa listened to a song that *x* wrote?'

(47) A: Musa wo [$_{\text{Complex-NP}}$ ení na egi Nigeria ndoci ká na].
Musa listen.PST song REL child Nigeria certain write.PST REL
'Musa listened to a song that a certain Nigerian wrote.'

B: *Zě ~~Musa wo [$_{\text{Complex-NP}}$ ení na *t* ká na]~~ o?
who Musa listen.PST song REL write.PST REL FOC
Intended: 'Who ~~is the *x* such that Musa listened to a song that *x* wrote~~?'

(48) A: Musa wo [Complex-NP ení na Gana ká na].
Musa listen.PST song REL Gana write.PST REL
'Musa listened to a song that Gana wrote.'

B: *Zě ~~Musa wo [Complex-NP ení na *t* ká na]~~ be o?
who Musa listen.PST song REL write.PST REL else FOC
Intended: 'Who else ~~is the *x* such that Musa listened to a song that *x* wrote~~?'

(49) A: Musa wo [Complex-NP ení na Gana ká na].
Musa listen.PST song REL Gana write.PST REL
'Musa listened to a song that Gana wrote.'

B: *Hahà! Nànă ~~Musa wo [Complex-NP ení na *t* ká na]~~ o?
no Nana Musa listen.PST song REL write.PST REL FOC
'No! NANA ~~is the *x* such that Musa listened to a song that *x* wrote.~~'

The sensitivity to adjunct and complex-NP islands suggests that sluicing and stripping constructions involve unpronounced structure in the ellipsis site, arguing against the nondeletion approach, and that they indeed result from a move-and-delete derivation, arguing against the in-situ approach. *-marking, on the other hand, would predict unrestricted repair effects with island violations. This, however, is inconsistent with the fact that while perfect islands are repaired under ellipsis, adjunct and complex-NP islands are not. Furthermore, the lack of repair effects with adjunct and complex-NP islands strengthens the claim made before that an evasion strategy based on the use of a cleft source in the ellipsis site is not available in the language. If any type of hidden cleft was the source of the repair effects we have found with perfect islands, we would expect this effect to generalize to adjunct and complex-NP islands, contrary to fact.[18]

The last alternative we consider is hidden resumption. If resumption can independently remedy perfect island violations in non elliptical environments, we might be able to blame the repair effects we see in our examples not on ellipsis, but instead on resumption. This type of approach has been proposed by Sauerland 1997, Wang 2006, Boeckx 2008, and Barros, Elliott, and Thoms

2014 to account for apparent repair effects under ellipsis in other domains. This would give the following representations:

(50) A: Musa á ejan ndoci pa.
Musa PRF thing certain pound.PST
'Musa has pounded something.'
B: Ké ~~Musa á **u:** pa~~ o?
what Musa PRF 3SG pound.PST FOC
'What ~~has Musa pounded~~?'

The following examples show that resumption cannot repair perfect island violations in the language, and therefore this is not a tenable alternative:

(51) *Ké Musa á **u:** pa o?
what Musa PRF 3SG pound.PST FOC
Intended: 'What has Musa pounded?' (compare with example B in (19))

(52) *Zě Musa á **u:** yà èwò o?
who Musa PRF 3SG give.PST garment FOC
Intended: 'Who has Musa given the garment to?' (compare with example B in (21))

(53) *Bà-bo Musa á le **u:** o?
where-LOC Musa PRF sleep.PST 3SG FOC
Intended: 'Where has Musa slept?' (compare with example B in (23))

The refutation of alternative analyses to the repair effects we have documented here suggests that our Cyclic Linearization-based revision of Kandybowicz's (2009) analysis is on the right track.

4 COMP-trace Effects

In this section we show that COMP-trace effects in Nupe can be repaired by ellipsis. We start by introducing Kandybowicz's 2009 prosodic analysis of the effect. We then show that the effect is voided under ellipsis, confirming his PF approach to the phenomenon.

4.1 Analysis and Repair

Consider the following baseline data exemplifying Nupe's COMP-trace effect:

(54) a. Ké Gana gàn [gànán Musa du *t*] o?
what Gana say.PST COMP Musa cook.PST FOC
'What did Gana say that Musa cooked?'

b. *Zě Gana gàn [gànán *t* du nakàn] o?
who Gana say.PST COMP cook.PST meat FOC
Intended: 'Who did Gana say (*that) cooked the meat?'

Like in the English translations, subject long-distance extraction across an overt complementizer leads to unnaceptability (54b), while long-distance extraction of the object across an overt complementizer does not (54a) (see Perlmutter 1971, Pesetsky 1982, Engdahl 1985, Kenstowicz 1989, among many others for reports of COMP-trace effects in different languages and different takes on the matter).

Kandybowicz (2009) notes that there are several strategies to circumvent this effect in the language, including insertion of TP-adjoined adverbials (55a), resumption in the subject position (55b) and pronunciation of tense markers (55c):[19]

(55) a. Zě Gana gàn [gànán **pányí lě** *t* du nakàn] o?
who Gana say.PST COMP long ago formerly cook.PST meat FOC
'Who did Gana say that long ago cooked the meat?'

b. Zě Gana gàn [gànán **u:** du nakàn] o?
who Gana say.PST COMP 3SG cook.PST meat FOC
'Who did Gana say cooked the meat?'

c. Zě Gana gàn [gànán *t* {*∅ **/è** **/à** } du nakàn] o?
who Gana say.PST COMP PST PRS FUT cook meat FOC
'Who did Gana say is cooking/will cook the meat?'

What all these repair strategies have in common is that they prevent the TP edge, including its head, from being phonetically null as in (54b).[20]

Kandybowicz (2009) argues that complementizers like *gànàn*, when introducing complement clauses, delimit the right boundary of a Phonological Phrase. This receives support, for example, from phrase-internal regressive assimilation in subject clauses (56), which does not obtain across the C-TP boundary in object TPs (57).

(56) a. *Phrase-internal regressive assimilation:*
/gànán + u:/ → [g**ùnún** u:]

b. G**ùnún** **u:** si doko mafi Musa.
COMP 3SG buy.PST horse please.PST Musa
'That s/he bought a horse pleased Musa.'

(57) [$_{PhonP}$ Etsu Musa gàn {gànán /*g**ùnún**} [$_{PhonP}$ **u:** nì enyà o].
chief Musa say.PST COMP 3SG beat.PST drum FOC
'Musa said that THE CHIEF beat a drum.'

If the TP introduced by *gànán* in complement clauses, for instance, is obligatorily parsed as a Phonological Phrase in Nupe, the problem with examples like (54b) reduces to An's (2007) Intonational Phrase Edge Generalization (IPEG), according to which the edge of an obligatorily parsed prosodic phrase cannot be phonetically empty (An 2007:61).

Although not stated in his 2009 article, Kandybowicz's PF approach to the COMP-trace effect in Nupe predicts that the effect should be voided under ellipsis, as ellipsis would bleed the IPEG violation. This prediction is borne out (59B).[21]

(58) *Ndă kíci Musa gàn gànán *t* si kèké o?
man which Musa say.PST COMP buy.PST bike FOC
Intended: 'Which man did Musa say bought the bike?'

(59) A: Musa gán gànán ndă ndoci si kèké.
Musa say.PST COMP man certain buy.PST bike
'Musa said that a certain man bought the bike.'
B: Ndă kíci ~~Musa gàn gànán *t* si kàké~~ o?
man which Musa say.PST COMP buy.PST bike FOC
'Which man ~~did Musa say bought the bike~~?' (compare with (58))

We now consider and reject alternative analyses to the repair effect just described.

4.2 Ruling Out Alternative Analyses

We have already shown that clausal ellipsis in Nupe has a move-and-delete derivation, as strong island connectivity obtains in clausal ellipsis with adjunct and complex-NP islands.

Therefore, we discard nondeletion, nonconstituent deletion, and *-marking analyses such as the following:

(60) A: Musa gàn gànán ndă ndoci si kɛ̀́.
Musa say.PST COMP man certain buy.PST bike
'Musa said that a certain man bought the bike.'

B: Ndă kíci e_{FinP} o?
man which FOC
'Which man?'

(61) A: Musa gàn gànán ndă ndoci si kèké.
Musa say.PST COMP man certain buy.PST bike
'Musa said that a certain man bought the bike.'
B: ~~Musa gàn gànán~~ ndă kíci ~~si kèké~~ o?
Musa say.PST COMP man which buy.PST bike FOC
'Which man ~~did Musa say bought the bike~~?'

(62) A: Musa gàn gànán ndă ndoci si kèké.
Musa say.PST COMP man certain buy.PST bike
'Musa said that a certain man bought the bike.'
B: Ndă kíci ~~Musa gàn gànán~~ *t* ~~si kèké~~ o?
man which Musa say.PST COMP buy.PST bike FOC
'Which man ~~did Musa say bought the bike~~?'

The connectivity effects with strong islands also imply that Nupe sluicing does not allow for a cleft evasion strategy. Furthermore, repair effects are also found with *else*-modification, which is typically incompatible with pseudosluicing.

(63) *Ké Musa gàn gànán *t* sun Gana dàn be o?
what Musa say.PST COMP fear.V.PST Gana fear.N else FOC
Intended: 'What else did Musa say frightened Gana?'

(64) A: Musa gàn gànán làbárì sun Gana dàn.
Musa say.PST COMP news fear.V.PST Gana fear.N
'Musa said that the news frightened Gana.'
B: Ké ~~Musa gàn gànán *t* sun Gana dàn~~ be o?
what Musa say.PST COMP fear.V.PST Gana fear.N else FOC
'What else ~~did Musa say frightened Gana~~?'
#'What else ~~was it~~? (compare with (63))

The final possibility to consider is hidden resumption. Since we have already shown that resumption is a possible repair strategy for Nupe's COMP-trace effect in nonelliptical environments (54B), hidden resumption might seem to be a good candidate alternative analysis (65B).

(65) A: Musa gàn gànán ndă ndoci si kàké.
Musa say.PST COMP man certain buy.PST bike
'Musa said that a certain man bought the bike.'
B: Ndă kíci ~~Musa gàn gànán **u:** si kèké~~ o?
man which Musa say.PST COMP 3SG buy.PST bike FOC
'Which man ~~did Musa say bought the bike~~?'

In order to reject such a possibility, we consider the interaction between perfect islands and COMP-trace effects. We have already shown that ellipsis can repair perfect island violations ((18-26)), and that extraction out of perfect *v*Ps is incompatible with resumption ((51-53)). Consider first the following example:

(66) *Zĕ Musa [$_{vP}$ á gàn [$_{CP}$ gànán *t* nya enyà]] o?
who Musa PRF say.PST COMP dance.V.PST dance.N FOC
Intended: 'Who is the *x* such that Musa has said that *x* danced?'

The example in (66) above has two problems, namely, it instantiates a COMP-trace violation in the embedded clause and a perfect island violation in the matrix clause. Consider now the following example:

(67) *Zě Musa [$_{vP}$ á gàn [$_{CP}$ gànán **u:** nya enyà]] o?
who Musa PRF say.PST COMP 3SG dance.V.PST dance.N FOC
Intended: 'Who is the *x* such that Musa has said that *x* danced?'

In (67), resumption repairs the COMP-trace violation, but, as expected, we still get a perfect island effect. Recall that resumption is incompatible with extraction out of perfect *v*Ps, but ellipsis is not. In other words, resumption cannot fix a perfect island violation. Only ellipsis can. The crucial testing example now is given below, where both the COMP-trace effect and the perfect island violation are mitigated under ellipsis.

(68) A: Musa á gàn gànán egi ndoci nya enyꜜ
Musa PRF say.PST COMP child certain dance.V.PST dance.N
'Musa has said that a certain child danced.'
B: Zě ~~Musa [$_{vP}$ á gàn [$_{CP}$ gànán *t* nya enyà]]~~ o?
who Musa PRF say.PST COMP dance.V.PST dance.N FOC
'Who ~~is the *x* such that Musa has said that *x* danced~~?'

Sluicing is available despite the fact that the alternative derivation with resumption in the embedded clause in (67) is ungrammatical. Since the perfect island violation is repaired in this example, we must conclude that ellipsis salvaged both the perfect island violation and the COMP-trace effect in the embedded clause.

5 Conclusion

By examining Nupe sluicing, we have made three observations and examined their theoretical consequences. We now summarize our findings and consider broader issues and future research.

We observed that Nupe sluicing counter-exemplifies Merchant's (2001) Sluicing-COMP Generalization. The cross-linguistic variation regarding the Sluicing-COMP Generalization can be accounted for by assuming Rizzi's (1997) split CP hypothesis and an analysis in which sluicing is FinP-ellipsis (Baltin 2010) rather than TP-ellipsis, as often assumed. We observed that this proposal predicts that along with Gungbe, discussed in Baltin 2010, and Nupe, other languages that exploit focus markers for *wh*-movement will consistently violate the Sluicing-COMP Generalization. We provided several examples of languages where this prediction could be tested.

We then observed that the extraction asymmetry in Nupe perfect clauses is neutralized under sluicing, which suggests that we are not dealing with a derivational limitation (contra Kandybowicz 2009), but instead with a PF constraint that can be voided under ellipsis. Following Kandybowicz 2009, we assumed that edge-features in Nupe perfect *v*Ps are not activated, and proposed an analysis in terms of Cyclic Linearization, where Ā-extraction of *v*P-internal material in perfect clauses unavoidably leads to a linearization conflict when ellipsis is not applied. The literature on salvation and nonsalvation by deletion has mainly focused on textbook locality constraints (e.g. Ross's Islands, COMP-trace effects in English, Superiority, Subjacency, ECP, Head Movement Constraint violations; see Ross 1969, Perlmutter 1971, Chung, Ladusaw, and McCloskey 1995, Merchant 2001, Lasnik 2001, Bošković 2011, Merchant 2008, Barros, Elliott, and Thoms 2014, Abels 2018 and Mendes 2020a, among others, for relevant discussion and different stands on the availability of salvation by deletion).[22] Here, we extended the logic of salvation by deletion to a new territory where it can provide a solid testing ground for the PF nature of apparent constraints on movement. This strategy might also prove useful in investigating other locality domains less well understood, such as restrictions on sub-extraction in Basque (Uriagereka 1988) and extraction asymmetries arising from syntactic ergativity in languages like Q'anjob'al, Tz'utujil, Mam, and Chuj, among others (Coon, Mateo Pedro, and Preminger 2014, Polinsky 2016, and references

therein).

Finally, we showed that ellipsis repairs COMP-trace effects in Nupe. We noted that this finding is predicted by Kandybowicz's (2009) analysis of Nupe's COMP-trace effect, according to which the effect is the result of a phonological pressure to fill TP's edge with a specifier, an adjunct, or an overt T head, implemented in terms of An's 2007 Intonational Phrase Edge Generalization (IPEG). To our knowledge, this is the first time COMP-trace effects have been tested under ellipsis in a language other than English, even though a) the English facts have been known since Perlmutter 1971 (see also Merchant 2001) and b) COMP-trace effects have been documented in several languages such as French (Perlmutter 1971), Russian (Pesetsky 1982), Danish (Engdahl 1985) and Levantine Arabic (Kenstowicz 1989), among others. Testing whether COMP-trace effects arise under ellipsis in a larger sample of languages while paying attention to their idiosyncrasies will be important to better understand this phenomenon.

The repair phenomena documented here also have broader consequences. There has been a lively debate on whether the phenomenon of salvation by deletion is real or not (see references in the previous paragraph and in section 2; Abels 2018 provides a useful literature review). Here we presented two case-studies which, we argued, instantiate genuine cases of repair. We supplemented both with analyses where independently motivated PF devices (IPEG and Cyclic Linearization) were employed and no specific repair machinery was stipulated. Our findings point to a fundamental distinction between the forces behind successive cyclic movement and strong islands, despite old and new attempts of unification (e.g. Chomsky 1986, Müller 2011, among others).

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Notes

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The Nupe data presented in this article comes exclusively from fieldwork and represents the dialect of Nupe spoken in the town of Lafiagi. Abbreviations used in the glosses of example sentences are as follows: COMP-complementizer; COND-conditional marker; FOC-focus; FUT-future; LOC-locative marker; N-nominal; PRF-perfect; PRS-present; PST-past; REL-relativizer/relative clause particle; SG-singular; V-verbal. The orthographic representation of Nupe employed in this article conforms to the modern spelling system. High tone is marked with an acute accent over the vowel and low tone is marked with a grave accent. Mid tones are unmarked. Nasalized vowels are represented by the sequence V + n (e.g. <an> is the notation for the nasalized vowel [ã]). Labiovelar phonemes are also transcribed as sequences of graphemes (e.g. <gb>). Vowel length is indicated by means of a colon following the vowel and contour tones are transcribed as sequences of level tones (e.g. a rising tone on the vowel [a] is transcribed <ǎ>)

[1]The sentence-final status of Nupe's focus particle *o* is confirmed by the following examples, where the focus particle can only be placed at the very end of the sentence, in a position distant from the traces of the *wh*- elements:

(i) a. Zě á eci pa o?
who PRF yam pound.PST FOC
'Who has pounded the yam?'

b. Zě Gana gàn gànán *t* à du nakàn o?
who Gana say.PST COMP FUT cook meat FOC
'Who did Gana say will cook the meat?'

[2]Other potential counter-examples to the Sluicing-COMP Generalization are found in Japanese and

Hungarian, already discussed by Merchant (2001), and Slovenian (Marušič, Mišmaš, Plesničar, and Šuligoj 2018).

[3]It is also possible that head movement inside the ellipsis site is bled by ellipsis. See Landau 2020 for discussion of relevant data. We also refer the reader to Landau 2020 and Lasnik 1999 for different takes on the English data, both of which do not generalize to languages like Brazilian Portuguese.

[4]We remain agnostic about the exact landing site of fronted *wh*-phrases in Brazilian Portuguese and English.

[5]*Be* 'else' also appears at the right edge of the clause when associated with *wh*- subjects, in which case it appears far away from any position related to its *wh*- associate:

(i) Zě á eci pa be o?
who PRF yam pound.PST else FOC
'Who else has pounded the yam?'

No other position is available for *be* 'else' in examples like this. Crucially, *be* may not immediately follow the wh- subject (ii), arguing against analyses that treat [*wh- be*] as an underlying constituent and derive the position of *be* in sentences like (10) from stranding.

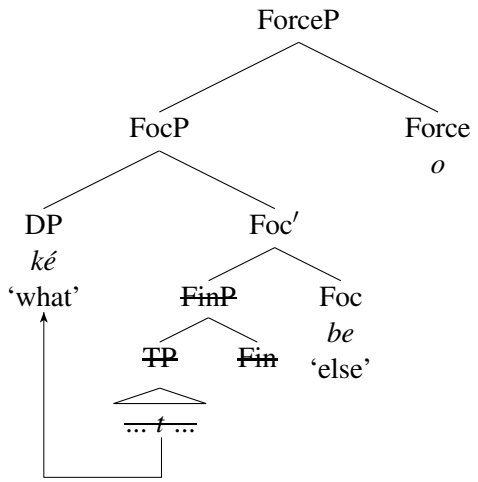
(ii) *Zě be á eci pa o?
who else PRF yam pound.PST FOC
Intended: 'Who else has pounded the yam?'

[6]We draw attention to the fact that the presence of the focus marker used in regular *wh*-questions does not conflict with *be* 'else' (10)-(11), implying that an exhaustive interpretation potentially triggered by the focus marker itself can be canceled. Similar facts have been reported for Yoruba (Jones 2006). Since the semantics of Nupe's focus marker is not the focus of the present paper, we leave further probing of the implications of this finding for future research.

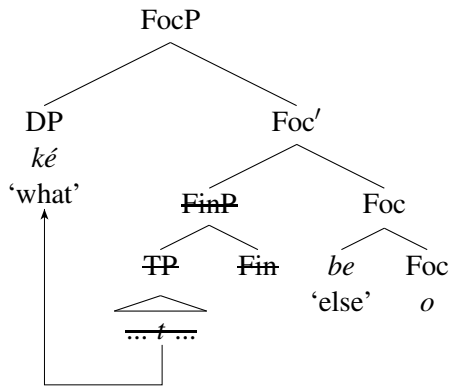
There are also other possibilities for the positioning of *be* 'else' in the left periphery. Namely, *o*,

which we have identified as a focus particle, could actually be an instance of Force, in which case *be* 'else' could be placed in Foc (i), or Foc could host both *be* and *o* (ii):

(i)



(ii)



Since nothing we will argue in the remainder of this article hinges on this choice, we adopt the structural analysis presented in (12) for concreteness.

[7]The same restriction holds for relativization and non-*wh* focus movement. See Kandybowicz 2009 for a more complete data set with different types of Ā-extraction. Kandybowicz also shows that extraction out of unnacusative *v*Ps is unrestricted in the perfect.

[8]See Kandybowicz and Baker 2003 for further discussion about the positioning of *á* in the *v*P head position and Nupe's verb phrase structure more generally.

[9]Kandybowicz points out several consequences of this system, one of which is that it prevents gratuitous noninterrogative/nonfocal movement to the C domain:

(i) a. *Smith thought *Barriers* that Chomsky wrote *t*.

b. *Smith knows *will* Chomsky *t* write a book on phases.

[10]Chomsky 2001:14, presents a slightly weaker formulation of the PIC. Both formulations will give the same result for this discussion.

[11]Fox and Pesetsky 2005a also hinted that the Cyclic Linearization framework could provide an insightful handle on the phenomenon of salvation by deletion (see Lasnik 2009 and Lasnik 2014 for dis-

cussion, and Takahashi 2004, p.583, for an analytical suggestion along these lines in the domain of pseudogapping).

[12]See Fox and Pesetsky 2005a for formal definitions.

[13]Notice that we are assuming that the whole *v*P is linearized and not only the complement of *v* (i.e. VP). Successive cyclic movement thus proceeds through the *v*P edge as traditionally assumed under the PIC. This assumption will be crucial for our analysis. See Fox and Pesetsky 2005a,b and Ko 2005, 2007, 2014 for further discussion on the size of the spell-out domain and empirical arguments for taking *v*P as the linearization domain.

[14]Languages that have been claimed to lack cleft structures include Hungarian and Romanian, which, like Nupe, form *wh*-questions through focus movement (Dobrovie-Sorin 1993, Grosu 1994, Merchant 2001, Bošković 2002, Craenenbroeck and Lipták 2013, and references therein). Future work will confirm whether Nupe truly lacks cleft structures that could in principle be used in the ellipsis site.

[15]As observed by a reviewer, focus movement does not always require exhaustivity (É. Kiss 1998). Nonetheless, we do not know of any language where truncated clefts do not require exhaustivity in the testing environments that we are using. We take our findings on this as suggestive that pseudosluicing does not underlie the amelioration effects that we observe in Nupe ((35) and (36)). Later in this section, we provide a different argument based on pied-piping (Gribanova and Manetta 2016), and a more general, albeit indirect, argument against the availability of cleft evasion centered on the impossibility of repairing strong island violations under ellipsis.

[16]Similar effects arise, for instance, in German, Greek and Hindi-Urdu (Merchant 2001:chapter 3, Gribanova and Manetta 2016, among others).

[17]Notice that Nupe is a *wh*-movement language (Kandybowicz 2020). Several technical solutions have been proposed in the literature to maintain an *in situ* approach to sluicing even in languages with obligatory *wh*-movement. For instance, Kimura 2010 adopts the view that movement is decomposed into Move-F, enforced by feature checking, and generalized pied-piping, enforced by the necessity of reuniting the moved feature with the now defective phrase from which the feature was taken (Chomsky 1995:chapter 4, Agbayani and Ochi 2006). In Kimura's analysis, nonconstituent deletion removes

the intervening material between the moved feature and the phrase from which it was taken, thus removing the need for pied-piping. Another intriguing possibility, suggested by an anonymous reviewer, would be to interpret obligatory *wh*-movement in terms of Richards' (2016) Contiguity theory, according to which obligatory *wh*-movement is a response to a PF-demand requiring *wh*-phrases and their scope marking complementizers to belong to the same prosodic phrase. nonconstituent deletion would remove the prosodic boundaries between the *in situ wh*-phrase and C, dispensing with the need for movement for contiguity compliance. For yet another take on this issue, see Abe 2015.

[18]We draw attention to the fact that the apparent lack of repair effects is not limited to cases where the clausal ellipsis's remnant contrasts with its correlate in the antecedent, which conflicts with some opposite claims made in the literature based on other languages (see Merchant 2008, Griffiths and Lipták 2014, Barros, Elliott, and Thoms 2014, for discussion and different stands on the nonmonolithic character of apparent repair effects with strong islands). We have found that repair effects under ellipsis in Nupe only seem possible with D-linked *wh*-phrases (ii), in which case resumption is able to mitigate the island effect in the absence of ellipsis (i):

(i) Egi Nigeria kíci Musa wo [$_{\text{Complex-NP}}$ ení na **u:** ká na] o?
child Nigeria which Musa listen.PST song REL 3SG write.PST REL FOC
'Which Nigerian is the *x* such that Musa listened to a song that *x* wrote?'

(ii) A: Musa wo [$_{\text{Complex-NP}}$ ení na egi Nigeria ndoci ká na].
Musa listen.PST song REL child Nigeria certain write.PST REL
'Musa listened to a song that a certain Nigerian wrote.'

B: Egi Nigeria kíci ~~Musa wo [$_{\text{Complex-NP}}$ ení na **u:** ká na]~~ o?
child Nigeria which Musa listen.PST song REL 3SG write.PST REL FOC
'Which Nigerian ~~is the *x* such that Musa listened to a song that *x* wrote~~?'

We refer the reader to Lasnik 2001, Rottman and Yoshida 2013, Wood, Barros, and Sigurdson 2016, Yoshida, Potter, and Hunter 2018, Mendes 2020b, and references therein, for arguments for the exis-

tence of repair effects of adjunct and complex-NP island violations in some languages. We leave a fuller investigation of these matters, which constitutes an independent research project beyond the scope of this article, for future work. In any event, our findings suggest that the driving forces behind successive cyclic movement strong islands are fundamentally distinct and that more cross-linguistic investigation on the interaction between strong islands and ellipsis is needed.

[19]Parallels to the TP-adjunct effect in (55a) have also been discussed for English (Bresnan 1977:194, Culicover 1993, and Kandybowicz 2006).

(i) *Who do you think that for all intents and purposes __ wrote the book?*

As noted in several places in the literature, this effect casts doubt on ECP treatments of COMP-trace effects based on proper government (Chomsky 1981, Chomsky 1986, among others).

Two points regarding the fact that overt tense markers void Nupe's COMP-trace effect (55c) are also worth noting. First, Nupe's COMP-trace effect is inconsistent with an ECP treatment, making the point above in a different way. Second, Nupe's COMP-trace effect is inconsistent with a treatment in terms of Spec-to-Spec anti-locality (Douglas 2017, Erlewine 2020). In Douglas 2017 and Erlewine 2020, COMP-trace effects basically arise because movement from [Spec,TP] to [Spec,CP] in the embedded clause is too short (and long movement, skipping [Spec,CP], is too long). Applying this analysis to Nupe results in undergeneration of all cases where the presence of an overt tense marker, inserted below [Spec,TP], mitigates COMP-trace effects. While Erlewine (2020) discusses Nupe examples from Kandybowicz 2009, he ignores this fact. We thank an anonymous reviewer for drawing our attention to the anti-locality literature.

[20]Nupe verbs do not raise to T (Kandybowicz and Baker 2003). Therefore, T is phonetically empty in (54b).

[21]Perlmutter (1971:111–112), Chung, Ladusaw, and McCloskey (1995:274) and Merchant (2001:185) observe similar mitigation effects for COMP-trace phenomena in English:

(i) *Sally asked if somebody was going to fail Syntax One, but I can't remember who ~~Sally~~*

~~*asked if t was going to fail Syntax One*~~.

(Adapted from Chung, Ladusaw, and McCloskey 1995:274)

[22]Lasnik 2001, Bošković 2011, and Mendes and Nevins to appear also apply salvation by deletion diagnostics to new domains.