

# The semantics of the (so-called) clausal determiner *nó* in Akan (Kwa)<sup>1</sup>

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**Abstract.** In Akan (Kwa), certain embedded clauses — relative clauses, clefts, temporal clauses, and subject CPs — can be followed by a determiner homophonous to the definite article *nó*. The prior literature considers this as part of a larger phenomenon of ‘clausal determiners’ attested in several Kwa languages. Some of these approaches analyse them unitarily as *event determiners*, which mark the event of the embedded clause as pre-mentioned or as mutually known (Akan: Boadi 1974, Arkoh and Matthewson 2013; Fòngbe: Larson 2003; Gungbe: Aboh 2005; Gã: Renans 2016a, Grubic and Renans 2016). Based on original fieldwork on *nó* in relative clauses and cleft constructions, we argue against a unified analysis of clausal determiners as event determiners, showing that in relative clauses, the so-called clausal determiner operates at NP level, whereas this is not the case for cleft-*nó*.

**Keywords:** definiteness, clausal determiner, fieldwork semantics, Akan

## 1. Introduction & Previous literature

In this paper, we examine the semantics of the so-called clausal determiner *nó* in Akan (Kwa, Niger-Congo). *Nó* is an NP-determiner (NP-*nó*) which marks definiteness, as shown in (1).

- (1) Mè-tò-ò      àtààdéé bí      ènórà.      Àtààdéé nó yé fè.  
1SG-buy-PST dress      INDF yesterday dress      DEF COP nice  
‘I bought a dress yesterday. **The dress** is nice.’

However, *nó* also occurs as a clause-final element in embedded clauses such as a relative clause (RC-*nó*), as in (2a), cleft (cleft-*nó*), as in (2b), a temporal adverbial clause, as in (3a), and a complement subject clause, as in (3b). Thus, *nó* is referred to as a clausal determiner in constructions such as in (2)–(3), see e.g. Saah (1994).

- (2) a. Pàpá [á ò-sá-àyé      **nó**] á-bré.  
man REL 3SG-dance-PST NO PERF-tire out  
(lit.) ‘man that danced NO is tired out’ (RC-*nó*)  
b. Kofi nà ò-sá-àyé      **nó**.  
Kofi PRT 3SG-dance-PST NO  
‘It was KOFI who danced.’ (Cleft-*nó*)
- (3) a. Kofi sá-àyé      **nó**, Kwaku ò-ì      àhùrùsíé.  
Kofi dance-PST NO Kwaku eat-PST cheer  
‘When Kofi danced, Kwaku cheered.’ (Temporal Adverbial)

<sup>1</sup>Unless indicated otherwise, the data were collected in our own fieldwork. Glosses: 1/3 = 1st/3rd person, COMP = complementizer, COND = conditional, COP = copula, DEF = definite, FUT = future, IMPF = imperfective, INA = inanimate, INDF = indefinite, LOC = locative, NEG = negation, NO = *nó*, PERF = perfect, PL = plural, POSS = possessive, PROG = progressive, PRT = particle, PST = past, REL = relative clause, SG = singular. We thank all our language consultants, especially Emmanuel, Eric, Kwaku, the second Kwaku, and Owusua, as well as the audiences at Triple A 5 and Sinn und Bedeutung 23 for their comments. All remaining errors are our own.

- b. SÉ Kofi túmí sá-àyé nó mà-à Kwaku ání gyè-èyè.  
 COMP Kofi be.able dance-PST NO cause-PST Kwaku eyes receive-PST  
 ‘That Kofi was able to dance made Kwaku happy.’ (Subject CP)

The use of a definite determiner in embedded clauses is not unique to Akan but has been reported for many Kwa languages, including Fóngebe (Lefebvre, 1992, 1998), Gungbe (Aboh, 2005), Ewe (Ameka, 1991), Gã (Dakubu, 1992; Renans, 2016a; Grubic and Renans, 2016; Renans, 2016b; Korsah, 2017), Logba (Dorvlo, 2008), as well as for other language families such as Gur (Mabia), e.g. Bùlì (Hiraiwa, 2002), Benue-Congo, e.g. Yòrùbá (Lefebvre, 1992), Kru, e.g. Vata (Hiraiwa, 2002) and Haitian Creole (Lefebvre, 1992). Generally, the so-called clausal determiner has been summarily analyzed as either marking a part of the information as backgrounded (Ameka 1991 for Ewe; Grubic 2015; Grubic and Renans 2016 for Ngamo), marking the event of the embedded clause as (weakly) familiar (Gã, Renans 2016a, b; Grubic and Renans 2016), related to something pre-mentioned or mutually known (Fóngebe, Lefebvre and Brousseau 2002), or simply marking some old information (Bùlì, Hiraiwa 2002).

Similarly, in Akan, *nó* in embedded clauses as in (2)–(3) has been analyzed as an *event* determiner indicating old/known information (Saah, 1994, 2010), mutual knowledge (Arkoh, 2011), familiarity (Arkoh and Matthewson, 2013) and presupposed information (Amfo and Fretheim, 2005). Thus, the prevailing analyses argue for a unified account of clausal determiners.

In this paper, however, we present a systematic study of *nó* in relative clauses (RC-*nó*) and clefts (cleft-*nó*) and show that a unified account of clausal determiners as event determiners is not tenable. Our data show that while RC-*nó* behaves semantically like NP-*nó*, cleft-*nó* has a different semantic function from NP-*nó* and RC-*nó*. The rest of the paper proceeds as follows: Section 2 discusses the main data supporting our analysis of RC-*nó* as a run-of-the-mill determiner. Section 3 presents an analysis of RC-*nó* and NP-*nó* data. Section 4 describes the differing behaviour of cleft-*nó*. Section 5 presents the summary and conclusion.

## 2. Data: NP-*nó* and RC-*nó*

### 2.1. Language & Method

Before turning to the main argumentation, this section presents some basic facts about the Akan language and about the methods used in data collection. Akan (Kwa, Niger-Congo) is a group of mutually intelligible dialects spoken mostly in Ghana. The data in this paper come from the Asante Twi dialect of the language (2.8 mio speakers, Lewis et al. (2018)), which, like other major varieties of Akan, has its own orthography (adopted here), and which has been described as the *de facto* national working language in Ghana. Akan, and in particular Asante Twi, has SVO as its basic word order, and distinguishes between high (´) and low (˘) tones. Concerning DP-syntax, most NP modifiers (adjectives, RCs), as well as determiners, follow the noun.

Most data presented in this paper come from elicitations with five speakers of Asante Twi in Berlin/Potsdam (Germany), who carried out translation and felicity judgement tasks following the guidelines for semantic fieldwork found in Matthewson 2004. Each sentence was seen by at least two speakers. The judgments were subsequently corroborated by one of the authors of this paper, Reginald Duah, who is a native speaker of Asante Twi. We additionally conducted a written questionnaire on cleft-*nó* with twenty Akan speakers at the University of Ghana, Legon.

## 2.2. The definite article *nó*

Our main claim is that RC-*nó* is a variant of the run-of-the-mill determiner (NP-*nó*). This section outlines the basic properties of this determiner, which is argued to be a definite determiner encoding uniqueness, *pace* Arkoh and Matthewson (2013). Starting with its definiteness status, *nó* does not pass a number of diagnostics for indefiniteness presented in Matthewson 1999, unlike the indefinite *bí*. First, as shown in (4), an NP containing *nó* (here: *à-nòmàá nó* ‘the bird’) cannot refer to an entity introduced by a potential antecedent that is not unique (here: the plural *̀ǹnòmàá ̀̀m̀m̀ìè̀ǹsá* ‘birds’).

- (4) Dúá bí sì ̀̀m̀p̀ó̀má nó ákyí, nà ̀̀ǹ-̀ǹòmáá ̀̀m̀m̀ìè̀ǹsá sí só.  
 tree INDF be.on window DEF behind and PL-bird three be.on top  
 ‘There is a tree behind the window, and three birds are sitting on it.’  
 ... ̀̀m̀-̀m̀à̀r̀í̀máá nó nyínáá hù-ù à-̀̀ǹòmáá #nó / bí  
 ... PL-boy DEF all see-PST SG-bird DEF / INDF  
 ‘All the boys saw #the / a bird.’

Second, unlike NPs containing the indefinite determiner *bí*, *nó*-NPs cannot introduce new referents that are not known to be unique:

- (5) Context (adapted): Nana starts a conversation with a stranger: *Yesterday, I was at the bar and...*  
 ...pàpá #no / bí bà-à hò. Pàpá nó kyèá-à òbíará.  
 Man DEF / INDF arrive-PST there man DEF greet-PST everybody  
 ‘#The/A man arrived. The man greeted everybody.’

Comment: [*Nó*-variant] *The person knows the papa. If you don’t know him you can’t say the sentence.*

Finally, two *nó*-NPs with the same nominal property (here: *àkwàdàá* ‘child’) cannot refer to two different entities. This is not the case for *bí*.

- (6) Context: A teacher at a nursery school is explaining how her first day went. She doesn’t know the other person very well, and they haven’t talked about anyone before: *It was crazy, and I didn’t have time to do anything...*  
 T: Ná àkwàdàá #nó / bí r̀̀-̀̀sú nà àkwàdàá #nó / bí ré-dí àgóró.  
 PRT child DEF / INDF PROG-cry and child DEF / INDF PROG-eat game  
 ‘#The/A child was crying and #the/a child was playing’.

Having established that *nó* is a definite determiner, the question arises what exactly it encodes. In Arkoh and Matthewson (2013), *nó* was characterized as a familiarity definite in the sense of Schwarz (2009). In Schwarz’s original proposal—though not necessarily in Arkoh and Matthewson (2013), who modify the definition—familiarity definites are only licensed in anaphora contexts (reference to an overt antecedent, e.g. (7)), and some cases of bridging.

- (7) M̀̀-̀̀t̀̀-̀̀ò̀̀ ò̀̀ à̀̀t̀̀à̀d̀̀é̀é bí è̀̀ǹó̀rà. À̀̀t̀̀à̀d̀̀é̀é nó yé f̀̀è.  
 1SG-buy-PST dress INDF yesterday Dress DEF COP nice  
 ‘I bought a dress yesterday. **The dress** is nice.’ (Bombi, 2018: 148)

However, as shown in Bombi (2018), *nó* can also be found in uses characteristic of uniqueness definites in the sense of Schwarz (2009), such as larger situations, as in (8), immediate

situations, as in (9a), as well as (part-whole) bridging, as in (10).

- (8) Context: Afia is sitting on a bus, when a woman she doesn't know sits down beside her.  
The woman says:

Àwìà nó ré-b̀ ènné.

sun DEF PROG-hit today

'The sun is shining today.'

(Bombi, 2018: 150)

- (9) a. Context: Kofi and Amma are in the market. Amma disappears and comes back with one dress in her hands. Kofi says:

Mè-p̀ è àtààdéé nó.

1SG-like dress DEF

'I like the dress.'

(Bombi, 2018: 150)

- b. Context: Kofi and Amma are in the market. Amma disappears and comes back with several dresses in her hands. ⇒ *nó* is **not possible** in this context.

- (10) Beginning of a newspaper article: *Recently, there was a government meeting ...*

a. òmànpànyín nó dùrù-ù hó ànàdwó ò-nón dú.

president DEF arrive-PST there night PL-bell ten

'The president arrived at 10pm.'

b. #òsòáfóó nó dùrù-ù hó ànàdwó ò-nón dú.

minister DEF arrive-PST there night PL-bell ten

'The minister arrived at 10pm.'

In light of this, *nó* is more adequately characterised as a definite which, similar to English *the*, can appear in both uniqueness and familiarity contexts (see Bombi 2018 for more details).<sup>2</sup>

### 2.3. Comparison of RC-*nó* and NP-*nó*

Having characterised NP-*nó*, we can now turn to its relative clause counterpart. What we show is that it displays the same semantic properties as NP-*nó*.

First, RC-*nó* does not pass the indefiniteness tests presented in the previous section, showing that the determiner contributes definiteness. By contrast, the same sentences are felicitous with the indefinite *bí*. First, a plural NP cannot serve as an antecedent to an RC-*nó* construction, as shown in (11) (cf. (4), the equivalent NP-*nó* example).

- (11) Dùá bí sì m̀pómá nó ákýí, nà ò-nòmáá m̀m̀m̀ènsá sí só.

tree INDF be.on window DEF behind and PL-bird three be.on top

'There is a tree behind the window, and three birds are sitting on it.'

a. ... m̀m̀m̀arímá nó nyìnáá hù-ù à-nòmáá bí [à ò-sí dùá nó só].

... PL-boy DEF all see-PST SG-bird INDF REL 3SG-sit tree DEF on

'All the boys saw a bird sitting on the tree.'

b. #... m̀m̀m̀arímá nó nyìnáá hù-ù à-nòmáá [à ò-sí dùá nó só nó].

... PL-boy DEF all see-PST SG-bird REL 3SG-sit tree DEF on NO

'All the boys saw the bird sitting on the tree.'

<sup>2</sup>In §3 we analyse *nó* as a Fregean uniqueness definite, which we assume to also capture familiarity contexts. We thereby do not imply that *nó* is a uniqueness definite *sensu* Schwarz (2009), i.e. limited to uniqueness contexts.

Second, like NP-*nó* in (5), RC-*nó* constructions cannot introduce new referents (12).

- (12) Context: Nana starts a conversation with a stranger: *Yesterday I was at the bar and...*
- a. ... **pápá bí** [à ò-téná-à Berlin] bà-à hó.  
 ... Man INDF REL sit-PST Berlin arrive-PST there  
 ‘A man who lived in Berlin arrived.’
- b. #... **pàpá** [à ò-téná-à Berlin **nó**] bà-à hó.  
 ... Man REL 3SG-sit-PST Berlin NO arrive-PST there  
 ‘The man who lived in Berlin arrived.’

Finally, as shown in (13), two RC-*nó* constructions with the same NP+RC property cannot refer to two different entities, similar to NP-*nó* in (6).

- (13) Context: A teacher at a nursery school is explaining how her first day went. She works at an international school with children from all around the world—for example, there are several children from Spain, several children from England, several children from Italy, etc. The teacher doesn’t know the other person very well, and they haven’t talked about anyone before. The teacher says: *It was crazy, and I had no time to do anything...*
- a. ... **Àbòfrá bí** [à ò-fírí Spain] rè-sú nà (**àbòfrá**) (**bààkó**) bí  
 ... child INDF REL 3SG-from Spain PROG-cry and child one INDF  
 [à ò-fírí Spain] ré-dí àgóró.  
 REL 3SG-from Spain PROG-eat game  
 ‘A child who was from Spain was crying and (another) child who was from Spain was playing.’
- b. ... #**Àbòfrá** [à ò-fírí Spain **nó**] rè-sú nà **àbòfrá** [à ò-fírí  
 ... child REL 3RD-from Spain NO 3SG-PROG-cry and child REL 3SG-from  
 Spain **nó**] ré-dí àgóró.  
 Spain NO PROG-eat game  
 ‘The child who was from Spain was crying and the child who was from Spain was playing.’

These diagnostics support the idea that RC-*nó*, like NP-*nó*, contributes definiteness at NP level. Additionally, like with NP-*nó*, there is evidence that uniqueness is a notion relevant for the distribution of RC-*nó*. Consider (14) and the equivalent NP-*nó* example in (10).

- (14) Beginning of a newspaper article: *Recently, there was a government meeting ...*
- a. ... **òsòáfóó** [á ó-hwé àmmáméré só **nó**] dùrù-ù hó ànàdwó ò-nón  
 ... minister REL 3SG-look culture top NO arrive-PST there night PL-bell  
 dú.  
 ten  
 ‘The minister of culture arrived at 10pm.’ (lit. minister who looks on culture)
- b. ... #**òpànyín** [á ò-fírí Kumase **nó**].  
 ... elder REL 3SG-come.from Kumase NO  
 ‘The elder who comes from Kumase arrived at 10pm.’

In (14a), RC-*nó* is felicitous. This is because, by common knowledge, it is in the common ground that a country only has one minister of culture, licensing *nó*. By contrast, in (14b) uniqueness is not guaranteed: typically, in each Ghanaian town there is more than one elder. In

this context, RC-*nó* is not acceptable. Similar observations apply to (15):

- (15) Context: Dufie and Priscilla go to a party. During the party, they watch one man dancing. On the following day, Dufie says to Priscilla:
- a. **Pàpá** [á ná ò-ré-sá **nó**] bìsá-à mè mè nómà.  
 man REL IMPF 3SG-PROG-dance NO ask-PST 1SG 1SG.POSS number  
 ‘The man who was dancing asked me for my number.’
- b. Same context, but there are several men dancing  
 ⇒ RC-*nó* cannot be used.

In (15a) the situation described by Dufie (witnessed by both interlocutors) contains only one man dancing, licensing RC-*nó*. By contrast, if the same situation contains several dancers, as in (15b), the expression becomes infelicitous. Note that the uniqueness applies to the NP+RC property ( $\approx$  there was only one man who was dancing), rather than just the RC-property ( $\approx$  there was only one entity dancing), an option suggested by a reviewer. Indeed, as shown in (16), the RC-*nó* construction (here: *The man who was dancing*) is felicitous even if there were many female dancers in addition to the man referred to by the construction.

- (16) Context: Dufie and Priscilla go to a party. At the party, there are many women but only one man. Everyone is dancing. On the following day, Dufie says to Priscilla:
- Pàpá** [á ná ò-ré-sá **nó**] bìsá-à mè mè nómà.  
 man REL IMPF 3SG-PROG-dance NO ask-PST 1SG 1SG.POSS number  
 ‘The man who was dancing asked me for my number.’

Overall then, RC-*nó* passes the same indefiniteness and uniqueness diagnostics as NP-*nó*, supporting the idea that it is an instantiation of the run-of-the-mill definite determiner.

#### 2.4. Potential counterarguments

Despite the data presented so far, some examples in the literature seem to contradict our previous conclusions, suggesting, more or less explicitly, that RC-*nó* is not operating at NP-level. Here we evaluate these potential counterarguments to our analysis, and conclude that they do not hold up to scrutiny.

The first counterargument is the apparent optionality of RC-*nó*. In running examples in the literature, the clause-final *nó* is sometimes presented as optional, as shown below:

- (17) Ònípá [á mé hú-ù nó (**nó**)].  
 person REL 1SG see-PST 3SG NO  
 ‘The person that I saw.’ (Ofori 2011:247)

In (17), *nó* can but does not have to be inserted, and no difference is indicated in the translation. If RC-*nó* really is an NP-determiner, similar to English *the*, the optionality shown in (17) is unexpected. Indeed, assuming that the principle of Maximize Presupposition holds in Akan, the determiner *nó* should be inserted whenever uniqueness is satisfied in the context.

However, our own elicitations show that inserting RC-*nó* has semantic effects, undermining this idea of optionality. As shown in (18), the bare noun can be used in contexts where the individual is not unique, whereas the insertion of RC-*nó* forces a definite reading.

- (18) Context: Beginning of a Wikipedia article.  
 Barcelona yè **kùró** [à è-wó Spain (#**nó**)].  
 Barcelona COP city REL 3SG-LOC Spain NO  
 ‘Barcelona is a/the city in Spain.’<sup>3</sup>  
 Comment: [With *nó*] Maybe I was talking with somebody about Barcelona—“that city in Spain”.

Admittedly, there are cases of true optionality, as shown in (19):

- (19) Beginning of a newspaper article: *Recently, there was a government meeting...*  
**òsòáfóó** [á ó-hwé àmmáméré só (**nó**)] dùrù-ù hó ànàdwó ò-nón dú.  
 minister REL 3SG-look culture top NO arrive-PST there night PL-bell ten  
 ‘The minister of culture (lit. minister who looks on culture) arrived at 10pm.’

Here, the consultants reported no difference between the variant with *nó* and the one without, and both versions received a definite interpretation. However, it has to be noted that a similar phenomenon can be observed for NP-*nó*, as shown below.

- (20) Beginning of a newspaper article: *Recently, there was a government meeting...*  
**òmànpànyín** (**nó**) dùrù-ù hó ànàdwó ò-nòh dú.  
 president DEF arrive-PST there night PL-bell ten  
 ‘The president arrived at 10pm.’

Similar to (19), in (20) the bare noun already has a definite interpretation and adding *nó* does not seem to have any truth-conditional consequences. It has to be noted that the examples appear to have lexical restrictions: they always involved nouns referring to human entities that potentially can be addressed with a title, e.g. *president, teacher, pastor*.<sup>4</sup> Both properties are exemplified in (20). While this optionality is still puzzling if Maximize Presupposition holds, an analysis of the phenomenon will have to capture both RC-*nó* and NP-*nó* examples, supporting the idea that we are dealing with the same determiner in both cases.

The second apparent counterexample to our analysis of RC-*nó* is that it can appear even when the head noun is a *bí* indefinite, as in (21).

- (21) **Káà bí** [à Kofi dé bá-à há **nó**] yè Toyota.  
 Car INDF REL Kofi take come-PST here NO be Toyota  
 ‘The car that Kofi brought here is a Toyota.’ (Saah 2010:97)

Under the assumption that definite and indefinite determiners do not co-occur in the same phrase, this example suggests that RC-*nó* is not operating at NP-level, but it is for instance modifying some element of the embedded relative clause.

However, it turns out that in Akan indefinite-definite combinations are possible, as illustrated in (22).

- (22) Context: Dufie and Priscilla go to a party. During the party, they watch one man dancing.  
 On the following day, Dufie says to Priscilla:

<sup>3</sup>Proper nouns (of places) do not take definite articles: #*Spain no*.

<sup>4</sup>This characterization is based on preliminary evidence, to be confirmed in future research.

**Pàpá bí nó** bìsá-à mè mè nómà.  
 man INDF DEF ask-PST 1SG 1SG.POSS number  
 ‘After the party, that certain man asked me for my number.’

In this construction, the whole DP becomes definite. Additionally, judging by the speakers’ translations and comments, the NP receives the additional import that the addressee has to make an effort to retrieve the referent (so called ‘recognitional us’ of the definite, translated as *that certain, the one who*, etc., Himmelmann, 1996). There is evidence that the *bí-nó* combination in (21) with RC-*nó* and in (22) with NP-*nó* involve the same phenomenon: the RC-*nó* example also involves definiteness. As shown in (23), the RC-*nó* construction can only be used if there is only one entity with the NP+RC property (here: *one man who is dancing*).

- (23) Dufie and Priscilla go to a party. During the party, they watch one man dancing. On the following day, Dufie says to Priscilla:
- a. ... **Pàpá bí** [á ná ò-ré-sá **nó**] bìsá-à mè mè nómà.  
 ... man INDF REL IMPF 3SG-PROG-dance DEF ask-PST 1SG 1SG.POSS number  
 ‘That certain man who was dancing asked me for my number.’
- b. Same context, but there are several men dancing.  
 ⇒ RC-*nó* is infelicitous.

A further argument for treating both constructions as involving the same phenomenon is that another syntactic ordering is also possible, where the relative clause follows both *bí* and *nó*, as in (24). The reading is the same as for the alternative word order shown in (23).

- (24) Mè-rè-sùsú **àtààdéé bí nó** à mé-tó-ò ènórà.  
 1SG-PROG-try dress INDF DEF REL 1SG-buy-PST yesterday  
 ‘I am trying on that one dress that I bought yesterday.’

To sum up the data from Section 2, we argued that RC-*nó* makes the same semantic contribution as NP-*nó*, namely that of a definite determiner at NP-level, whose definition involves some notion of uniqueness. We also discussed two counterarguments to our analysis and concluded that they are not on the right track.

### 3. Analysis

This section provides an analysis of the phenomena discussed in section 2. We first introduce our analysis of *nó* (as NP- and RC-*nó*) in Section 3.1. We then address the counterarguments from Section 2.4 and provide an analysis of bare nouns in Section 3.2 as well as of the indefinite determiner *bí* and of its co-occurrence with *nó* in Section 3.3.

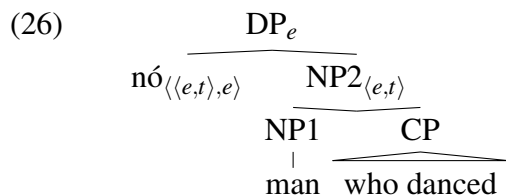
#### 3.1. Proposal for *nó*

We propose the lexical entry in (25) for *nó*, i.e. the presuppositional lexical entry assumed for the definite determiner in English in Heim and Kratzer (1998: 75, i.a.).

- (25)  $[[nó]] = \lambda P \in D_{\langle e,t \rangle} : \exists! x [P(x) = 1]. \iota x [P(x) = 1]$

Since, as argued in Section 2.4, uniqueness has to hold for an individual that has both the property denoted by the head noun and the relative clause, the argument of the determiner has to be an NP composed of the noun and the relative clause, as in (26).





We remain agnostic on how exactly the two surface word orders found with relative clauses, i.e. N-RC-det (RC-*nó*) and N-det-RC, are derived from this structure but would like to point out some observations that a syntactic account would have to capture.<sup>5</sup> First, since in the N-det-RC word order, the noun can e.g. be modified by an adjective, this word order is not derived via head movement of N to D. Second, we find some examples where NP- and RC-*nó* co-occur, see example (27a), which was judged as interchangeable with (27bc) (other languages with determiner doubling include for example Greek, Hebrew, Arabic, Romanian; see Alexiadou 2014 and Plank 2003 for extensive discussions).<sup>6</sup>

- (27) Context: Dufie and Priscilla go to a party. At the party, there are many women but only one man. Everyone is dancing. On the following day, Dufie says to Priscilla:
- a. Pàpá **nó** [á ná ò-ré-sá **nó**] bìsá-à mè mè nómà.  
man DEF REL IMPF 3RD-PROG-dance DEF ask-PERF 1SG 1SG.POSS number
  - b. Pàpá **nó** [á ná ò-ré-sá] bìsá-à mè mè nómà.  
man DEF REL IMPF 3RD-PROG-dance ask-PERF 1SG 1SG.POSS number
  - c. Pàpá [á ná ò-ré-sá **nó**] bìsá-à mè mè nómà.  
man REL IMPF 3RD-PROG-dance DEF ask-PERF 1SG 1SG.POSS number  
'The man who was dancing asked me for my number.'

Third, in principle it is possible to derive the different orderings via NP-movement to Spec-DP (see e.g. Cinque's 2004 analysis of Romanian, pace e.g. Giusti 1995): the N-det-RC word order would be derived by moving NP1 and the N-RC-det order would be derived by moving NP2 (our RC-*nó* construction).<sup>7</sup> However, this derivation becomes problematic when considering the combination with *bí*: as shown in examples (23)–(24) above, the word orders N-bi-RC-no and N-bi-no-RC are possible. Crucially, however, N-RC-bi-no is ungrammatical. It is not immediately apparent why the movement of NP2 cannot work for the latter construction and thus account for all the observations made here.

### 3.2. The interpretation of bare nouns

In section 2.4, we showed that bare nouns in Akan are usually indefinite. We also presented some examples of definite bare nouns but noted that they had a rather restricted distribution (pace Arkoh and Matthewson, 2013). This section presents an account of bare noun distribution, based on some additional data.

<sup>5</sup>McCracken (2013: 16), noting that different Kwa languages differ concerning the relative linear order of the relative clause and the determiner, simply hypothesizes that the reason for the variation in Akan could be language change, i.e. a switch from one word order to the other.

<sup>6</sup>Though sometimes the double *nó* variant was preferred in elicitation. The source of preference is unclear to us and is left for further research.

<sup>7</sup>See for example Aboh 2005 for a phrasal movement account for Gungbe as well as de Vries 2002, as discussed in Salzmann 2017: 129.

Starting with indefinite readings, bare nouns can receive a narrow-scope but not a wide-scope existential reading, as shown in (28) (based on an example in Deal and Nee, 2018). They can also have a kind reading, as demonstrated in (29).

- (28) *Wide-scope indefinite*: There are 4 dogs and 3 of them are in a basket. We want to say there's one that is not in the basket [...]:

**òkrámáń** #(bààkó) ñ-hyé kèntéń nó mú.  
 dog one NEG-be basket DEF in  
 'A dog isn't in the basket.'

Comment: [with the bare noun] It means there is no dog in the basket.

- (29) *Kind reading*: [A children's biology book] describes animals of different types - mice, rats, pigs... Then [a further animal] is described:

**Krámáń** ñ-yé nà.  
 dog NEG-be rare  
 (lit.) 'Dog isn't rare.'

In Section 2.4 we presented some examples where bare nouns seemed to have a definite interpretation, apparently contradicting our previous claim. However, these kinds of examples are very restricted. In particular, they are not possible in anaphora contexts, as shown in (30), and situational uniqueness contexts, as presented in (31).

- (30) *Anaphora*:

Mè-tò-ò àtààdéé bí ñnórà. **Àtààdéé** #(nó) yé fè.  
 1SG-buy-PST dress INDF yesterday. Dress DEF COP nice  
 'I bought a dress yesterday. The dress was nice.'

- (31) *Situational uniqueness*: Badu goes to a naming ceremony [...].<sup>8</sup> After the libations, everybody is waiting for the next step to happen. A relative of the child approaches Bediako. They haven't spoken before or talked about anyone. The relative says:

**Àkwàdàá** #(nó) rè-sú ñtí ñpànyìnfóó nó bé-twéń á-mà nó  
 Child DEF PROG-cry so elders DEF FUT-wait PERF-give 3SG.PRON  
 á-gyàè.

PERF-stop

'The child is crying, so the elders will wait until he calms down.'

Instead, as we noted above, it seems that the kind of nouns that are licit as definite bare nouns, e.g. *president, teacher, minister of culture* are titles of certain unique individuals. Considering the lexical restrictions that we have observed, we are currently pursuing the hypothesis that they are to be analysed as proper nouns rather than as definite descriptions.

The interpretation of bare nouns in Akan is compatible with accounts assuming a system of typeshifts, which are only available if there are no overt determiners with the same meaning (e.g. Chierchia 1998; Dayal 2004; based on Partee 1987). For singular bare nouns of type  $\langle e, t \rangle$ , Chierchia (1998) assumes that in principle two typeshifts are possible. The first is a  $\iota$ -typeshift yielding a definite interpretation, which is blocked if the language has an overt definite determiner. In Akan, the  $\iota$ -typeshift is blocked by the definite article *nó*, explaining why the bare noun is not available in (30)–(31). For the kind of examples where a definite interpretation

<sup>8</sup>In naming ceremonies, there is usually one child who is being given a name.

(bare singular nouns)	Predictions		Findings
	Chierchia	Dayal	Akan
indefinite: wide and narrow scope <i>a particular dog/any dog</i>	✓ $\exists$	✗ –	✗ –
indefinite: only narrow scope <i>any dog</i>	✗ –	✓ $\iota$	✓ $\iota$
definite: anaphoric <i>a dress...the dress</i>	✓ $\iota$	✓ $\iota$	✗ blocked by <i>nó</i>
definite: sit. unique <i>the child</i>	✓ $\iota$	✓ $\iota$	✗ blocked by <i>nó</i>
kind <i>dog isn't rare</i>	✓ $\iota$ + int.	✓ $\iota$ + int.	✓ $\iota$ + int.

Table 1: Bare nouns: Predictions and findings

superficially appears to be available, as in (19)–(20), a proper noun analysis would account for their availability as follows. Proper nouns, being of type  $e$ , are not predicted to undergo any typeshift under Chierchia’s account, meaning that they are also not blocked in any way by *nó*. Additionally, Maximize Presupposition is not operative: proper names involve a uniqueness presupposition similar to that of NP-*nó*, and thus are not in competition in the relevant sense for this principle.

The second typeshift that Chierchia assumes is an  $\exists$ -typeshift from  $\langle e, t \rangle$  to  $\langle \langle e, t \rangle, t \rangle$  yielding an existential quantifier reading, which is blocked if there is an overt existential quantificational determiner in the language. Since we do not assume the indefinite determiner *bí* to be an existential quantificational determiner,<sup>9</sup> the  $\exists$ -typeshift should be possible for Akan (Chierchia, 1998: 374), yielding narrow and wide-scope existential readings. However, only narrow scope readings are available in Akan, mirroring the findings of Dayal (2004) for Hindi and Russian. Dayal argues instead that the  $\iota$ -typeshift is responsible for all available readings of singular bare count nouns in Hindi and Russian (see Table 1). This analysis can be adopted for Akan, if we make the additional assumption that the definiteness readings are blocked by the availability of *nó* in these contexts.<sup>10</sup>

### 3.3. Co-occurrence of *nó* and *bí*

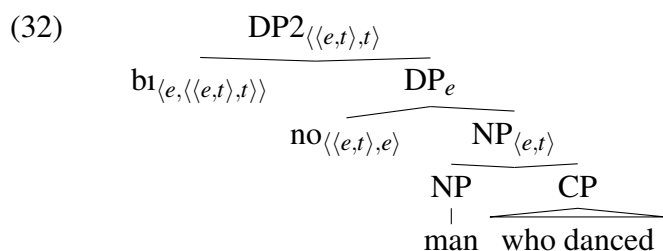
We saw in section 2.4 that the indefinite determiner can co-occur with *nó* (with both the RC-*nó* and the NP-*nó* variant) and that the construction retained a definite interpretation. To analyse this, we propose a choice function analysis of *bí*, which we justify in what follows. We posit the LF in (32). Considering this structure, an analysis of *bi* as an existential quantificational determiner of type  $\langle e, \langle \langle e, t \rangle, t \rangle \rangle$  (following Matthewson 2001) suggests itself, since it requires

<sup>9</sup>We discuss it in detail below in Section 3.3.

<sup>10</sup>This is reminiscent of English plurals (Dayal 2004). The definite determiner blocks anaphoric uses of bare nouns, but not kind readings, as shown in (i).

- (i) a. I saw some dogs<sub>i</sub>. \*(The) dogs<sub>i</sub> were wagging their tails.  
b. (\*The) dogs are widespread.

its first argument to be an individual (type  $e$ ) and the *nó*-DP is in fact of type  $e$ :



However, a careful investigation of the scope-taking properties of *bí* indefinites suggests that the determiner cannot be an existential quantificational determiner. *Bí* indefinites have the option of narrow or wide scope with respect to another operator (e.g. *pɛ* ‘want’ in (33)–(34), *biara*-QPs), which is compatible with an analysis as an existential quantifier.

(33) *Narrow scope*: Ama doesn’t know any teacher, but she believes that she would be happy as the wife of a teacher - no matter which teacher. [...]

Ama pɛ sɛ ɔkyerɛkyerɛni bí ware no.

Ama want that teacher INDF marry 3SG

‘Ama wants a teacher to marry her.’

$\forall w' \in \text{Boul}_{Ama,w}[\exists x[\text{teacher}(x) \wedge \text{marries}(Ama)(x)(w')]]$

(34) *Wide scope*: Ama dislikes most teachers, but she knows one teacher, Kwame, that she likes very much, and she wants him to marry her. [...]

→ Sentence (33) also accepted

$\exists x[\text{teacher}(x) \wedge \forall w' \in \text{Boul}_{Ama,w}[\text{marries}(Ama)(x)(w')]]$

*Bí* indefinites can also have exceptional wide scope, i.e. they appear to take scope out of an island, e.g. an *if*-clause, as presented in (35). Since quantifier movement usually obeys island restrictions, this was used as an argument against a quantifier analysis for *bí* and for an analysis of *bí* as a choice function in Arkoh (2011), following similar proposals for English *some* in Winter (1997); Reinhart (1997); Kratzer (1998).

(35) *Exceptional wide scope*: You are a member of the local government and are organizing a vote concerning a certain law. All elders are in favor of this law, but one of the elders is particularly powerful, while the others have less power. If this elder comes, the law will be passed. If only the other elders come, it is not certain. [...]

Sɛ ɔpanyin bí ba a, yɛbɛhyɛ mmra no.

if elder INDF come COND 1PL-FUT-force law DEF

‘If a (certain) elder comes. we will pass the law.’

$\exists x[\text{elder}(x) \wedge [\text{come}(x) \rightarrow \text{we-pass-the-law}]]$

However, in Akan, overt movement does not obey island constraints (e.g. Saah, 1994), as shown in (36).

(36) *Wh-movement*: You are a member of the local government and are organizing a vote concerning a certain law. There is a certain person that is in favor of this law, and very powerful. If this person comes, the law will be passed. A new colleague, whom you haven’t talked to before, approaches you and wants to know the name of this person. He asks:

**Hwan** na sɛ ɔba a yɛbɛhyɛ mmra no?  
 who PRT if 3SG-come COND 1PL-FUT-force law DEF  
 (lit.) ‘Who, if he comes, we will pass the law?’

Thus, an analysis of *bí* as an existential quantifier would still be possible, under the assumption that quantifier movement at LF does not obey island constraints either. We however assume a choice-functional analysis nevertheless, due to examples like (37). Ruys (2016) and Reinhart (1997) argue that quantifier raising out of the *if*-clause should lead to a wide-scope distributive reading (‘if any of the three elders comes, we will pass the law’). The fact that this reading is not possible in Akan suggests that a quantifier analysis for *bí* indefinites is on the wrong track. We therefore adopt Arkoh’s (2011) analysis of *bí* as a choice function, defined in (38).

(37) *Wide-scope distributive reading*: [...] All elders are in favor of this law, but three elders are particularly powerful, the others have less power. If one of these three elders comes — no matter who — the law will be passed. If only the other elders come, it is not certain that the law will be passed. [...]

#Sɛ mpanyinfo mmiensa bi ba a, yɛbɛhyɛ mmra no.  
 if elders three INDF come COND 1PL-FUT-force law DEF  
 ‘If three elders come, we will pass the law.’  
 $\exists$  three  $x$  [elders( $x$ )  $\wedge$  [come( $x$ )  $\rightarrow$  we-pass-the-law]]

(38) A function  $f$  is a choice function (CH( $f$ )) if it applies to any non-empty set and yields a member of that set. (Reinhart, 1997: 372)

Therefore, we assume the tree in (39) for the DP in example (23) above, and its meaning is derived as in (40). This accounts for the resulting inherently definite interpretation of this DP.

(39)

$$\begin{array}{c}
 \text{DP}_{2e} \\
 \hline
 \text{bi}_{\langle\langle e,t \rangle, e\rangle} \quad \text{DP}_{e \rightarrow \langle e,t \rangle} \\
 \hline
 \text{no}_{\langle\langle e,t \rangle, e\rangle} \quad \text{NP}_{\langle e,t \rangle} \\
 \hline
 \text{NP} \quad \text{CP} \\
 | \quad \hline
 \text{man} \quad \text{who danced}
 \end{array}$$

(40)  $\llbracket \text{DP}_2 \rrbracket = \exists f[\text{CF}(f) \wedge f(\lambda y. y = \iota x[\text{man-who-danced}(x)])]$ , defined iff  $\exists! x[\text{man-who-danced}(x)]$

To sum up, in this section an analysis of *nó* in relative clauses was provided which accounts for its interpretation as an NP-determiner. The so-called definite interpretation of bare NPs and the co-occurrence of *nó* with the indefinite determiner *bí* were accounted for as well. The following section discusses a further ‘clausal’ determiner *nó* and argues that the analysis presented here for RC-*nó* cannot be extended to it.

#### 4. Cleft-*nó*

As has already been discussed in Section 1, clause-final *nó* surfaces in different kinds of embedded constructions in Akan. Thus, although we have shown that RC-*nó* is not an event determiner, there are other candidate constructions for such an event/clausal determiner analysis. A good potential candidate is cleft-*nó*, as in the formal literature different cleft constructions

cross-linguistically have been linked to definite descriptions. For example, Larson (2003) analyzed Fõngbe clausal determiner as a quantificational adverb ('thely'), Renans (2016b, a) put forward an analysis of cross-categorical definite determiner *lɛ* in Gã (Kwa) as conveying the information that a discourse referent (an NP-entity or an event) is familiar and unique in bearing the property in question, Hole (2011) proposed that *de* in Mandarin Chinese *shi...de* clefts is an event determiner working on the presuppositional level and Onea (2011) proposed that the Hungarian focus structure introduces an event determiner-like operator. Also in the previous literature on Akan, cleft-*nó* has been informally described as marking the event of the embedded clause as familiar or presupposed (e.g., Saah, 1994; Ofori, 2011; Boadi, 1974).

Following these ideas, we aimed at testing whether the analysis of cleft-*nó* as introducing a definite interpretation of the event is sustainable.

#### 4.1. Event definiteness

One problem with testing for event definiteness in Akan is that Akan clefts without *nó* already trigger an existence presupposition, as demonstrated in (41) and evidenced for example by (42), which in turn entails (weak) familiarity of the event (Grubic et al., 2019):

- (41) Kofi nà ò-sá-àyé (**nó**).  
 Kofi PRT 3SG-dance-PST NO  
 'It's Kofi who danced.'  
 ~> *Somebody danced* EXISTENCE PRESUPPOSITION

- (42) Q: Who did Kofi invite to the party?  
 A: #è-ñ-yé **òbíará** nà. ò-fré-èé  
 3SG.INA-NEG-be everybody PRT 3SG-invite-PST  
 'It was NOBODY that he invited.'

Since (weak) familiarity is already introduced by the cleft structure, we tested whether cleft-*nó* marks an event as unique, another dimension that was proposed to characterize the semantic contribution of definites. Under a 'naive' approach to event uniqueness, *nó* would indicate that there was only one event of the given type in the context. This 'naive' uniqueness seemed to be borne out in elicitation, as shown in (43), but it was not confirmed empirically in a larger written questionnaire conducted with six Akan native speakers in Accra.

- (43) Context: At yesterday's party only Jojo danced: he danced to one song at the beginning of the party, one song at midnight, and one in the morning:  
 Jojo nà ò-sá-àyé (**#nó**).  
 Jojo PRT 3SG-dance-PST DEF  
 'It was JOJO who danced.'

In the previous literature on definite event determiners, it has been observed that they interact with Aktionsart and/or grammatical aspect. For example, an event determiner in Fõngbe requires a telic predicate (Larson, 2003) or an accomplishment (Lefebvre and Brousseau, 2002) and in Gã, the cleft-definite determiner in imperfective sentences is incompatible with a habitual interpretation as it invariably enforces a progressive reading (Renans, 2016b).

Looking at Akan, while the language consultant's comments to the test in (44) indicate a pos-

sible influence of tense/aspect on the acceptability of *nó*, the data in (45) show that cleft-*nó* is accepted both with atelic predicates, e.g. activities, and habituals. Moreover, a larger written questionnaire did not reveal any interplay between the aspectual interpretation of the sentence and the acceptability of cleft-*nó*.

- (44) A: I think Nana is happy at this stage in life.  
 B: Dààbí, Kofi nà n'ání gyé (#nó).  
 No Kofi PRT 3SG.POSS.eyes receive NO  
 'No, it's KOFI who is happy.'  
 Comment: *With 'no' it makes it more present, quick instance of happiness.*
- (45) Context: Amma is a writer. Your friend asks *Is it John who writes?*  
 Dààbí, èyè Amma nà (ò)twéré (no).  
 No 3SG-be Amma PRT 3SG-write NO  
 'No, it's AMMA who writes.'

Thus we didn't find any evidence suggesting that cleft-*nó* marks an event as unique.

#### 4.2. Comparison of Cleft-*nó* and NP-*nó*

Cleft-*nó*, unlike RC-*nó*, also does not mark NP uniqueness of the pivot, as illustrated in (46).<sup>11</sup> Cleft-*nó* is acceptable in (46) even though the pivot is indefinite and thus NP-*nó* cannot occur in the pivot of the cleft in (46):

- (46) Context: Bediako and Ayawa are discussing [a fist fight that broke out on TV between politicians who had] sat around one table [with] several chairs around it. [...] Ayawa says to Bediako, while discussing:  
 A: Kwasi was fighting like a madman. I think that he broke the table during the fight.  
 B: Dààbí, è-yè àkònnwá (bí)/(#nó) nà ò-bú-ùyè (nó).  
 no 3SG.INA-be chair INDF/DEF PRT 3SG-carry-PST NO  
 'No, it was A CHAIR that he broke.'

However, it seems that in order to felicitously use cleft-*nó*, the focused individual in the pivot must be prementioned or mutually known, as shown by our elicitation data in (47).

- (47) Context: You and your friends went on a holiday together. You are telling your sister that every friend picked a different sport to do during this holiday, e.g. jogging, climbing and swimming. Your sister asks you *So, who swam?* You say:  
 è-yè Kofi nà ò-dwàré-èyè (#nó).  
 3SG-be Kofi PRT 3SG-swim-PST NO  
 'It was KOFI who swam.'  
 Comment: *'no' is good in a context where you have already talked about Kofi but [the addressee] didn't realise that he's the same person who swam.*

<sup>11</sup>Note also that *cleft-nó* doesn't mark the background as definite/unique either. Percus (2006) proposed for English clefts that the background is underlyingly definite, e.g. *It was a chair that he broke*  $\approx$  *The thing he broke was a chair*. Under this analysis, the definiteness of the background is the source of the exhaustivity/existence inferences of clefts. However, all clefts in Akan give rise to these inferences, regardless of whether *nó* is present or absent, suggesting that the determiner is not responsible for them (Grubic et al., 2019).

This observation fits in with other comments suggesting that a context in which the alternatives are listed (‘Who out of ...?’) is better than typical cleft contexts (e.g., corrections), as in (48):

- (48) Context: You are telling your colleague that another colleague of yours went to Spain. He asks you: *So who is this guy who went to Spain?* You answer:  
 è-yè Kofi nà ò-kó-ò Spain (#nó)  
 3SG-be Kofi PRT 3SG-go-PST Spain NO  
 ‘It was KOFI who went to Spain.’  
 Comment: *If there are more [people, opposed to Kofi] it’s ok. Which of them? Then you can add the ‘no’*

To sum up, the data show that cleft-*nó* does not encode uniqueness of the event: it doesn’t give rise to the interpretation that there is one unique event in the context and it does not show any interaction with temporal and aspectual interpretation of the sentence (neither with lexical nor with grammatical aspect). Cleft-*nó* also does not encode the definiteness of the pivot, in a way that RC-*nó* does. However, it possibly might encode givenness/contrastiveness of pivot, which forms our current hypothesis that is to be tested in our future research.

## 5. Summary

Clause-final determiners often receive a unified analysis as event determiners in the literature. We have argued against a unified analysis of these constructions in Akan by showing that the semantic contribution of the clause-final determiner in relative clauses (RC-*nó*) and that in clefts (cleft-*nó*) differ from each other. In particular, we have shown that RC-*nó* is actually a variant of the standard NP-determiner: first, both encode uniqueness of the DP referent, and second, apparent counterarguments to this analysis—optionality of *nó*, co-occurrence with the indefinite *bí*—apply to both the relative clause determiner and the NP-determiner. For clefts, on the other hand, we have shown that the clause-final determiner does not operate at NP level. Clause-final determiners in Akan are thus not a homogeneous group. It is important to examine the different instances of these constructions separately in order to determine their semantics.

Additionally, the cleft data provide evidence for cross-linguistic variation between different kinds of clausal determiners in clefts, see e.g. Gã clausal determiners, which mark events as definite, as evidenced by their interaction with TAM-marking (Renans 2016a; Grubic and Renans 2016, see also Fõngbe, Larson 2003), and Ngamo clausal determiners in focus constructions, which mark the topic situation as definite (Grubic and Renans, 2016; Grubic, 2015).

## References

- Aboh, E. O. (2005). Deriving relative and factive clauses. In *Contributions to the thirtieth Incontro di Grammatica Generativa*, pp. 265–285. Venezia: Libreria Editrice Cafoscarina.
- Alexiadou, A. (2014). *Multiple determiners and the structure of DPs*. John Benjamins.
- Ameka, F. (1991). How discourse particles mean: The case of the Ewe “terminal” particles. *Journal of African Languages and Linguistics* 12(2), 143–170.
- Amfo, N. A. A. and T. Fretheim (2005). A relevance-theoretic approach to linguistic signaling of the cognitive status of discourse referents. In M. Vulchanova and T. Áfarli (Eds.), *Grammar and beyond: Essays in honor of Lars Hellan*, pp. 43–68. Oslo: Novus Press.
- Arkoh, R. (2011). *Semantics of Akan bi and nũ*. Master’s thesis, University of British Columbia.



- Arkoh, R. and L. Matthewson (2013). A familiar definite article in Akan. *Lingua* 123, 1–30.
- Boadi, L. A. (1974). Focus-marking in Akan. *Linguistics* 140, 5–57.
- Bombi, C. (2018). Definiteness in Akan: Familiarity and uniqueness revisited. In S. Maspong, B. Stefánsdóttir, K. Blake, and F. Davis (Eds.), *Semantics and Linguistic Theory* 28, pp. 141–160. LSA.
- Chierchia, G. (1998). Reference to kinds across languages. *Natural Language Semantics* 6(4), 339–405.
- Cinque, G. (2004). A phrasal movement analysis of the Romanian DP. In A.-M. Minuț and E. Munteanu (Eds.), *Studia linguistica et philologica in honorem D. Irimia*, pp. 129–142. Iași: Editura Universității A. I. Cuza.
- Dakubu, M. E. K. (1992). Contrast in context: Topic, focus, and definiteness in Ga. *Journal of West African Languages* 22(2), 3–16.
- Dayal, V. (2004). Number marking and (in)definiteness in kind terms. *Linguistics and Philosophy* 27, 393–450.
- de Vries, M. (2002). *The Syntax of Relativization*. Ph. D. thesis, Universiteit van Amsterdam.
- Deal, A. R. and J. Nee (2018). Bare nouns, number, and definiteness in Teotitlán del Valle Zapotec. In R. Truswell, C. Cummins, C. Heycock, B. Rabern, and H. Rohde (Eds.), *Proceedings of Sinn und Bedeutung* 21, pp. 317–334.
- Dorvlo, K. (2008). *A grammar of Logba (Ikpána)*. Ph. D. thesis, Leiden University.
- Giusti, G. (1995). Heads and modifiers among determiners: Evidence from Rumanian. In G. Cinque and G. Giusti (Eds.), *Advances in Roumanian Linguistics*, pp. 103–125. Amsterdam: Benjamins.
- Grubic, M. (2015). *Focus and Alternative Sensitivity in Ngamo (West Chadic)*. Ph. D. thesis, University of Potsdam.
- Grubic, M. and A. Renans (2016). Definiteness marking on VPs/TPs in Ga and Ngamo. In V. Hohaus and W. Rothe (Eds.), *The Semantics of African, Asian and Austronesian Languages (TripleA)* 3, pp. 1–15.
- Grubic, M., A. Renans, and R. A. Duah (2019). Focus, exhaustivity and existence in Akan, Ga and Ngamo. *Linguistics* 3(1)(103), 1–34.
- Heim, I. and A. Kratzer (1998). *Semantics in Generative Grammar*. Oxford: Blackwell.
- Hiraiwa, K. (2002). Predicate clefts in Bùli: Categories and phases. *Linguistic Analysis* 32(3–4), 544–583.
- Hole, D. (2011). The deconstruction of Chinese *shì* ... *de* clefts revisited. *Lingua* 121(11), 1707–1733.
- Korsah, S. (2017). *Issues in Kwa syntax: Pronouns and clausal determiners*. Ph. D. thesis, Universität Leipzig.
- Kratzer, A. (1998). Scope or pseudo-scope? Are there wide-scope indefinites? In S. Rothstein (Ed.), *Events in Grammar*, pp. 163–196. Dordrecht: Kluwer.
- Larson, R. K. (2003). Event descriptions in Fòñ and Haitian Creole. In D. Adone (Ed.), *Recent Development in Creole Studies*, pp. 67–90. Berlin, Boston: Max Niemeyer Verlag.
- Lefebvre, C. (1992). AGR in languages without person and number agreement: The case of the clausal determiner in Haitian and Fon. *Canadian Journal of Linguistics* 37, 137–156.
- Lefebvre, C. (1998). Multifunctionality and variation among grammars: The case of the determiner in Haitian and Fongbe. *Journal of Pidgin and Creole Languages* 13(1), 93–150.
- Lefebvre, C. and A.-M. Brousseau (2002). *A grammar of Fon*. Berlin, New York: Mouton de

- Gruyter.
- Lewis, M. P., G. F. Simons, and C. D. Fennig (Eds.) (2018). *Ethnologue: Languages of the World, Eighteenth edition*. Dallas, Texas: SIL International.
- Matthewson, L. (1999). On the interpretation of wide-scope indefinites. *Natural Language Semantics* 7, 79–134.
- Matthewson, L. (2001). Quantification and the nature of crosslinguistic variation. *Natural Language Semantics* 9(2), 145–189.
- Matthewson, L. (2004). On the methodology of semantic fieldwork. *International Journal of American Linguistics* 70(1), 369–415.
- McCracken, C. (2013). Relative clauses in Asante Twi. *Rice Working Papers in Linguistics* 4, 1–28.
- Ofori, S. A. (2011). On the basic focus marker, and the basic focus sentence, in Akan (Twi). *Nordic Journal of African Studies* 20(3), 241–262.
- Onea, E. (2011). Hungarian focus and event anaphors. Ms., University of Göttingen.
- Partee, B. (1987). Noun phrase interpretation and type-shifting principles. In J. Groejenrijk, D. de Jongh, and M. Stokhof (Eds.), *Studies in Discourse Representation Theory and the Theory of Generalized Quantifiers*, pp. 115–143. Dordrecht: Foris.
- Percus, O. (2006). Antipresuppositions. In A. Ueyama (Ed.), *Theoretical and Empirical Studies of Reference and Anaphora : Toward the Establishment of Generative Grammar as Empirical Science*. Japan Society for the Promotion of Science.
- Plank, F. (2003). Double articulation. In F. Plank (Ed.), *Noun Phrases Structure in the Languages of Europe*, pp. 337–395. Berlin: Mouton de Gruyter.
- Reinhart, T. (1997). Quantifier scope: How labor is divided between QR and Choice Functions. *Linguistics and Philosophy* 20(4), 335–397.
- Renans, A. (2016a). A cross-categorial definite determiner: evidence from Ga (Kwa). In J. C. D. B. M. Moroney, C. Little (Ed.), *Semantics and Linguistic Theory (SALT) 26*, pp. 23–42.
- Renans, A. (2016b). *Exhaustivity. On exclusive particles, clefts, and progressive aspect in Ga (Kwa)*. Ph. D. thesis, Universität Potsdam.
- Ruys, E. G. (2016). *The Scope of Indefinites*. Ph. D. thesis, Utrecht University, Utrecht.
- Saah, K. K. (1994). *Studies in Akan syntax, acquisition, and sentence processing*. Ph. D. thesis, University of Ottawa.
- Saah, K. K. (2010). Relative clauses in Akan. In E. Aboh and J. Essegbey (Eds.), *Topics in Kwa syntax*, pp. 91–107. London: Springer.
- Salzmann, M. (2017). *Reconstruction and Resumption in Indirect A'-dependencies. On the Syntax of Prolepsis and Relativization in (Swiss) German and beyond*. Berlin/Boston: De Gruyter Mouton.
- Schwarz, F. (2009). *Two Types of Definites in Natural Language*. Ph. D. thesis, University of Massachusetts Amherst.
- Winter, Y. (1997). Choice functions and the scopal semantics of indefinites. *Linguistics and Philosophy* 20(4), 399–467.