

# Sluicing inside relatives

## The case of Gungbe

Anikó Lipták and Enoch O. Aboh

Leiden University / University of Amsterdam

This paper contributes to current advances in the cross-linguistic variation of syntactic contexts that allow sluicing. We investigate a relatively rare sluicing strategy: TP-ellipsis inside relative clauses. We analyse this phenomenon in Gungbe based on Van Craenenbroeck and Lipták's (2006) implementation of the [E]-feature characteristic of sluicing.

**Keywords:** sluicing, ellipsis licensing, relative clauses, Gungbe, Hungarian

### 1. The syntactic licensing of sluicing

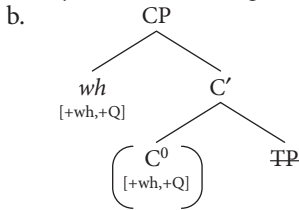
#### 1.1 Sluicing in English

Sluicing is an instance of clausal ellipsis that leaves a single *wh*-remnant behind (Ross 1969). Lobeck (1995: 54–62) and Merchant (2001: 54–61) report that sluicing is restricted to *wh*-questions in English, (1a). Accordingly, English excludes sluicing in relatives (1b):

- (1) a. Someone read that book, but I don't know who.  
b. \*Someone read that book, but I didn't know {the person who / whoever}.

Merchant (2001: 55–61) explains this restriction on sluicing as a property of the syntactic feature [E] on the interrogative C°-head whose complement is elided. Further studies on sluicing in English indicate that the feature [E] hosts all the syntactic, semantic, and phonological properties which distinguish elliptical constructions from non-elliptical ones.<sup>1</sup> [E] is endowed with strong and uninterpretable [uw<sup>h</sup>\*,uQ\*]-features (Chomsky 1995) as indicated in (2a). These features require overt checking of [E]'s feature on the C° head of constituent questions as suggested by the configuration in (2b).

- (2) a. syntax of [E] in English sluicing:  $E_{[uwh^*, uQ^']}$



The analysis in (2b) ensures that sluicing in English only targets the TP-complement of a null  $C^0$  found in constituent questions. This appears to be a general restriction in Germanic languages.

## 1.2 Sluicing with non-*wh*-fronting: Focus sluicing

While English sluicing is confined to constituent questions, there are cross-linguistic variations. Van Craenenbroeck and Lipták (2006), Grebenyova (2006), and Hoyt and Theodorescu (2012) show that sluicing can leave a focus remnant behind in languages where *wh*-phrases and focused phrases target the same position. In Hungarian, for instance, *wh*-phrases front to a focus position (Horváth 1986). Consequently, ellipsis targets the post-focal position as shown by example (3a), to be contrasted with the ungrammatical English example (3b):<sup>2</sup>

- (3) a. János meghívott egy lányt, de nem tudtam, hogy ANNÁT.  
 John invited a girl-A but not knew.1SG that Anna-A  
 'John invited a girl, but I don't know that it was Anna.'  
 b. \*John invited a girl, but I don't know ANN (i.e. I don't know it was Ann).

Similar facts are found in Gungbe, a Kwa language (Niger-Congo). Gungbe is a focus-fronting language in which *wh*-constituents and focus phrases target the same position left-adjacent to the focus marker *wè* which encodes the  $\text{Foc}^0$  head. This marker is obligatory in *wh*- and focus constructions (Aboh 2004). As expected, Gungbe allows for sluicing both with *wh*- and focus remnants. Ordinary, English-type sluicing with a *wh*-remnant is illustrated in (4a), and focus sluicing with a focus remnant is shown in (4b). Note that sluicing in Gungbe violates Merchant's (2001) sluicing-COMP generalization because the focus marker must be pronounced after the remnant (Aboh 2010a, Baltin 2010):<sup>3</sup>

- (4) a. Kòfí ná yíró mè dé b'ò ùn kànbí's d'j' ménù wè  
 Kòfí FUT call person IND but/and I ask that person.Q FOC  
 'Kofi will call someone and I wonder who.'

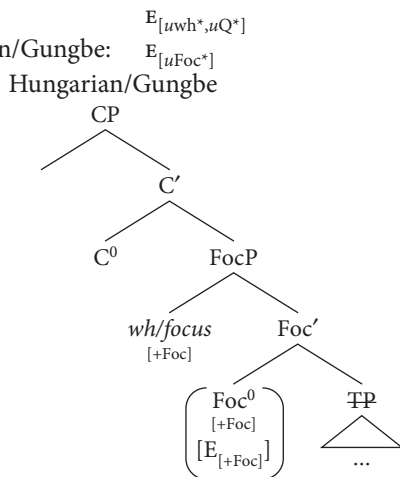
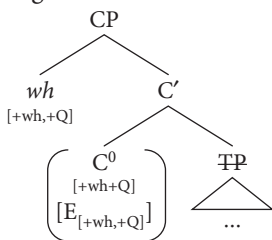
- b. Mè      dɛ́ wá, àmón má      nyón èn ní Kofi wè.  
 someone IND come but 1SG.NEG know it if Kofi FOC  
 'Someone came, but I don't know if (it was) Kofi.'

To account for the difference between English-type languages and Hungarian-type languages Van Craenenbroeck and Lipták (2006) propose that overtly fronting *wh*-constituents check  $[uwh^*, uQ^*]$  features on  $C^0$  in English and similar languages. In focus movement languages, however, *wh*-constituents front to check an uninterpretable focus feature on  $Foc^0$ , whose complement is elided in sluicing. Assuming Rizzi's (1997) layered COMP field, this would mean that English sluicing deletes the complement of the interrogative head whose specifier hosts *wh*-phrases, while Hungarian/Gungbe sluicing deletes the complement of  $Foc^0$ . To link this difference to the typological differences attested in sluicing, Van Craenenbroeck and Lipták (2006) further propose that the behavior of *wh*-elements in non-elliptical questions determines the syntactic properties of  $[E]$ , according to the *wh*/sluicing correlation in (5).

- (5) THE WH/SLUICING-CORRELATION (Van Craenenbroeck and Lipták 2006)  
 The syntactic features that the  $[E]$ -feature checks in a certain language are identical to the strong features a *wh*-phrase checks in a non-elliptical constituent question in that language

Under (5), the feature  $[E]$  responsible for sluicing differs among English and Hungarian/Gungbe. In English sluicing targets the TP complement of C, while in Hungarian/Gungbe sluicing targets the TP complement of  $Foc$ . This difference confines sluicing to the particular configurations illustrated in (6c).

- (6) a. the syntax of  $[E]$  in English:  
 b. the syntax of  $[E]$  in Hungarian/Gungbe:  
 c. English



### 1.3 Sluicing with relative pronoun remnants

The analysis in (6) accounts for the cross-linguistic variation between *wh*-movement languages (e.g. English) and focus-movement languages (e.g. Hungarian/Gungbe) in a principled manner. We now extend this analysis to new data sets indicating that, in some focus movement languages, sluicing is licensed in an even wider domain than hitherto thought.

In particular, both Hungarian and Gungbe exhibit a sluicing pattern that is unavailable in English and appears to be rare cross-linguistically: sluicing inside relative clauses (7–8).<sup>4</sup>

- (7) Ezért tartunk ott, ahol [TP<sup>-</sup>].  
 this.for be.PRES.3PL there REL.where  
 lit. ‘For this reason we are wherever we are.’
- (8) Kòfí ná yró’ mè dé àmón má nyón mè dẽ wè [TP<sup>-</sup>].  
 Kòfí FUT call person IND but 1SG.NEG know person REL FOC  
 lit. ‘Kofi will call someone, but I don’t know the person who.’

As the translations indicate, Hungarian relative sluicing (7) has a free choice reading, while the meaning of the Gungbe example in (8) reminds us of English-type sluicing, though the syntax of sluicing is different in these two languages as we suggested in the previous paragraphs. The major contribution of this article is to bring the Gungbe pattern of relative sluicing to light and show how they bear on the *wh*/focus-sluicing generalization in (5). As for the Hungarian example in (7), we refer the reader to Lipták (2013) for discussion.

## 2. Relative sluicing in Gungbe: The basic facts

### 2.1 Some illustrative examples

While ordinary English-type *wh*-sluicing in Gungbe is available after predicates like *kànbíʒ* ‘ask’ (4a), predicates like *nyón* ‘know’ exhibit a distinct pattern of sluicing. Here, the sluiced remnant does not correspond to a question phrase or a lexical focus expression. Rather, it contains an indefinite nominal followed by a relativizer, in turn followed by the obligatory focus marker. The bracketed sequences in the following examples illustrate this kind of sluicing:

- (9) a. Kòfí ná yró’ mè dé àmón má nyón [mè dẽ wè].  
 Kòfí FUT call person IND but 1SG.NEG know person REL FOC  
 Lit. ‘Kofi will call someone, but I don’t know the person who.’

- b. Kòfí ná xò nú dɛ̀ àmón má nyón [nú dɛ̀ wè].  
Kòfí FUT buy thing IND but 1SG.NEG know thing REL FOC  
Lit. ‘Kofi will buy something, but I don’t know the thing which.’
- c. Kòfí ná yì fí dɛ̀ àmón má nyón [fí dɛ̀ wè].  
Kòfí FUT go place IND but 1SG.NEG know place REL FOC  
Lit. ‘Kofi will go to some place, but I don’t know the place what.’
- d. Kòfí ná yró mē dɛ̀ àmón má nyón [dáwè dɛ̀ wè].  
Kòfí FUT call person IND but 1SG.NEG know man REL FOC  
Lit. ‘Kofi will call someone, but I don’t know the man which.’

The sluiced phrase can also correspond to a complex noun such as a possessive phrase:

- (10) Kòfí yró mè dɛ̀ àmón má nyón [mè dɛ̀ sín ví wè].  
Kòfí call person IND but 1SG.NEG know person REL POSS child FOC  
‘Kofi called someone but I don’t know whose child.’

A piece of evidence that (9) and (10) contain a reduced form of full clauses comes from the observation that sluicing is optional: The TP following the relativized nominal + the focus marker can also be pronounced, as is shown in (11), which corresponds to example (9a):

- (11) Kòfí ná yró mè dɛ̀ àmón má nyón mè dɛ̀ wè Kòfí ná yró.  
Kòfí FUT call person IND but 1SG.NEG know person REL FOC Kòfí FUT call  
‘Kofi will call someone, but I don’t know the person who Kofi will call.’

## 2.2 Selectional properties: DP complementation

The distribution of this kind of sluicing is tied to the selectional properties of the matrix predicate: Relative sluicing is only found with predicates that select DP complements, such as *nyón* ‘know’.<sup>5</sup> These predicates are different from predicates whose complement is a CP, such as *kànbíʒ* ‘ask’, *sè* ‘hear’, *lèn* ‘think’, and *mèn* ‘see’.

Evidence for such a difference in syntactic selection comes from various sources. Two of these, which we illustrate here, concern the category of the verbs’ complement and the realization of the embedded complementizer in clausal complements.

First, the two predicate types show differences in the category they are complemented by in embedding contexts: DP-selecting verbs require the 3sg pronoun *èn* to introduce the complement (12).

- (12) Ûn nyón \*(èn) dɛ̀ Kòfí wè wá.  
1SG know 3SG that Kòfí FOC come  
‘I knew it that Kofi came.’

CP-selecting predicates on the other hand are adjacent to the complementizer *dɔ́* ‘that’ and cannot combine with a pronominal (13a–b):

- (13) a. Ûn kànbíó (\*èn) dɔ́ ménù wè wá?  
 1SG ask 3SG that who FOC come  
 ‘I asked who came.’  
 b. Ûn sè/lèn/mòn (\*èn) dɔ́ Kòfí wè wá  
 1SG hear/think/see 3SG that Kòfí FOC come  
 ‘I heard/thought/saw (\*it) that Kofi came.’

From this we conclude that *nyón* can only combine with a DP complement, which in cases of clausal complementation embeds a relative clause: A DP containing a CP-clause (see Aboh 2002, 2005 for discussion). *Kànbíó*-type predicates on the other hand are complemented by a CP category without an outside DP layer.<sup>6</sup>

**Table 1.** Syntactic selection with the two types of predicates

predicate	syntactic category of complement
<i>nyón</i> ‘know’	[DP ...([ CP ...])]
<i>dɔ́</i> ‘say’, <i>kànbíó</i> ‘ask’	[CP ...]

Related to the latter difference, the two predicate classes also differ in whether they allow for complementizer deletion. Verbs that associate with a nominal category disallow the deletion of the complementizer:

- (14) Ûn nyón èn \*(dɔ́) Kòfí wá.  
 1SG know 3SG that Kofi come  
 ‘I knew (that) Kofi came.’

Verbs of saying on the other hand typically allow comp-deletion freely:

- (15) Ûn dɔ́ (dɔ́) Kòfí wá.  
 1SG say that Kofi come  
 ‘I said (that) kofi came.’

One possible way of accounting for these syntactic differences in comp-deletion is to trace them back to the selectional difference introduced above. We assume, together with Aboh (2010b) that comp-deletion is blocked by the intervening DP in (14) and similar examples but not in (15) (or (13b) where there is no DP layer between the selecting verb and the clausal complement.

### 2.3 Arguments for a DP-internal relative clause

If *nyón* ‘know’ can only combine with DP complements as argued for here, then sluicing in the examples in (9) and (10) must take place inside that DP. As for the

internal structure of this DP, the presence of the element *dě*, typical of Gungbe relative clauses (16), suggests that the bracketed DP sequences contain a relative clause of some sort.

- (16) *náwè \* (dě) wá xò mótò cè*  
 woman REL come buy car my  
 ‘the woman who came bought my car’

We will therefore refer to examples like (9) and (10) as ‘relative sluicing’ and analyze them along the lines of (17), involving TP deletion inside the relative clause stranding the relative pronoun — a configuration that is ungrammatical in English-type languages (1b).

- (17) *Kòfí ná yró mè dě ámón má nyón [DP mè dě wè [TP Kòfí ná yró]]*  
 Kòfí FUT call person IND but 1SG.NEG know person REL FOC

We are aware of one important structural difference between relative sluicing and ordinary relativization strategies in Gungbe: While the modified noun and the relative pronoun need not be adjacent in relative clauses, the relativized nominal and the relative morpheme *dě* appear to form a *single constituent* and thus nothing can intervene between the two. This is shown in examples (18a–c) where the ordinal *títán* (first) occurs either between the relative head *mè* and the relative clause (18a) or to the right of the relative clause (18b). If relative sluicing involved the same structure as ordinary relative clauses, one would expect the ordinal to have the same distribution there as well. Crucially, one would expect the ordinal to intervene between the relative head *mè* and the relativizer as in (18a). As the ungrammatical example (18c) shows, however, this is impossible:

- (18) a. [*mè títán [dě wá]*] *wè ná wà àzón ló*  
 person NUM REL come FOC FUT do job DET  
 ‘The first person to come will do the job’  
 b. [*mè [dě wá] títán*] *wè ná wà àzón ló*  
 person REL come NUM FOC FUT do job DET  
 ‘The first person to come will do the job’  
 c. \**Kòfí ná yró [mè títán [dě wá]] dòpkó*  
 Kòfí FUT call person first REL come one  
*ámón má nyón mè títán dě wè*  
 but 1SG.NEG know person first REL FOC  
 Lit. ‘Kofi will call the first person to come but I don’t know which first person that is’

This structural difference goes hand in hand with another difference between ordinary relatives and relative sluicing: While the focus marker *wè* cannot occur

immediately to the right of the relativizer in ordinary relatives, this is possible in relative sluicing.

- (19) a. mótò dĕ (\*wè) mí xò  
           car REL FOC 1PL buy  
           ‘the car that we bought’  
       b. Kòfí ná yró mè dĕ àmón má nyón mè dĕ \*(wè)  
           Kòfí FUT call person IND but 1SG.NEG know person REL FOC  
           Lit. ‘Kofi will call someone, but I don’t know the person who.’

We will return to these points in Section 3 and provide more arguments for the claim that *mè-dĕ* forms a single constituent in relative sluicing.

## 2.4 Ruling out a cleft analysis

Before concluding this section, we dedicate some space to ruling out a cleft underlier for the sluice. Clearly, a simple cleft with a structure like (20) cannot be what underlies relative sluicing.

- (20) Kofi will call someone, but I don’t know [<sub>CP</sub> who<sub>i</sub> [<sub>TP</sub> ~~that is t<sub>i</sub>~~]]

Several facts undermine (20). First, an underlier like (20) would require the presence of the 3sg pronoun *è(n)* to occur between the verb and the CP-complement (recall that *nyón* selects DP complements). Such a pronoun, however, is ungrammatical in relative sluicing:

- (21) Kòfí ná yró mè dĕ àmón má nyón (\*èn) mè dĕ wè.  
           Kòfí FUT call person IND but 1SG.NEG know 3SG person REL FOC  
           ‘Kòfí will call someone, but I don’t know who.’

Second, (20) would not predict the presence of the relativizer *dĕ*, in the sluiced clause. To account for the latter, the underlier should contain a relative clause as the pivot of the cleft, thus suggesting a structure like (22):

- (22) Kofi will call someone, but I don’t know ...  
       [<sub>DP</sub> [<sub>CP</sub> [<sub>DP<sub>relative</sub></sub> who<sub>i</sub> [<sub>TP1</sub> ~~Kofi will call t<sub>i</sub>~~]]], [<sub>TP2</sub> ~~that is t<sub>j</sub>~~]]]

The most problematic point with (22) is that it involves two instances of TP ellipsis, which in principle are independent of each other. The deletion of TP<sub>1</sub> inside the relative clause should therefore not affect TP<sub>2</sub> inside the cleft. If (22) were correct, we would expect ellipsis to target any of these TPs independently. Example (23) illustrates such a sentence. In this example, the relative clause (the alleged pivot of the cleft) is fully spelled out, followed by the focus marker that accompa-



nies sluiced remnants. The rest of the cleft is not spelled out, yet the construction is ungrammatical.

- (23) \*Kófí ná yró mè dĕ àmón má nyón  
 K FUT call person IND but 1SG.NEG know  
 [mè dĕ Kófí ná yró ] wè [—].  
 person REL Kofi FUT call FOC  
 ‘Kofi will call someone, but I don’t know the person who Kofi will call.’

This is unexpected under (22). We conclude that an analysis that assumes a simple or a complex cleft underlier is untenable. Instead, we propose that the elided constituent is a TP inside a DP relative clause that itself is a complement to the selecting verb. This is schematized again in (24).

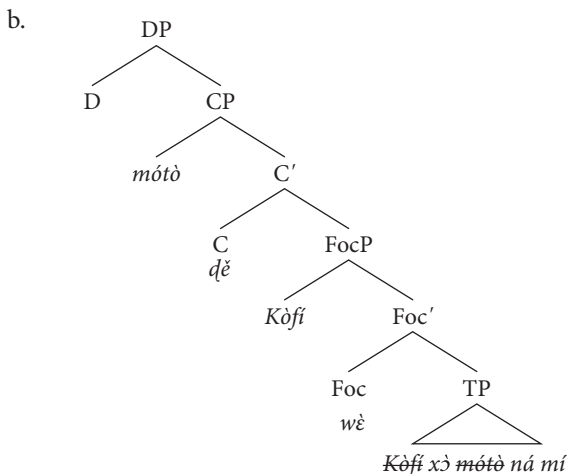
- (24) ... *nyón* [<sub>DP</sub> {thing/man/place} dĕ wè [—<sub>TP</sub>—]]  
 NP REL FOC

The next section discusses the internal structure of the sluiced relative and the syntactic licensing of TP-ellipsis.

### 3. The fine structure of relative sluicing

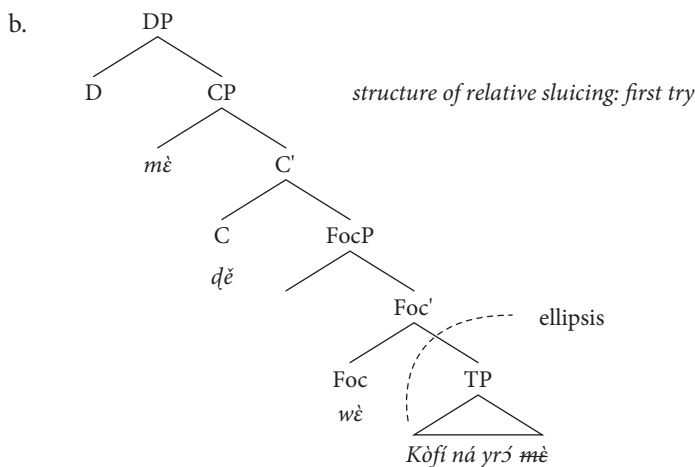
In order to understand the conditions on relative sluicing, we first discuss the structure of standard relativization in Gungbe. Our analysis of standard relatives builds on Aboh (2002, 2005): Relative clauses involve a DP embedding a CP, with the relativized noun in Sp,CP and the relative morpheme *dĕ* in *C*<sup>0</sup>. It is important to note that the focus marker *wè* is only attested inside relative clauses if the relative clause contains a focused phrase, promoted to Sp,FocP. This is the case in (25a), with the structure of the relative illustrated in (25b) (here we ignore subsequent generalized pied-piping of CP to spec,DP as argued in Aboh 2002, 2005):

- (25) a. Mótò [dĕ Kòfí wè xɔ ná mí].  
 car REL Kòfí FOC buy for us  
 ‘The car that Kofi bought for us.’



Extending the structure in (25b) to relative sluicing would lead us to propose the structure in (26b) for an example like (9a), repeated in (26a).

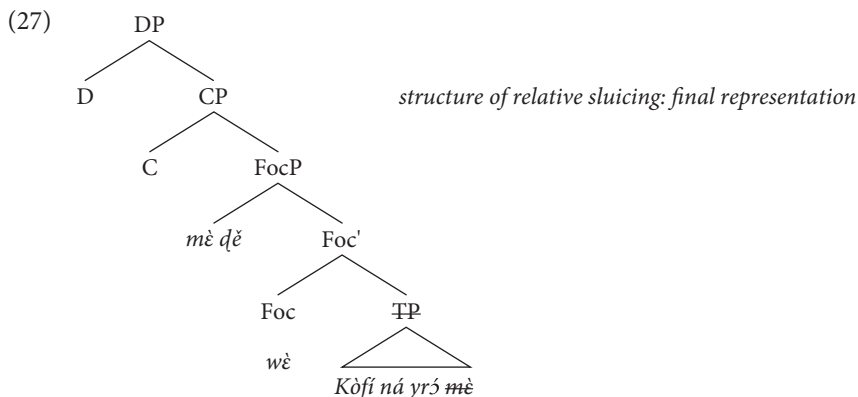
- (26) a. Kòfí ná yró mề dề àmón má nyón mề dề wề  
 Kòfí FUT call person IND but 1SG.NEG know person REL FOC  
 Lit. 'Kofi will call someone, but I don't know the person who.'



The syntactic configuration in (26b) parallels standard relativization in that the relativized noun (*mề*) is in Sp,CP, and the relativizer *dề* is in C<sup>0</sup>. (26b) also parallels ordinary *wh*-sluicing and focus sluicing in that the TP complement of the Foc<sup>0</sup>-head is elided (4b). Clearly, however, this analysis is dissatisfactory as it leaves the presence of the focus marker *wề* unexplained. FocP is obligatorily projected,

but there is no focus constituent occupying Sp,FocP, though Gungbe disallows stranding of the focus head (Aboh 2004, 2010a).

For this reason we follow a different path, where the relativized noun and the relativizer form a constituent in relative sluicing (unlike in standard relativization, 18c). We further argue that this constituent occupies Sp,FocP, rather than the CP projection (27):



We suggest that *dɛ* is not a head encoding the relative  $C^0$  head in relative sluicing. Instead, *dɛ* forms a constituent with the relativized noun. The formation of this constituent underlies the derivation of a particular type of relative in Gungbe: The equivalents of headless *relatives* in other languages. In Gungbe, the term headless relatives refers to the fact that these constructions do not have an external overt head, i.e. Sp,CP is not filled. Rather, the indefinite noun phrase *mɛ* embedding the particle *dɛ* moves in the manner of *wh*- or focus movement to a relatively low left peripheral position, FocP. (The derivation may subsequently involve snowballing movement to Sp,DP as proposed in Aboh 2002, 2005, 2010b).<sup>7</sup>

An independent argument for the proposal in (27) can be found in the behaviour of complex *wh*-expressions and their relativized equivalents, such as *when*-phrases. Corresponding sequences *hwɛ-tɛ-nù* ‘what time’ and *hwɛ-dɛ-nù* ‘the time that’ contain the nouns ‘sun’ and ‘edge’ with a functional element appearing between the two.

- (28) a. *hwɛ-tɛ-nù wɛ Kɔfɪ wá?*  
 sun-Q-edge FOC Kofi come  
 ‘When did Kofi come?’  
 b. *hwɛ-dɛ-nù àsì étòn jì-vì*  
 sun-DET-edge wife his gave.birth  
 ‘{When / the time that} his wife gave birth’

A similar pattern arises with locative question expressions as well:

- (29) a. Fí-té wè Súrù yì  
 place-Q FOC Suru go  
 'Where did Suru go?'  
 b. Fé-dě íyà étòn dó-è xlán  
 place-DET mother his send-3SG to  
 'Where/that place where his mother sent him to.'

Comparing these examples, it seems reasonable to assume that *-té-* is the question operator in (28a) and (29a) and that *-dě-* in (28b) and (29b) provides the value required by *-té-* inside the question word. In these examples, we glossed this item as DET because it seems to function as a deictic element. We take this to indicate that *dě* is not a  $C^0$  head in this case, but rather part of the fronted relative phrase comparable to English *when* and *where* in adjunct relative clauses. This should not be surprising since the element *-dě-* arguably derived from the numeral *òdě* 'one'. We believe furthermore that *-té-* and *-dě-* not only have a parallel semantic function, the phrases formed with them also target the same syntactic position, Sp,FocP.

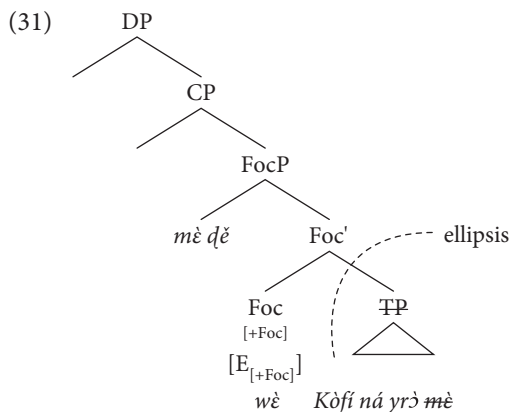
Finally, the relative pronouns figuring in (28/29) are also found in relative sluicing involving complex *wh*-expressions. The following example contains a temporal *wh*-phrase but locative *wh*-phrases are allowed as well.

- (30) ùn sè d́ Kòfí wá tò mè àmón má nyón hwè-dě-nù wè gán  
 1SG hear that Kofi come country but 1SG.NEG know sun-Q-edge FOC precisely  
 'I heard that Kofi came back home, but I don't know the precise/exact moment.'

What we are proposing for relative sluicing then is that it embodies a headless relative clause strategy in which the sluiced remnant corresponds to the relative pronoun of the headless relative.

It is important to note that such headless relatives are particularly restricted in Gungbe. For reasons that we do not understand, they seem to be limited to sluicing contexts after predicates like *nyón* and to temporal and locative adjunct clauses we illustrated above in (28/29).

While further study is needed in order to explain the limited distribution of headless relatives in Gbe and other Kwa languages (Saah 2010), the fact remains that the syntax of [E] in Gungbe being  $E_{[uFoc^*]}$ , the relative pronoun in headless relatives is a well-formed sluiced remnant: Foc<sup>0</sup> in headless relatives is capable of checking the focus feature of [E], in a local configuration that is in every respect identical to that found in ordinary *wh*-sluicing and focus sluicing, (31).



This in turn explains why the focus marker is obligatory in relative sluicing just like in *wh*-sluicing and focus sluicing: Sluicing is ellipsis of the complement of  $\text{Foc}^0$  — in all instances of sluicing. The Gungbe facts are compatible with generalization (5) and further indicate that relative sluicing can only occur in languages in which relative pronouns check the same feature as *wh*-movement in constituent questions. Whether this is the only condition for relative sluicing to be grammatical in languages we leave for further research.<sup>8</sup>

#### 4. Summary and concluding remarks

In this paper we have provided the first study of a hitherto unknown and typologically rare sluicing strategy, sluicing inside relative clauses, leaving relative pronouns as remnants. The language of study is the Niger-Congo language Gungbe, which is a focus movement language where *wh*- and focus constituents target the same left peripheral position,  $\text{FocP}$ . We have identified three types of possible remnants in sluicing: (i) *wh*-phrases, giving rise to ordinary, English-type sluicing constructions; (ii) focused phrases, giving rise to focus sluicing; and (iii) relative pronouns in headless relatives, giving rise to sluicing in relative clauses. Sluicing types (ii) and (iii) do not occur in English but are possible in Gungbe due to the fact that both focus phrases and relative pronouns in headless relatives track the syntax of *wh*-movement and check the same feature as *wh*-phrases under  $\text{Foc}$ . These findings clearly show that sluicing is typologically more wide-spread than hitherto assumed, and is not confined to English-type interrogative environments.

## Notes

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1. The precise feature specification of [E] is as follows (Merchant 2001):

- (i) a. the syntax of [E]:  $E_{[uwh^*, uQ^*]}$
- b. the phonology of [E]:  $\phi IP \rightarrow \emptyset / E \_\_\_$
- c. the semantics of [E]:  $\llbracket E \rrbracket = \lambda p : e\text{-given } (p) [p]$

2. We refer to (3b) as an ungrammatical instance of focus sluicing in English, but we are aware of the fact that in main clauses, English has two constructions which seem to show certain parallels with Hungarian: stripping (i) and fragment answers (ii):

- (i) John talked to Mary yesterday and Bill [E] too.
- (ii) Q: What did Carlos eat?  
A: Two bananas [E].

These resemble (3b) in that a focused non-wh-XP is found next to a clausal ellipsis site, which corresponds to a TP in stripping and a CP in fragment answers (see Merchant 2003, 2004 respectively). The most important difference between the grammatical (i) and (ii) and the ungrammatical (3b) is the syntactic contexts they are found in: Focal remnants are ruled out in embedded contexts but not in matrix ones. We refer the reader to van Craenenbroeck and Lipták (2006) for an explanation for this fact.

3. The *Sluicing-COMP* generalization reads as follows:

- (i) *Sluicing-COMP generalization* (Merchant 2001)  
In sluicing, no non-operator material may appear in COMP.

We contend that the reason that Gungbe spells out the focus marker necessarily in sluicing has to do with the fact that focus markers are in fact operator material.

- (ii) Kòfí ná yɾʒ mè dɛ́ bʒ ùn kànbíʒ dʒ́ ménù \*(wè)  
K. FUT call person IND but/and I ask that person.Q FOC  
'Kofi will call someone and I wonder who.'

4. Aside Gbe languages, another language that was found to exhibit this kind of sluicing is Brazilian Portuguese. Rodrigues et al. (2009) argue that the following example contains a free relative complement to the verb *conheço*:

- (i) O João beijou alguém, mas eu não conheço quem.  
the J. kissed someone but I not know whom  
'João kissed someone but I don't know who.'

A question that we plan to investigate in future work is what factor determines the occurrence of relative sluicing across languages. This paper focuses on the specifics of relative sluicing in Gungbe only.

5. See Aboh (2010) for discussion on similar predicates and their relation to the so-called inherent complement verbs (Essegbey 1999).

6. A reviewer remarked that further evidence that *nyón*-type predicates select for an embedded relative clause as opposed to *kànbíś*-type predicates could be sought in island effects. The rationale here is that because *nyón*-type predicates select for an embedded relative clause, these should be subject to the complex NP constraint (CNPC) and exclude long extraction. Interestingly, however, these clauses appear to violate the CNPC.

- (i) ùn nyón èn dḡ Kòfí ná dà Asíba  
 1SG know 3SG that Kòfí FUT marry Asiba  
 'I know it that kofi will marry Asiba'
- (ii) ménù wè à nyón èn dḡ Kòfí ná dà ménù ?  
 Who FOC 2SG know 3SG that Kofi FUT marry  
 'Who do you know that Kofi will marry?'

These facts need not be interpreted as counter-evidence against the view developed in this paper, though. Interestingly, these constructions appear to belong to a restricted set of constructions which Cinque (2010: 82) has shown to allow such violations cross-linguistically. According to Cinque, "such violations are apparently possible under rather stringent conditions: The head of the relative clause must be indefinite and nonspecific; the verb of which the head is an argument must be an existential verb, or a verb like *know*". Needless to say that this characterization seems to apply to the Gungbe cases as well, thus confirming Cinque's generalization. We hope to return to this issue in future work.

7. A different approach to account for the constituency of *mè dḡ* and its position in the left periphery would be to assume that this element adjoins to the TP and reprojects into a NP/DP (Rodrigues et al. 2009; Donati & Cecchetto 2011).

- (i) [<sub>DP/NP</sub> *mè dḡ*<sub>i</sub> [<sub>TP</sub> *t<sub>i</sub>*]]

First, this analysis fails to account for the snowballing movement observed in relative clauses as discussed in Aboh (2005). Second, it cannot account for the obligatory presence of the focus marker *wè* in such structures. Because *wè* is a left peripheral head, this scenario requires a FocP projection between the DP/NP and the TP, together with another projection that hosts the relative pronoun in its specifier (not in an adjoined position).

8. It is quite possible that next to the syntactic condition on relative sluicing in (5), other conditions are also required to be fulfilled for a language to have relative sluicing. One non-syntactic condition might be prosodic in nature, as the Hungarian relative sluicing pattern illustrated in (7) requires accent both on the relative pronoun and the relativized head:

- (i) Ezért tartunk 'ott, 'ahol.  
 this.for be.PRES.3PL there REL.where  
 lit. 'For this reason we are wherever we are.'

Note that a similar effect cannot be observed in Gungbe as it is a tone language.

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### *Authors' addresses*

Anikó Lipták  
Leiden University Centre for Linguistics  
P.O. Box 9515  
2300 RA Leiden, The Netherlands  
A.Liptak@hum.leidenuniv.nl

Enoch O. Aboh  
Amsterdam Center for Language and  
Communication  
Spuistraat 210  
1012 VT Amsterdam, The Netherlands  
E.O.Aboh@uva.nl