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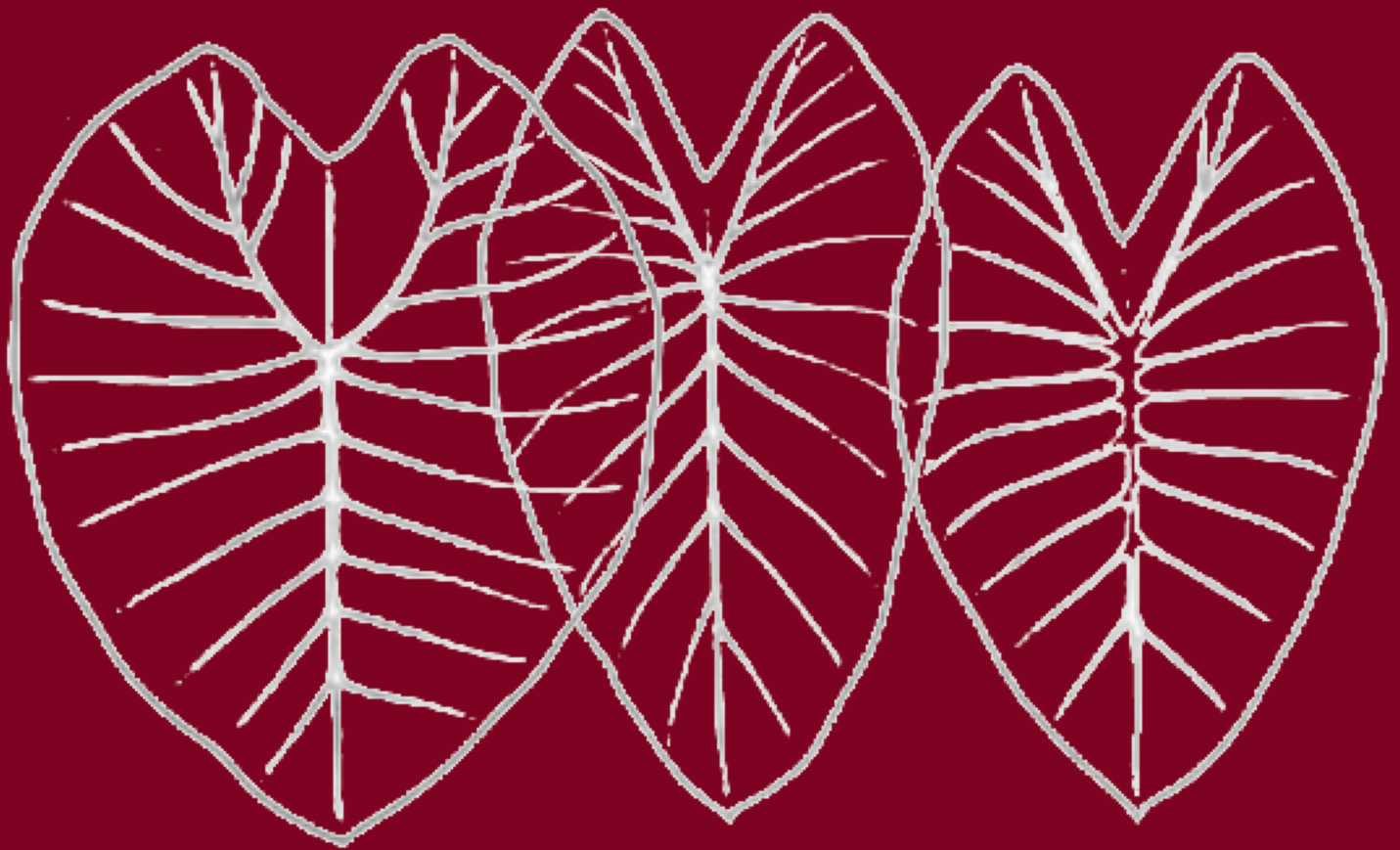
Linguistic Fieldwork and Semantic Theory

Edited by Peng Liu, Erin Sjovall, Xue Sun, Polina Berezovskaya and Vera Hohaus

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The Combination of Indefinite and Definite Determiners in Akan[1]

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Abstract.   This paper discusses the co-occurrence of the choice-functional indefinite determiner *bí* and the definite determiner *nó* in Akan. The resulting DP refers to an individual that is mutually known to be unique (i.e., this is a definite interpretation), but there is also an epistemic component, indicating that the addressee has to make an effort to retrieve the referent. We propose that this interpretation is similar to the reading found with the so-called *recognitional use* of demonstratives (Himmelmann 1996, Bombi et al. 2019), and suggest an account that attributes this component to the indefinite determiner (following research by Owusu 2019).

1   Introduction

This paper discusses the combination of definite and indefinite determiners and their interpretation in Akan, as exemplified in (1). The study shows that in Akan when a definite and indefinite determiner are combined the DP is interpreted as definite, which constitutes a puzzle for compositional analysis of the DP. We offer a solution to this puzzle by analyzing *no* as a definite determiner and *bí* as choice-functional indefinite, which in combination with *no* exhibits a so-called recognitional use, indicating an expectation, on the part of the speaker, that the addressee will have to make an effort to retrieve the referent (Himmelmann 1996).

(1)   Dufie and Priscilla go to a party. During the party, they watch one man dancing.
       On the following day, Dufie says to Priscilla: *After the party, …*

       Pàpá bí   nó *bìsá-à   mè   mè   nɔ́mà.*
       man   INDF DEF ask-PST 1SG 1SG.POSS number
       'that certain man asked me for my number.'

(2)   Same context, but there are several men dancing.
       ⇒ (1) is not acceptable.

The paper is organised into six sections. In the next section, we provide background information on the Akan language and the data collection methods employed in the study. Section 3 presents definite and indefinite determiners in Akan and their analysis in the literature. Section 4 discusses combinations of definite and indefinite, their contexts and interpretation. Section 5 provides the analysis of combinations of definite and indefinite determiners in Akan. Section 6 summarises the discussion and provides an outlook for future research.

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2 Background

2.1 Language

Akan is a Kwa (Niger-Congo) language spoken by more than forty-seven percent (47%) of the population of Ghana as a first language and about sixty percent (60%) of the rest of the population as a second or third vehicular language (Ghana Statistical Service 2013). Akan is a term that is used to refer to a collection of many (sub)ethnic dialects including Asante, Akuapem, Akyem, Kwahu, Bono, Fante, etc., spoken in the southern belt of Ghana and parts of Ivory Coast. Data for this study are taken from the Asante dialect. Figure 1 shows a map of Ghana.[2]

Figure 1: Map of Ghana

Akan is a register tone language with two tones: high (á) and low (à). The language is isolating and exhibits a rigid SVO order; adjectives and determiners follow the noun.

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[2]This map is in the public domain (URL: <https://commons.wikimedia.org/w/index.php?curid=2963962>, last accessed 6th July 2023).

2.2 Methodology

Data for this study were elicited through pen-and-paper questionnaires with language consultants between January and June 2020. We worked with twelve native Akan (Asante) speakers, two in Berlin, Germany and ten in Accra, Ghana. The language consultants were between the ages of 18 and 36. We presented our consultants with various sentences and their contexts to rate/score their acceptability and we recorded their responses and comments, following standard practice for semantic fieldwork (Matthewson 2004, among others).

3 Marking of (In)definiteness

3.1 The Definiteness Marker *nó*

The definite determiner in Akan is *nó*.[3] The definite determiner can be used anaphorically, i.e., to refer to an immediately prementioned individual. For instance, in example (3) *àtààdéɛ́ nó* refers to a dress which is the most salient dress in this context by virtue of being mentioned in the preceding sentence (Bombi 2018, Bombi et al. 2019).

(3)   I bought a dress yesterday.
       Àtààdéɛ́ nó   *yɛ́*   *fɛ̀.*
       Dress   DEF COP nice
       'The dress is nice.'

However, as in (4), the definite determiner *nó* can also be used in global situations to refer to globally unique entities like the sun (Bombi 2018). In these cases, the definite description can be used to refer to something that is mutually known to be unique, e.g., via world knowledge, but which has not been recently mentioned. (Note that this is the beginning of a conversation with a stranger.)

(4)   Beginning a conversation with a stranger:
       Àwìá nó   *rè-bɔ́*   *ɛ̀nnɛ́.*
       sun   DEF PROG-hit today
       'The sun is shining today.'

In the previous literature, the definite determiner *nó* has been analysed as encoding *strong familiarity*, which basically corresponds to anaphoricity (Schwarz 2013, 2019), *weak familiarity*, requiring merely that the referent is mutually known (Arkoh and Matthewson 2013), and *uniqueness*, in which case the referent is required to be unique (Amfo 2010, Bombi 2018).

In this study, we adopt the lexical entry proposed in Schwarz (2009), demonstrated in (5), which necessitates the additional assumption that not only salient/given individuals are in the range of the assignment function g, but in fact all weakly familiar individuals.

(5)   [[**nó**]] = $\lambda P. \lambda y: \exists!x[P(x) \ \& \ x = y].\ \iota x\ [P(x) \ \& \ x = y]$ (Schwarz 2009, simplified)

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[3]The definite determiner is homophonous with the third person singular object pronoun *nó* 'him/her'.

In this respect we follow Büring (2005, p. 29) who makes use of assignment functions for the interpretation of referring DPs, as illustrated for example in (6).

(6) [[**Sarah**$_8$]]^g = g(8) if g(8) is Sarah, undefined otherwise

It will be shown below that the co-occurence examples, which are the main topic of the current paper, provide further empirical motivation for the claim that weak familiarity, rather than strong familiarity, is expressed by *nó*.

3.2 The Indefiniteness Marker *bí*

Akan has an indefinite determiner *bí*, shown in the following examples from Bombi et al. (2019), involving diagnostics for indefiniteness taken from Matthewson (1998). Example (7) shows that when several individuals of the same kind are salient, only a *bí*-DP (indicating indefiniteness) but not a *nó*-DP (indicating definiteness) can be used to refer to one of them.

(7) Context: There is a tree behind the window, and three birds are sitting on it.
... *m̀-màrímáá nó   nyìnáá hù-ù   **à-nòmàá bí/#nó**
... PL-boy   DEF all   see-PST SG-bird   INDF/DEF
'All the boys saw a/ #the bird. '

Example (8), on the other hand, shows that only a *bí*-DP (indicating indefiniteness) but not a *nó*-DP (indicating definiteness) can be used to introduce a new, not globally/situationally unique, individual.

(8) Context: Nana starts a conversation with a stranger: *Yesterday, I was at the bar and...*
...***Pàpá bí/#nó**   bà-à   hɔ̀. Pàpá nó kyèá-à   òbíárá.
man INDF/DEF arrive-PST there man   DEF greet-PST everybody.
'A/ #The man arrived. The man greeted everybody.'

The indefinite determiner *bí* has been previously analysed as an epistemic indefinite (Owusu 2019) and/or an existential quantifier (Amfo 2010). We will, however, adopt a choice-functional (CF) analysis for *bí* with the lexical entry given in (12), following Arkoh (2011), who in turn follows similar proposals for English *some* in Winter (1997), Reinhart (1997) and Kratzer (1998).

Explaining the reasons behind adopting choice-functional analysis of *bí* requires some discussion of the scope-taking properties of the *bí*-indefinite. That is, the data show that it can take both wide and narrow scope with respect to other operators. This is exemplified in example (9), where the respective scope of the intensional verb *pɛ* ('want') and the *bí* indefinite is varied. In the narrow scope context in (9-a), a reading where the *bí*-indefinite scopes below *pɛ* is enforced. In the wide scope context in (9-b), on the other hand, the *bí*-indefinite has wide scope over the embedded verb. Crucially, the target sentence with the *bí*-indefinite was accepted in both contexts. For further examples and discussion of wide and narrow scope of *bí*-indefinites with respect to various operators, see, e.g., Arkoh (2011).

(9)   a.   **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.
      b.   **WIDE SCOPE:** Ama dislikes most teachers, but she knows one teacher, Kwame, that she likes very much, and she wants him to marry her.

> *Ama pὲ   sɛ́   **ɔkyὲrὲkyérὲní bí**   wáré   nó.*
> Ama want COMP teacher   INDF marry 3SG
> 'Ama wants a teacher to marry her.'

The *bí*-indefinite can also take so-called exceptional wide scope, as illustrated for example in (10). The relevant examples of the availability of exceptional wide scopes involve a *bì*-indefinite in a syntactic island such as an *if*-clause in (10). In English, covert movement such as quantifier raising obeys island constraints just like overt movement. Thus, if one assumes that the *bí*-indefinite is an existential quantifier and that the wide vs. narrow scope ambiguity in examples like (9) arises because of quantifier raising, one would expect this quantifier to be unable to raise out of a syntactic island, contrary to fact, as demonstrated in (10). In particular, in (10), the antecedent of the conditional is an island (cf. *Who, if comes, we will pass the law?*). Nevertheless, one would have to assume raising of the *bí*-indefinite out of this island to derive the reading found in (10) (see, e.g., Matthewson 1998, among others).

(10)   **EXCEPTIONAL WIDE SCOPE:** [...] All elders are in favor of [a certain] 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. [...]

> *Sɛ́   **ɔpànyín bí**   bá   à,   yὲ-bɛ́-hyɛ́   m̀mrá nó.*
> COMP elder   INDF come COND 1PL-FUT-force law   DEF
> 'If a (certain) elder comes, we will pass the law.'

In Akan, however, overt movement is unrestricted and, therefore, an analysis of *bí* as an existential quantifier unrestricted by islands is in principle plausible. However, as argued in Ruys (2016) and Reinhart (1997), such a quantifier raising analysis cannot account for examples such as (11) below. According to them, 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 (11) cannot receive this reading suggests that a choice-functional analysis is more promising than a quantifier analysis for the *bí*-indefinite.

(11)   **WIDE-SCOPE DISTRIBUTIVE READING:**
       context: [...] All elders are in favor of this law, but three elders are particularly powerful. 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. [...]

> *#Sɛ́   **m̀pànyìnfóɔ́ m̀mὲὲǹsá bí**   bá   à,   yὲ-bɛ́-hyɛ́   m̀mrá nó.*
> COMP elders   three   INDF come COND 1PL-FUT-force law   DEF
> 'If three elders come, we will pass the law.'

The lexical entry we adopt for *bí* is shown in (12): it takes a property of individuals as its argument and returns one individual that has this property. In addition, the variable f can be existentially bound at different levels (this will be shown below).

(12) $[[\mathbf{bí}]] = \lambda P. CF(f) \wedge f(P)$
         (It applies to a non-empty set and yields a member of that set.)

In the following, we demonstrate how the choice-functional analysis of *bí*-indefinite can account for the examples shown above. Example (13) shows how the narrow scope vs. wide scope interpretations discussed above in example (9) arise. Crucially, the difference in the interpretation does not arise via covert movement, but different location of existential closure.

(13)   Ama wants a teacher to marry her.
   a. **Narrow scope**:
       $\forall w' \in Boul_{Ama,w}[\exists f[CH(f) \wedge marries(Ama)(f(teacher))(w')]]$
   b. **Wide scope**:
       $\exists f[CH(f) \wedge \forall w' \in Boul_{Ama,w}[marries(Ama)(f(teacher))(w')]]$

Similarly, in the exceptional wide scope example in (10), no movement out of the syntactic island takes place, but the reading arises due to existential closure being located at the highest level (14). This interpretation can also be assumed for the very similar example in (11), demonstrated in (15).

(14)   If a (certain) elder comes, we pass the law.

         Exceptional wide scope:
         $\exists f[CH(f) \wedge [come(f(elder)) \rightarrow we\text{-}pass\text{-}the\text{-}law]]$

(15)   If three elders come, we pass the law
         $\exists f[CH(f) \wedge [come(f(\{Y|elder(Y) \wedge three(Y)\})) \rightarrow we\text{-}pass\text{-}the\text{-}law]]$

To summarize, in Akan the definite determiner *nó* encodes weak familiarity and refers to a mutually known individual or hearer-old information (as already proposed in Arkoh and Matthewson 2013). On the other hand, *bí* encodes indefiniteness and is analysed as a choice-functional indefinite (as proposed in Arkoh 2011). In the next section, we present the main topic of this paper: Co-occurrence of both the definite and indefinite determiners in Akan. Further relevant properties of *bí* indefinites will be discussed in Section 5 below.

4   Combination of Definiteness and Indefiniteness Markers

4.1   Co-occurrence in the Nominal Domain

In Akan, a definite and an indefinite determiner may be combined in the same DP.[4] As shown in (16), the definite determiner *nó* co-occurs with the indefinite determiner *bí* with the same noun complement.

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

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[4]The combination of definite and indefinite determiners has also been reported for other languages such as Ga and Ngamo (Duah et al. 2020, Grubic 2019).

    a. ***Pàpá bí nó*** *bìsá-à mè mè nɔ́mà.*
       man INDF DEF ask-PST 1SG 1SG.POSS number
       'that certain man asked me for my number.'

    b. *Mè dè mè nɔ́mà mà-à* ***pàpá bí nó****.*
       11SG take 11SG number give-PST man INDF DEF
       'I gave my number to that certain man.'

In (16), the indefinite determiner precedes the definite determiner, but it may also follow the definite determiner in some contexts, as illustrated in (17).

(17)   Context: Kofi attended a meeting with a group of people. Kofi tells Ama what happened during the meeting …

    a. ***Ǹkòrɔ̀fóɔ́ nó bí*** *kà-à sɛ́ wɔ̀-ré-m̀-pèné.*
       people DEF INDF say-PST COMP PL-PROG-agree
       'Some of the people said that they will not agree.' (Amfo 2010, 1796)

    b. *Dwàm̀trání nó pàmó-ò* ***ǹkòrɔ̀fóɔ́ nó bí****.*
       chairperson DEF sack-PST people DEF INDF
       'The chairperson sacked some of the people.'

In Akan, it also possible for a demonstrative, a definite determiner and an indefinite determiner to co-occur in the same DP, as demonstrated in (18). In this context, the position of the demonstrative is always before the noun, as in (18-a), but the indefinite determiner may immediately follow the noun or occur after the definite determiner, as in (18-b).

(18)   a. ***Sàá àdùàné bí nó*** *ǹyɛ̀ dɛ̀.*
       DEM food INDF DEF NEG-COP sweet
       'That certain food is not delicious.'

    b. ***Sàá ǹtòmá nó bí*** *à-sá.*
       DEM cloth DEF INDF PRF-finish
       'That certain cloth has finished.'

4.2 Co-occurrence in the Clausal Domain

Akan is a language with so-called *clausal* determiners (Bombi et al. 2019, among others), that is, determiners homophonous to or at least resembling those in the nominal domain, but which occur clause-finally in some embedded clauses. In Bombi et al. (2019), we discuss clause-final *nó*, which may occur, e.g., in a relative clause, focus-clefts, and temporal adverbial clause, as demonstrated in (19) to (21) below.

(19)   RELATIVE CLAUSE:
    Pàpá [á ɔ̀-sá-àyɛ́ ***nó****] á-brɛ́.*
    man REL 3SG-dance-PST NO PERF-tire out
    Lit. 'man that danced NO is tired out'

(20) FOCUS-CLEFT:
    *Kofi nà ɔ-sá-àyɛ́ **nó**.*
    Kofi PRT 3SG-dance-PST NO
    'It was KOFI who danced.'

(21) TEMPORAL ADVERBIAL CLAUSE:
    *Kofi sá-àyɛ́ **nó**, Kwaku dì-ì àhùrùsíé.*
    Kofi dance-PST NO Kwaku eat-PST cheer
    'When Kofi danced, Kwaku cheered.'

Interestingly, definite and indefinite determiners may also co-occur in these clausal domains. In a relative clause, the definite and indefinite determiners may co-occur as clause-final material irrespective of whether the nominal head of the relative clause is marked by a definite determiner, an indefinite determiner, as shown in (22-a), or both, as demonstrated in (22-b). Also, in the focus-cleft sentence the definite and indefinite determiners can be combined in clause-final position and the focused nominal may either be bare, as in (23-a), or it may be marked with the definite and indefinite determiners together, as in (23-b). Similarly, the definite and indefinite determiners may be combined in a temporal adverbial clause regardless of whether a DP in the main clause is marked as definite/indefinite, as in (24-a) or both determiners are combined in the DP, as in (24-b). Thus, in Akan the occurrence of both definite and indefinite determiners at clause-final position seems to be independent of the (in)definiteness status of another DP in the sentence.

(22) RELATIVE CLAUSE:

  a. ***Pàpá (bí/nó)** [á ɔ̀-bá-à há **bí nó**] á-wù.*
      man INDF/DEF REL 3SG.SBJ-come-PST here INDF DEF PRF-die
      'A/the man who came here has died.'

  b. ***Pàpá bí nó** [á ɔ̀-bá-à há **bí nó**] á-wù.*
      man INDF DEF REL 3SG.SBJ-come-PST here INDF DEF PRF-die
      'That certain man who came here has died.'

(23) FOCUS-CLEFT:

  a. *Mé nà mè frɛ́-ɛ̀ wó **bí nó**.*
      1SG PRT 1SG call-PST 2SG INDF DEF
      'It is I who called you (sometime ago).'

  b. *Màámé **bí nó** nà ɔ̀-sú téátèà-à mú **bí nó**.*
      woman INDF DEF PRT 3SG.SBJ-cry scream-PST inside INDF DEF
      'It is that certain woman who cried and screamed.'

(24) TEMPORAL ADVERBIAL CLAUSE:

  a. *Mè bá-à fíé **bí nó** ná wó sùà.*
      1SG come-PST house INDF DEF PRT 2SG be little
      'That certain time when I came to the house, you were young.'

  b. *Kofi yáré-é **bí nó** ná né wɔ̀fà **bí nó** ǹ-ní hɔ́.*
      Kofi be sick-PST INDF DEF PRT 3SG.POSS uncle INDF DEF NEG-be at there
      'That certain time when Kofi was sick, that certain uncle of his was not there.'

4.3 Previous Analyses

In the previous literature, the interpretation of the combination of definite and indefinite determiners in Akan has been suggested to depend on the relative position of the determiners. According to Amfo (2010), in the combination *bí* + *nó* the DP "is presented as an echoic metarepresentation of an earlier use of a given phrase." The idea is that in *bí* + *nó* combination, the definite determiner *nó* projects the DP containing the indefinite determiner and the noun and hence the entire DP is "grammatically definite." Conversely, in the *nó* + *bí* combination, the indefinite determiner *bí* is the higher node in the DP, rendering the DP "grammatically indefinite" (Amfo 2010, p. 1796). In the rest of the paper, we focus on the interpretation of the combination of *bí* + *nó* in the nominal domain. (See Bombi et al. 2019 for an analysis of the interpretation of the clause-final definite determiner *nó* in Akan.)

4.4 Recognitional Uses of the *bí* + *nó* Combination in the Nominal Domain

The results of our field research studies show that the combination of *bí* + *nó* in Akan exhibits a so-called *recognitional use*, indicating that the addressee has to make an effort to retrieve the referent (Himmelmann 1996). This reading is illustrated in (25) below.

(25)   Context: Kwame and Akosua are talking about different people in their hometown Kumasi and what happened to them. Kwame suddenly remembers another person that he wants to ask Akosua about. He says:

Wó kàé **tíkyàní** *(bí)* **nó***? Dèè ná Ama pɛ́ sɛ́ ɔ̀-wáré nó nó?*
2SG remember teacher INDF DEF the.one FOC Ama want that 3SG.SBJ-marry 3SG CD
'Do you remember that teacher? The one that Ama wanted to marry?'

(Consultant's comments:
"Possible with *bí*; without *bí* possible if that is the only teacher they have come across.")

The following section will discuss how our analysis of *nó* as a (weak) familiarity marker and *bí* as a choice-functional indefiniteness marker can be combined to account for this particular reading. Section 6 will then briefly point out that there are languages in which such a combination leads to a different reading (see also Duah et al. 2020).

5 Analysis of the *bí* + *nó* Combination

In the previous sections, we first defended an account of the definiteness marker *nó* as a weak familiarity marker (Roberts 2003), that is, a determiner marking the referent as mutually known or hearer-old (Arkoh and Matthewson 2013). Then we adopted the account of Arkoh (2011) suggesting that the indefiniteness marker *bí* is a choice-functional determiner (Winter 1997, Reinhart 1997, Kratzer 1998). Finally, it was shown that *bí* and *nó* can co-occur in the nominal domain, as well as in the clausal domain. In this section, we concentrate on cases where they occur in the order *bí* + *nó* in the nominal domain and in particular on its recognitional uses.
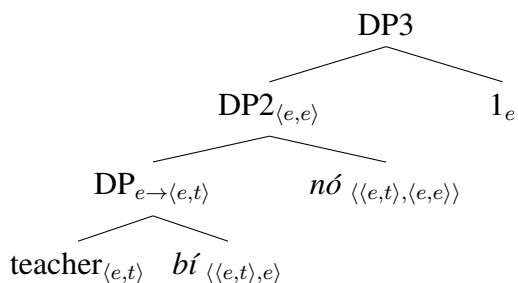
As argued in Bombi et al. (2019), the two yield a so-called *recognitional* reading when combined, see for example (26). In English, this reading is usually found with demonstratives (Himmelmann 1996, Diessel 1999).

(26) *Wó kàé*   **tíkyàní** *(bí)* **nó***? Dèὲ   ná Ama pέ   sέ   ɔ̀-wáré   nó nó?*
2SG remember teacher INDF DEF the.one FOC Ama want that 3SG.SBJ-marry 3SG CD
'Do you remember that teacher? The one that Ama wanted to marry?'

In its characteristic use, the referent is *discourse-new*. Namely, it has not been discussed in the immediately preceding discourse, but is newly introduced by the speaker. The referent is, however, also *hearer-old*, that is, it is mutually known to the speaker and hearer due to shared experience. This shared experience can be linguistic, i.e., speaker and hearer have talked about the referent in some previous discourse, or non-linguistic (Clark and Marshall 1981). The recognitional use also characteristically carries a kind of epistemic flavour: while the speaker is able to identify the referent, she is uncertain whether the hearer also is able to identify the referent, even though the referent is mutually known. For this reason, usually subsequent additional information is provided, often in form of a relative clause.

In the remainder of this section, we will present how the example in (26) can be derived compositionally. We will also discuss the source of the different meaning components, i.e., discourse-new, hearer-old, and epistemic uncertainty. Note first that the structure we assume is as in (27): the DPs are head-final, with *bí* applying to the noun first, and the resulting DP being the argument of *nó*.

(27)

DP3
DP2$_{\langle e,e \rangle}$ 1$_e$
DP$_{e \to \langle e,t \rangle}$ *nó* $_{\langle\langle e,t\rangle,\langle e,e\rangle\rangle}$
teacher$_{\langle e,t \rangle}$ *bí* $_{\langle\langle e,t\rangle,e\rangle}$

In the structure above, *bí* is proposed to have the lexical entry in (28). It indicates that there is a way— known, in this case, to the speaker but not necessarily to the addressee— of picking out a unique individual out of the set of teachers.

(28)   [[**bí**]] = λP. CF(f) ∧ f(P)
        (It applies to an non-empty set and yields a member of that set.)

This operator is then applied to the noun *tikyani* 'teacher', which denotes the set of teachers (or its characteristic function of type ⟨e,t⟩). Applying the choice-functional indefinite *bí* to the denotation of 'teacher' yields an individual, the individual picked out of the set of teachers by the choice function, i.e., the teacher individual that the speaker had in mind; see the structure and the derivation in (29) to (30) on the next page.

(29)

DP3

DP2$_{\langle e,e\rangle}$ 1$_e$

DP$_{e\rightarrow\langle e,t\rangle}$ *nó* $_{\langle\langle e,t\rangle,\langle e,e\rangle\rangle}$

teacher$_{\langle e,t\rangle}$ ***bí*** $_{\langle\langle e,t\rangle,e\rangle}$
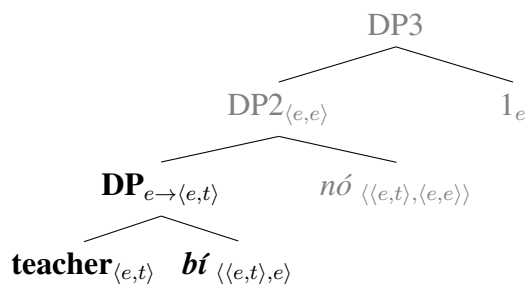
(30) [[**tikyani bí**]] = [λP. f(P)] (λz. teacher(z))
= f(λz. teacher(z))
$\approx$ the teacher individual that the speaker has in mind when uttering *tikyani bí*

The choice-functional indefinite itself usually, but not necessarily, involves that the speaker can identify the referent. For example, Kratzer (2003) discusses the following example to show that this isn't necessary the case. In (31), the anthropologist does not know who exactly the person being prayed for is (nobody does), but she knows a method to pick out the relevant individual: a function which takes a particular funeral community as an argument and returns the individual among the mourners who is the next to die.

(31) Context: After every funeral [in Mindelheim], all the mourners gathered around the still open grave say a prayer that starts with the words: "And now let us pray for the person among us who will die next." Suppose an anthropologist attended one or more funerals in Mindelheim, and reports on what she found out in a lecture using:

After the funeral, the mourners prayed for **some (particular) person** among them.

Interestingly, Kratzer notes that it isn't even necessary, for a felicitous use of (31), for the speaker to know the method of picking out the individual. A student who heard (31) in the anthropologist's lecture can also say (31) even if he doesn't know any details about how this particular person is chosen (see also Owusu 2019, for a discussion of this issue for *bí*). Kratzer argues that this suggests that choice functions are referential, since such 'chains of reference' are typical for referential items.

The definite determiner *nó* has its usual meaning: in the example at hand, it indicates that the teacher picked out via the choice function is (weakly) familiar, i.e., mutually known to speaker and hearer. *Nò* has the lexical entry in (32), based on Schwarz (2009).

(32) [[**NÓ**]]^g = λP. λy: $\exists$!x [P(x) & x = y]. ιx[P(x) & x = y]

To be able to apply this to its argument, the argument first has to undergo an IDENT typeshift (Partee 1986). The result of this is a property, the property of being the individual picked out of the set of teachers by the choice function f.

(33) IDENT typeshift from e to $\langle$e,t$\rangle$ yields:
λx [x = f(λz. teacher(z))]

Coming back to the next step of the derivation in (27), the definite determiner *nó* takes the property (DP) as its first argument and returns another property, which at first glance looks quite similar: the property of being the individual that is identical to the individual which is picked out by the choice function, as demonstrated in (34) to (35). These properties are, however, different; the difference will be discussed below.

(34)
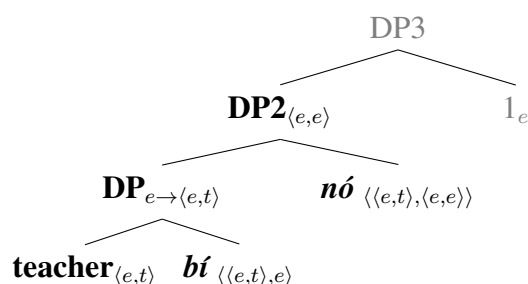
(35)   [[**tikyani bí nó**]]^g =   (Ignoring the presupposition.)
        [λP. λy. ιx [P(x) & x = y] (λx [x = f(λz. teacher(z))])]
        = λy. ιx [x = f(λz. teacher(z)) & x = y]

In the final step of the derivation, the index is added. This is a variable which is interpreted with the help of the assignment function: 1 is interpreted as g(1), i.e., the individual which the assignment function g returns for the index 1. The function in (35) is applied to this argument, returning the individual which is (i) identical to the individual picked out by the choice function f out of the set of teachers, and (ii) identical to g(1). Importantly, the condition (ii) adds the requirement that the referent is familiar (in our case, weakly familiar, i.e., speaker- and hearer-old). This is illustrated in (36) to (37) below.

(36)
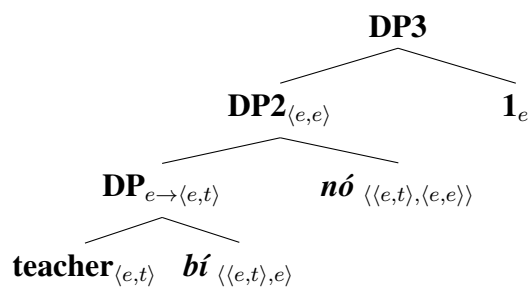
(37)   [[**tikyani bí nó 1**]]^g =
        [λy. ιx [x = f(λz. teacher(z)) & x = y]] (g(1))
        = ιx [x = f(λz. teacher(z)) & x = g(1)]
        Defined iff $\exists$!y [y = f(λz. teacher(z)) & y = g(1)]

Importantly, as argued above, as the individual picked out by the choice function (f(λz.teacher(z)))

is not known to the addressee (nor necessarily known to the speaker), the (weak) familiarity is only contributed by the definite determiner *nó*.

Weak familiarity, however, subsumes also strong familiarity/anaphoricity. It means that an immediately pre-mentioned referent is also weakly familiar. A question that immediately pops up then is why the recognitional use leads to an inference that the referent is discourse-new? This may have to do with the inferences contributed by *bí*. In particular, Owusu (2019) argues that *bí* is an epistemic indefinite. According to her, it indicates that the speaker knows some noteworthy and/or identifying property of the referent, but the speaker is ignorant of a further identifying property which is essential for "knowing" the referent, see for instance an example (38), taken from Owusu (2019, p. 268).

(38)   *Ama á-wáré   professor bí.   #Wó hwɛ́ á   ɛ̀-yɛ̀   hwáń?*
       Ama PERF-marry professor INDF 2SG- look REL 3SG-COP who
       'Ama has married some professor, guess who?'

At first glance, this seems incompatible with our data, which suggests that the referent in the *bí* + *nó* examples is speaker-identifiable, but that the speaker anticipates problems with the hearer-identifiability. Owusu, however, also notes that another agent can lack identifying information (Owusu 2019, p. 270). For example, she notes for (39) that it has a possible reading under which the speaker can identify the professor, but Nana cannot.

(39)   *Nana gyé   dí sɛ́   Ama á-wáré   **professor bí**.*
       Nana collect eat COMP Ama PERF-marry professor INDF
       'Nana believes Ama has married some professor.'
       (Nana doesn't know who.)

It seems that in our examples, the lack of identifying information needed to "know" the referent is ascribed to the addressee. This is reminiscent of German *bestimmt* (Ebert et al. 2011), with one difference: *bestimmt* indicates that some salient agent **possesses** identifying information. It can be the speaker, or the subject in cases such as (39), but importantly it can also be the addressee, as illustrated in (40) taken from Ebert et al. (2011).

(40)   *Geht Paul immer in eine bestimmte Kneipe?*
       goes paul always to a   certain   pub
       'Does Paul always go to a certain pub?'
       (Speaker expects addressee to know the pub!)

Under the hypothesis that lack of identifying information, in the case of *bí*, can also be ascribed to the addressee, our core example (26) for the recognitional use turns out to be of this kind. It remains to be seen in further work whether this only happens in questions (since both (40) and (26) are questions).

Summing up, we tentatively assume that the discourse novelty of the referent comes about via a combination of the inferences contributed by *nó* and *bí*. The combination of the inference that the referent is known to the addressee (via *nó*) and that the speaker is uncertain whether the

referent has all information needed to identify which referent she is talking about (via *bí*) leads to an inference that the referent is not salient (i.e. attended to by the addressee), and, therefore, not strongly familiar.

6   Summary and Outlook

To sum up, we started out this paper with a compositional puzzle: the co-occurrence of an indefiniteness and a definiteness marker, which are usually assumed to contribute incompatible meanings. We argued that the definiteness marker *nó* in Akan indicates that the referent is weakly familiar/hearer-old (following Arkoh and Matthewson 2013). For the indefiniteness marker *bì*, we argued that it is a choice-functional indefinite and we tentatively adopted Owusu's (2019) proposal that it marks lack of some important identifying information by a salient agent (usually the speaker).

We showed that these two ingredients together can account for the recognitional reading arising when the two markers co-occur. In particular, under a recognitional reading, the referent is mutually known to the speaker and the hearer and this part of the reading is contributed by the definiteness marker *nó*. There is, however, also a speaker assumption that the addressee will face some difficulties in identifying the referent in question and this part of the reading is contributed by *bí*. We suggest that the latter leads to the inference that the referent is discourse-new: it is not salient because this would suggest that the addressee is attending to it and thus easy to identify.

In future work, we are interested in further exploring the cross-linguistic tendency for specificity markers to be able to co-occur with definite or demonstrative determiners; see (41) for some examples (Arsenijević 2018, Grubic 2015).

(41) a. *that particular/ certain smell*
      b. *dieser bestimmte/ gewisse Geruch*   (German)
      c. *ti   neki ljudi   / taj jedan čovek*   (Serbo-Croatian)
          those some people   that one   man
          'the people' [unidentifiable$_{sp}$] / 'the man' [identifiable$_{sp}$]
      d. *à   sìyasà=ì   yo'otò ye'è*   (Ngamo)
          one.who.is politician=LNK INDF   DEF
          "the other politician"

Preliminary work from Akan, Ga (Kwa), Hausa and Ngamo (West Chadic) shows that all four languages allow for definite determiners indicating familiarity to co-occur with specific/choice-functional indefiniteness (Duah et al. 2020). However, different readings are obtained, depending both on the reading of the specificity markers and of the definite determiners. The definite determiners can differ with respect to whether they indicate weak or strong familiarity. Specific indefinites have different properties with respect to identifiability, such as possession or lack of identifying information by the speaker (Arsenijević 2018) and/or other agents (Ebert et al. 2011, Owusu 2019), as well as whether they have a strong novelty condition or not (Grubic 2019).

Another related topic that we plan to investigate in the future are combinations of *bì* and *nò*

where the determiners are reversed (see Section 4 for more examples). This typically leads to a partitive reading (Amfo 2010, Becker 2019):

(42)   ǹkùrɔ̀fóɔ́ **nó**   **bí**
       people   DEF INDF
       'Some of the people'

This very probably involves a different, partitive DP structure, but it remains to be seen in future work whether this is the case.

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