

## RESEARCH

## Morphosyntactic encoding of information structure in Akan

Elena Titov

UCL, 2 Wakefield Street, London WC1N 1PF, GB  
e.titov@ucl.ac.uk

This paper investigates the interpretive and formal properties of the so-called focus construction in Akan. It argues that Akan has only one true morphological focus marker, namely *na*, whereas the marker *de(ɛ)* that has been analysed in the linguistic literature on Akan as a focus marker (Boadi 1974; Saah 1988; Boadi 1990; Saah 1994; Marfo and Bodomo 2005) is in fact a marker of contrastive topic. The proposed analysis relies on the idea that the Akan morphological markers *na* and *de(ɛ)* carry out exactly the same interpretive function as the falling and rising prosodic markers, respectively, found in intonation languages. It is shown that a number of controversies associated with Akan information-structural marking can be accounted for by assuming a certain parallelism with intonation languages. It is demonstrated that particular types of information-structural partitioning are cross-linguistically encoded via a marked strategy, with the parametric variation resulting from the difference in the choice of the linguistic tool – syntactic, morphological or prosodic – used to create a marked representation.

**Keywords:** Akan focus constructions; Information Structure; Akan syntax; morphology; prosody

## 1 A brief introduction to Akan focus construction

Akan is a Kwa language of the Niger-Congo phylum that is spoken mainly in the central and southern parts of Ghana. Altogether, it has over 8.3 million speakers (Lewis 2009). The three literary dialects of Akan are Asante Twi, Fante and Akuapem Twi. The present paper is concerned solely with the Asante Twi dialect. Akan is a syllable-timed tone language, with high and low tones used to distinguish lexical or grammatical meaning (Dolphyne 1988; Aboh and Essegbey 2010).<sup>1</sup> The unmarked word order of Akan is SVO (Boadi 1974; Saah 1994), as in (1).

- (1) Adwoa hwe mmɔfra.  
Adwoa look.HAB children  
'Adwoa takes care of the children.'

The sentence in (1) is information-structurally neutral. It is compatible with a context that either licenses new information focus (henceforth NIF) on the entire IP, or on the VP, or on the object DP, allowing for a so-called focus projection (Reinhart 1995; 2006). In other words, the sentence in (1) can occur in contexts of questions of the type 'What's new?', or 'What does Adwoa do?', or 'Who does Adwoa take care of?'. Narrow focus on the object DP can additionally be represented via a marked strategy. That is, a question that licenses

<sup>1</sup> Following the notation in Boadi (1974); Saah (1994); Ofori (2011); Pfeil et al. (2015), among others, I have not marked lexical/grammatical tone in the examples in the paper unless it is necessary for the discussion at hand.

NIF on the object, as in (2Q), can be answered not only by a simple SVO structure in (2A1) but also by a so-called *focus construction* in (2A2).

- (2) Saah (1994: 138)
- Q: Hena na wo- huu no?  
 who FOC you- saw 3SG.ANIM  
 ‘Who was it that you saw?’
- A1: Me- huu Adwoa.  
 I- saw Adwoa  
 ‘I saw Adwoa.’
- A2: Adwoa na me- huu \*(no).  
 Adwoa FOC I- saw 3SG.ANIM  
 ‘Adwoa was who I saw.’

The focus construction in (2A2) is characterised by the focused constituent occurring leftmost in the sentence. In (2A2), it is the focused object that surfaces in this position. In (3A2), it is the focused subject. As can be seen from (2A2) and (3A2), the leftmost focused constituent is immediately followed by the morphological marker *na*, which is referred to in the linguistic literature on Akan as a *focus marker*. Moreover, the focused constituent is obligatorily doubled by the so-called *resumptive* pronoun in the thematic position that agrees with the focused constituent in number and person (see (2A2) and (3A2)).<sup>2</sup>

- (3) Q: Hena na ɔ- dii aduan no?  
 who FOC 3SG.ANIM- ate food DEF  
 ‘Who ate the food?’
- A1: #Kodwo dii aduan no.  
 Kodwo ate food DEF
- A2: Kodwo na \*(ɔ-) dii aduan no.  
 Kodwo FOC 3SG.ANIM- ate food DEF  
 ‘Kodwo ate the food.’

As can be seen from (2A1) and (3A1), Akan exhibits a subject/non-subject asymmetry in that a narrowly focused object can remain in its thematic position (see (2A1)), whereas a narrowly focused subject cannot (see (3A1)) (Boadi 1974; Saah 1994; Fiedler et al. 2010). In other words, a narrowly focused subject is obligatorily represented via a marked operation.<sup>3</sup>

The focus marker *na* found in Akan focus constructions has been analysed in the linguistic literature on Akan as not the only focus marker found in the language. The morphological marker *de(ɛ)* that occurs in the same type of construction (see (4)) has been referred to as a focus marker as well (Boadi 1974; Saah 1988; Boadi 1990; Saah 1994; Marfo and Bodomo 2005).

<sup>2</sup> As argued in Saah (1994), these pronouns cannot be analysed as repairing island violations. Nevertheless, in the linguistic literature on Akan, they are referred to as resumptive. Akan exhibits an animate/inanimate distinction in the realisation of these pronouns. Thus, pronouns resuming inanimate subjects have a distinct form (i.e.,  $\epsilon/e$ - rather than  $\text{ɔ}/\text{o}$ -), while pronouns resuming inanimate objects appear to be realised phonologically via a change in tone on the verb rather than morphologically (see also Korsah and Murphy 2017 who argue that inanimate objects are resumed by phonologically null resumptive pronouns in Akan, Asanti Twi). The realisation of resumptive pronouns found in Akan focus constructions is identical to that found in Akan restrictive relative clauses.

<sup>3</sup> Ameka (2010) argues that in all Kwa languages that have a dedicated focus marker, a subject argument that is in focus must be obligatorily marked with this marker. However, it has been claimed in the literature on Akan that non-exhaustive focused subjects do not require the presence of a marker. This issue will be addressed in Section 4.

- (4) a. Adwoa<sub>i</sub> na ɔ<sub>i</sub>- hwε mmɔfra.  
Adwoa FOC 3SG.ANIM- look.HAB children  
'Adwoa is who takes care of the children.'
- b. Adwoa<sub>i</sub> de(ε) ɔ<sub>i</sub>- hwε mmɔfra.  
Adwoa CT 3SG.ANIM- look.HAB children  
'As for Adwoa, she takes care of the children.'

In what follows I question the view of *de(ε)* as a focus marker. From the theoretical point of view, economy considerations should rule out employment of two morphologically distinct markers *na* and *de(ε)* for exactly the same information-structural (henceforth IS) interpretation. Moreover, as can be seen from the translations in (4), the interpretation of a *de(ε)*-sentence is different from that of a *na*-sentence. In Section 2, I maintain that only *na* is a true focus marker in Akan, whereas *de(ε)* is a marker of contrastive topic (CT). This conclusion is based on the interpretive and formal properties of *de(ε)*-clauses. After I have established that *na* is the only focus marker, I will proceed with an analysis of the interpretive properties of focused arguments in *na*-constructions. In Section 3, I argue that an ex-situ object obligatorily maps onto an interpretation that involves quantification over a discourse-salient set of alternatives,<sup>4</sup> resulting in either contrastive or/and exhaustive or/and emphatic construal. I demonstrate that an SVO sentence can map onto exactly the same IS interpretation, but for an in-situ object, quantification over a discourse-salient set is merely available, not obligatory. I account for this observation by adopting the interface-based approach to IS encoding that assumes mapping of syntactic representations onto IS templates that is regulated by the principles of economy (Neeleman and van de Koot 2008; Titov 2017a; b). Section 4 proceeds with an analysis of focused subjects and the question of why these obligatorily occur in focus constructions. It will be argued that a marked strategy is cross-linguistically used for the encoding of narrow focus on a subject due to subjects not belonging to the default focus set (Reinhart 1995; 2006). Section 5 offers a syntactic analysis of the *na*-construction and proposes that it is an inverse pseudo-cleft. This conclusion is empirically based on the lack of reconstruction and theoretically on the Theta Criterion ruling out a mono-clausal analysis. The proposed syntactic analysis is further supported by focus constructions having properties of restrictive relative clauses (Schachter 1973; Boadi 1974; Ofori 2011). Section 6 concludes the paper.

## 2 Markers of information structure

### 2.1 Interpretive properties of the morphological markers *na* and *de(ε)*

Both *na* and *de(ε)*-clauses are compatible with a context that licenses a contrastive construal of the object in the leftmost position (Boadi 1974; Saah 1994; contra Marfo and Bodomo 2005), as in (5) where *Adwoa* is contrasted with *Kofi*.

- (5) Q: Wo- huu Kofi anaa?  
you- saw Kofi QUP  
'Did you see Kofi?'
- A1: (Daabi) Adwoa na me- huu no (ɛnnyε Kofi).  
no Adwoa FOC I- saw 3SG.ANIM not Kofi  
'(No) Adwoa was who I saw (not Kofi).'
- A2: Adwoa de(ε) me- huu no (na Kofi de(ε) me-n-nim).  
Adwoa CT I- saw 3SG.ANIM but Kofi CT I-not-know  
'As for Adwoa, I saw her (but I don't know about Kofi).'

<sup>4</sup> In Titov (2013a), I refer to a set of contextually salient alternatives as a pragmatic set of alternatives. Here, I use the term discourse-salient set of alternatives to describe the same phenomenon.

It has been argued in the linguistic literature on Akan that *na* and *de(ε)* clauses differ in that the referent of the focused phrase in a *na*-sentence is contrasted with at least one other candidate that is excluded from the action expressed by the predicate, whereas the referent of the leftmost constituent in a *de(ε)*-sentence is contrasted with at least one other candidate for which it is not known whether she/he/it is included in the action expressed by the predicate (Boadi 1974). In (5) the relevant contextual candidate is *Kofi*. In accordance with the above, the *na*-sentence in (5A1) conveys that while *Adwoa* can provide a value for *x* in ‘I saw *x*’ within the speaker’s beliefs, *Kofi* cannot. *Kofi* is therefore excluded from the action expressed by the predicate. Conversely, the *de(ε)*-sentence in (5A2) conveys that while *Adwoa* can provide a value for *x* in ‘I saw *x*’, it is not known to the speaker whether *Kofi* can do so as well. Hence, *Kofi* may potentially be included in the action expressed by the predicate. Hence, *na* and *de(ε)* are referred to in the linguistic literature on Akan as *exclusive* and *inclusive* focus markers, respectively (Boadi 1974; Saah 1994).

The interpretation of exclusion that the marker *na* is associated with is generally taken to be captured by the IS category of *contrastive focus* (henceforth CF).<sup>5</sup> Utterances containing a CF convey the interpretation of opposition or counter-assertion to a contextually salient proposition. In (5), the contextually salient proposition is ‘I saw *Kofi*’. The sentence in (5A1) conveys that while the referent of the focused constituent *Adwoa* can fulfil the background in ‘I saw *x*’ and turn it into a true proposition within the speaker’s beliefs, a member of a discourse-salient set of alternatives *Kofi* cannot (Büring 1997). As a result, the statement in the reply in (5A1) contains a counter-assertion to the contextual proposition in (5Q).

Conversely, the interpretation of the leftmost constituent in a *de(ε)*-clause corresponds to what is traditionally taken to be expressed by the IS category of *contrastive topic* (henceforth CT). Büring (1997; 2003) analyses sentences containing a CT as having an interpretation of incompleteness. In line with that, the reply in (5A2) cannot be construed as offering a full answer to the question in (5Q). Instead, it leaves the impression that more needs to be said (as suggested by the continuation in the brackets). In (5Q), information is requested about *Kofi*, whereas the reply in (5A2) asserts that the proposition ‘I saw *x*’ is true of *Adwoa* but does not say anything about *Kofi*. That is, the reply in (5A2) does not take a firm stand on whether the referent of the subject saw *Kofi* or not (Titov 2013a).

In what follows, I will adopt the analysis of CF and CT that I propose in Titov 2013a that assumes that sentences hosting a CF or a CT, as in (5A1) and (5A2), respectively, have the same presupposition (i.e., ‘I saw *x*’) and the same focus value given in (6). However, the assertions made by (5A1) and (5A2) are different. Thus, (5A1) has the assertion that while the referent of the subject saw *Adwoa*, there is someone else relevant for the discussion at hand whom the referent of the subject did not see (cf. Boadi 1974; Saah 1994). In other words, at least one other member of the discourse-salient set that contains *Adwoa* cannot fulfil the background in (6) and turn it into a true proposition within the speaker’s beliefs. The sentence in (5A2), in contrast, conveys that it is not known to the speaker whether other members of the discourse-salient set that contains *Adwoa* can turn the background in (6) into a true proposition. In other words, both the positive and the negative truth-value of the proposition ‘I saw *Kofi*’ are compatible with the speaker’s beliefs in (5A2). The interpretations of sentences in (5A1) and (5A2) are given in (7) and (8), respectively.<sup>6</sup>

(6)  $\langle \lambda x[\text{I saw } x], \{\text{Adwoa, Ama, Kofi, Efua, ...}\} \rangle$

<sup>5</sup> I will discuss exhaustive focus that is also associated with exclusion in Section 3.

<sup>6</sup> In (7) and (8), *Dox(s)* stands for doxastically accessible worlds that represent what is true or false within the speaker’s beliefs rather than in the real world (*s* stands for ‘speaker’).

- (7) (Adapted from Titov 2013a: 32)  
*Semantics of sentences hosting a CF*  
 (a)  $\langle \lambda x[\text{I saw } x], \text{Adwoa}, \{\text{Adwoa}, \text{Ama}, \text{Kofi}, \text{Efua}, \dots\} \rangle$   
 (b)  $\exists x[x \in \{\text{Adwoa}, \text{Ama}, \text{Kofi}, \text{Efua}, \dots\} \ \& \ x \neq \text{Adwoa} \ \& \ \forall w[w \in \text{Dox}(s) \ \& \ \neg[\text{I saw } x]]]$ .
- (8) (Adapted from Titov 2013a: 32)  
*Semantics of sentences hosting a CT*  
 (a)  $\langle \lambda x[\text{I saw } x], \text{Adwoa}, \{\text{Adwoa}, \text{Ama}, \text{Kofi}, \text{Efua}, \dots\} \rangle$   
 (b)  $\exists x[x \in \{\text{Adwoa}, \text{Ama}, \text{Kofi}, \text{Efua}, \dots\} \ \& \ x \neq \text{Adwoa} \ \& \ \exists w[w \in \text{Dox}(s) \ \& \ [\text{I saw } x]] \ \& \ \exists w'[w' \in \text{Dox}(s) \ \& \ \neg[\text{I saw } x]]]$ .

As can be seen from (7a) and (8a), sentences containing either a CF or a CT have the same focus value given in (6). Hence, the difference in the interpretation of these sentences follows from the different assertions formulised in (7b) and (8b). Thus, the formula in (7b) states that there exists a member of a set of individuals to which *Adwoa* belongs but that is not *Adwoa*, and in all the worlds within the speaker's beliefs this member of the set cannot fulfil the proposition 'I saw *x*' and turn it into a true proposition. The formula in (8b), in contrast, conveys that there exists a member of a set of individuals to which *Adwoa* belongs but that is not *Adwoa*, and in some worlds within the speaker's beliefs this member of the set can fulfil the proposition 'I saw *x*' and turn it into a true proposition, while in others it cannot.

In Titov (2013a), I analyse CF and CT as the same IS category found in two distinct types of constructions. To be precise, CF and CT differ with respect to the type of focus they must co-occur with in a sentence. In particular, CF obligatorily co-occurs with a contrastive Verum Focus (henceforth VF), which results in the interpretation of counter-assertion or opposition to a contextually salient proposition.<sup>7</sup> Thus, in (5A1), the contrastive VF provides an answer to both questions under discussion – 'Did you see *Adwoa*?' and 'Did you see *Kofi*?'. This is due to the fact that when a contrastive VF gives a positive truth-value to one discourse-salient proposition (in (5A1) the relevant proposition is 'I saw *Adwoa*'), it automatically provides the other contextually salient proposition with a negative truth-value (in (5) the relevant proposition is 'I saw *Kofi*'). That is, the contrastive nature of the VF in sentences hosting a CF results in at least one contextually salient proposition receiving a truth-value that contrasts with the truth-value of the proposition of the sentence hosting a CF.

CT, conversely, obligatorily co-occurs with a non-contrastive NIF. The NIF provides an answer to only one of the questions under discussion (in (5A2) it is the question 'Did you see *Adwoa*?') but fails to provide an answer to at least one contextually salient question (in (5) it is the question 'Did you see *Kofi*?'). The presence of an unanswered question results in the interpretation of incompleteness typical of sentences hosting a CT (Büring 1997; 2003).

Unlike a CF, which consistently co-occurs with a contrastive VF, the focus with which a CT obligatorily co-occurs does not have to be a VF. That is, the restriction placed on a CT only refers to the non-contrastive nature of the focus it must co-occur with. Consequently, this can be either a non-contrastive VF, as in (5A2), or the non-contrastive focus can be expressed on a constituent (Titov 2013a). It follows, then, that if the leftmost constituent

<sup>7</sup> In Titov 2013a, I argue that a contrastive VF is not realised prosodically in sentences hosting a CF, despite being interpreted. A non-contrastive VF, conversely, is usually overtly realised. The impossibility of prosodically realising a contrastive VF in sentences hosting a CF might be due to the impossibility of having two falling contours within the same intonational phrase.

in *de(ε)*-clauses is indeed a CT, it must be able to co-occur with NIF on a constituent. This prediction is borne out (see (9A1)).

- (9) Q: Kofi dii deɛn?  
 Kofi ate what  
 ‘What did Kofi eat?’
- A1: (Kofi de(ε) me-n-nim, na...) Ama de(ε) ɔ-dii akutu.  
 Kofi CT I-not-know but Ama CT 3SG.ANIM-ate oranges  
 ‘(As for Kofi, I don’t know but) as for Ama, she ate oranges.’
- A2: #(Daabi) Ama na ɔ-dii akutu (ɛnnyɛ Kofi).  
 no Ama FOC 3SG.ANIM-ate oranges not Kofi  
 ‘(No) Ama was who ate oranges (not Kofi).’

In (9A1), the object *akutu* ‘oranges’ is linked to an in-situ *wh*-phrase in (9Q) rather than to a member of a discourse-salient set of alternatives. It must therefore be analysed as a NIF (Titov 2013a). Hence, the leftmost constituent in the *de(ε)*-clause in (9A1) co-occurs with NIF on the object DP, strongly suggesting that this constituent is a CT. The *na*-sentence in (9A2), in contrast, is absolutely incompatible with the context of (9Q) because a CF cannot co-occur with a non-contrastive focus on a constituent. Therefore, the data in (9) form a strong argument against an analysis of the marker *de(ε)* as a focus marker and in favour of an analysis of it as a CT marker. The next subsection supports this conclusion with additional tests.

## 2.2 Distribution of the morphological markers *na* and *de(ε)*

The focus marker *na* occurs not only in focus constructions but also in ex-situ *wh*-questions in Akan (see (10)).

- (10) Hena na wo- huu no?  
 who FOC you- saw 3SG.ANIM  
 ‘Who was it that you saw?’

It has been noted by a number of scholars that *wh*-categories exhibit a linguistic behaviour identical to that of foci, which has been attributed to their shared quantificational nature (Starke 2001; Rizzi 2004; Abels 2012). It has been proposed that *wh*-elements are inherently contrastively focused and, hence, bear the feature [+focus] (Stepanov 1998). Conversely, (contrastive) topics are traditionally analysed as forming a separate category, as in no language do topics exhibit a linguistic behaviour identical to that of *wh*-categories. Plausibly, this is because CTs are linked to the interpretation of incompleteness, which requires the presence of a NIF in the sentence that hosts a CT (Titov 2013a). It is, however, impossible to achieve the interpretation of NIF for a focus that occurs in a *wh*-question because whenever such a question contains an additional focused element, as in (11), this focus is interpreted as contrastive. As can be seen from (11), the constituent that is prosodically realised as a focus, i.e., *John*, is interpreted as contrasted to another member of the set to which *John* belongs, for whom no information is requested, possibly because this information is already known to the speaker. (Throughout, **boldface** represents a prosodic marker of focus.)

- (11) a. (I know who Mary saw but) who did **John** see?  
 b. I want to know who **John** saw (not Mary).

The above observation can be used as a test for the interpretive nature of the *de(ε)*-marker. If it marks a focus-like category, it should be compatible with *wh*-categories. Conversely,

if *de(ε)* is a CT-marker, it should be impossible to have this marker in a *wh*-question. As can be seen from (12), the latter prediction is borne out, i.e., *de(ε)* is incompatible with *wh*-questions (Boadi 1974; Saah 1994).

- (12) \*Hena *de(ε)* wo- huu no?  
 who CT you- saw 3SG.ANIM

Additional support for the idea that *de(ε)* marks CT comes from the observation that, unlike a *na*-marked focus, as in (13A1), a constituent followed by *de(ε)*, as in (13A2), cannot be associated with the focus-sensitive operator *nko ara* ‘only’.

- (13) Q: Kofi ne Adwoa na wo- huu wɔn?  
 Kofi and Adwoa FOC you saw 3PL  
 ‘Was it Kofi and Adwoa that you saw?’  
 A1: Adwoa *nko ara* na me- huu no.  
 Adwoa only FOC I- saw 3SG.ANIM  
 ‘It was only Adwoa who I saw.’  
 A2: \*Adwoa *nko ara de(ε)* me- huu no.  
 Adwoa only FOC I- saw 3SG.ANIM

It has been noted in the linguistic literature that the focus-sensitive operator *only* resists the interpretation of CT (Neeleman & van de Koot 2008; Wagner 2008; 2009; Titov 2013a). A possible explanation for this is that *only* is incompatible with the interpretation of incompleteness when it is discourse-new, as it adds the interpretation of contrastive VF to the construal of the sentence (Titov 2013a). That is, *only* forces exhaustive interpretation of the constituent it operates on, resulting in all propositions containing an alternative to this constituent receiving an opposite truth-value. Consequently, *only* can operate on a CF but not a CT. The fact that a constituent marked by *de(ε)* is semantically incompatible with *nko ara* ‘only’ strongly suggest that *de(ε)* is a marker of CT.

### 2.3 PF encoding of information structure within the cross-linguistic perspective

The aforementioned interpretive and formal properties of the constituent marked by *de(ε)* strongly suggest that it belongs to the IS category of CT. If so, Akan has only one true morphological marker of focus, namely the marker *na*. This makes Akan consistent with *intonation languages* that use one and the same type of marker for the expression of focus.<sup>8</sup> In intonation languages, IS interpretations of CF, NIF and CT are typically realised through *prosodic* markers. Cross-linguistically, the prosodic marker used for the expression of focus has a falling contour, whereas the one used for the CT has a (fall-)rising contour (Molnár 2002). Thus, In German, both CF and NIF are marked with a falling contour, while a CT/FOC structure has the so-called hat (or bridge) contour, with a rise on the CT and a fall on the focus. In Russian, NIF and CF are marked with the falling contours IK1 and IK2, respectively, whereas CT carries a rising contour IK3 (Bryzgunova 1971; 1981; Titov 2013a). In English and Dutch, foci are typically realized via the falling *A-accent*, whereas CTs carry a (fall)-rising *B-accent* (Jackendoff 1972). What the present paper proposes, then, is that the morphological markers *na* and *de(ε)* perform exactly the same

<sup>8</sup> The term “intonation languages” is used in the linguistic literature to refer to languages that have a more productive use of intonation for pragmatic purposes than tone languages (Saah 1994; Hartmann and Zimmermann 2007b; Féry 2013). This, of course, should not be understood to imply that tone languages do not use intonation for IS encoding or that intonation languages do not use other grammatical tools apart from prosody for IS encoding. According to Kügler and Genzel (2012), in Akan, pragmatic prominence is expressed prosodically by means of a deviation from an unmarked prosodic structure (see also Footnote 9 and the discussion on page 26 of this paper).

interpretive function in Akan, as the falling and (fall)-rising prosodic markers found in German, Russian, English and Dutch – namely, they formally distinguish a CF from a CT. Since both of these IS categories can occur in exactly the same context within the same syntactic structure, as in (14), (15) and (16), their interpretive difference must be formally represented either via prosody or morphology. In (14), this is done via the morphological markers *na* and *de(ε)*, in (15) via the prosodic markers the A- and B-accents, and in (16) via the prosodic markers IK2 and IK3. (Throughout, the constituent carrying a prosodic marker of topic appears in *italics*).<sup>9</sup>

(14) Q: Wo- huu Kofi anaa?  
you- saw Kofi QUP  
'Did you see Kofi?'

A1: (Daabi) Adwoa na me- huu no (ɛnnyɛ Kofi).  
no Adwoa FOC I- saw 3SG.ANIM not Kofi  
'(No) Adwoa was who I saw (not Kofi).'

A2: Adwoa de(ε) me-huu no... (na Kofi de(ε) me-n-nim).  
Adwoa CT I-saw 3SG/ANIM but Kofi CT I-not-know  
'As for Adwoa, I saw her (but I don't know about Kofi).'

(15) Q: Did you see John?

A1: (No), I saw **Mary**, (not John)

A2: I saw *Mary*... (but I'm not sure if I saw John as well)

(16) *Russian*

Q: Ty videl Ivana?  
you saw Ivan.ACC  
'Did you see Ivan?'

A1: (Net), **Mariju** ja videl (a ne Ivana)  
no Marija.ACC I saw and not Ivan  
'(No), I saw Marija (not Ivan).'

<sup>9</sup> The present analysis assumes that the markers *na* and *de(ε)* are used in Akan for exactly the same interpretive purpose as the A- and the B-accents in English, namely to distinguish the IS category of CF from that of CT. However, this does not imply that in either of the two languages, syntactically marked clauses that host a CF do not have any further formal differences from those containing a CT.

In English, an A'-scrambled CF is marked with an A-accent, with the rest of the sentence destressed and deaccented (see (i) where the material following the CF 'John' cannot carry any prominent intonational contours). This results in marked prosody, manifested by the lack of default sentential stress assignment by the nuclear stress rule (NSR) to the most deeply embedded syntactic position (which might be due to the impossibility of having two A-accents within the same clause).

(i) JOHN I saw (not Mary).

In contrast, in a clause containing an A'-scrambled CT, the prosody is unmarked in the sense that the main sentential stress is assigned to the most deeply embedded syntactic position by the NSR (see (ii)).

(ii) *John* I SAW (but as for Mary, I don't remember if I saw her as well).

As will be discussed in Section 5, Akan *na*-clauses also have marked prosody in that they involve particular tonal changes that are also found in restrictive relative clauses but not in unmarked SVO constructions. Marfo (2005) argues that the relevant tonal changes are directly associated with the focus marker *na*. Consequently, Akan *de(ε)*-clauses do not exhibit such changes and, by analogy with English CT/FOC clauses, have unmarked prosody.

Crucially, as is evident from Akan and English data, these accompanying formal differences between syntactically marked CF- and CT-clauses are not sufficient in either of the two languages to discriminate the IS category of CF from that of CT. It appears rather that the accompanying marked prosody in Akan *na*-constructions and English A'-scrambled CF-constructions results from the way CF is encoded in them.

A2: *Mariju* ja **videl** (a nasčēt Ivana ja ne pomnju).  
 Marija.ACC I saw and about Ivan.ACC I not remember  
 ‘As for Marija, I did see her (but I don’t remember about Ivan).’

The data in (14)–(16) demonstrate that Akan uses the morphological markers *na* and *de(ε)* for exactly the same interpretive purpose as what English and Russian use falling and (fall)-rising prosodic markers for. I will leave the question of why one language employs morphology for the same interpretive function that is prosodically realised in another language for future research. For the purpose of the present analysis it suffices to say that languages predominantly using morphological markers of IS are tone languages with minimal use of intonation for pragmatic purposes (Saah 1994; Féry 2013). According to Féry (2013), “these languages cannot add tonal information like pitch accents or boundary tones as freely as intonation languages and are obliged to use other grammatical reflexes for the expression of focus”.

The observed direct interpretive correspondence between specific prosodic markers in one language and particular morphological markers in another suggests that languages exhibit variation in the choice of the PF tool (e.g. morphological or prosodic) used for the encoding of the same IS interpretation. This hypothesis is further supported by languages such as Russian and Japanese that demonstrate an inverse parallel in the type of encoding of IS interpretations. Both languages employ prosody and morphology for the encoding of IS interpretations but while Russian uses a prosodic marker for one interpretation and a morphological marker for another, Japanese exhibits the exact opposite pattern.

Thus, we have seen that Russian productively uses prosody to distinguish CT from focus (see (16A1) and (16A2)). However, it employs morphology to discriminate CT from background, as backgrounded constituents can carry the same rising prosodic marker as CTs in Russian, i.e., IK3 (see (17A1)). To distinguish discourse-given CTs, as in (17A2), from merely backgrounded constituents, as in (17A1), Russian attaches a morphological marker *TO* to discourse-given CTs (Titov 2013a). Conversely, discourse-new CTs cannot be confused with background, as background is always discourse-given, and hence they do not carry *TO* (see (18A)).

(17) *Russian*

Q: Kto s”el boby?  
 ‘Who ate the beans?’

A1: *Boby* s”el **Ivan**.  
 beans.ACC ate Ivan  
 ‘Ivan ate the beans.’

A2: *Boby-* to s”el **Ivan**... (a vot kto vse konfety s”el ja ne znaju).  
 beans.ACC TO ate Ivan and PRT who all candies ate I not know  
 ‘As for the beans, Ivan ate them... (but I don’t know who ate all the sweets).’

(18) *Russian*

Q: Kto s”el boby?  
 ‘Who ate the beans?’

A: (Nasčēt *bobov* ja ne znaju no...) *konfety* s”ela **Marija**.  
 about beans.GEN I not know but candies.ACC ate Marija  
 ‘I don’t know about the beans but as for candies, Maria ate them.’

Japanese – a language that also utilizes prosody and morphology for IS encoding – also makes use of distinct markers to distinguish CT from focus, on the one hand, and CT from background, on the other. Excitingly, in an inverse parallel to Russian, it uses morphology to distinguish CT from focus, and prosody to discriminate CT from background. Thus, the morphological marker *WA* is carried in Japanese by backgrounded constituents (see (19)) and CTs (see (20)) but not focused constituents (see (19) and (20)) (Kuno 1972; 1973). Hence, this morphological marker distinguishes CTs from foci in Japanese in the same way as the prosodic marker IK3 does in Russian. To distinguish discourse-given CTs from merely backgrounded constituents, Japanese uses a prosodic marker for CTs, i.e., a sharp F0-rise with post-focal pitch compression (represented in (19) and (20) with SMALL CAPS), which is also carried by focused constituents. This prosodic marker distinguishes CTs from backgrounded XPs in Japanese in the same way as the morphological marker *TO* does in Russian. Mitsuaki Shimojo (1995) argues that in a context as in (21), where the CT is unambiguously contrastive and can therefore no longer be construed as background, prosodic marking on the *WA*-NP becomes redundant and can be omitted.

(19) *Japanese*

Q: Sono inu-ga dare-o kande-simatta no?  
‘Who did the dog bite?’

A: **John**-o sono inu wa kinoo kooen-de kande-simatta.  
John.ACC that dog WA yesterday park-at bite-closed  
‘The dog bit John in the park yesterday.’

(20) *Japanese*

Q: John wa/ga kinoo-no party-de nani-o tabeta no?  
‘What did John eat at the party yesterday?’

A: (Hmm, John wa doo-ka sira-nai-kedo) **Bill** wa 8-zi-goro  
well, John WA how-whether know-not-but Bill WA 8-o’clock-around  
**name**-o tabeteita (yo).  
beans.ACC eating PRT  
‘(Well, I don’t know about John, but...) as for Bill, he was eating beans  
around 8 o’clock.’

(21) *Japanese* (Mitsuaki Shimojo 1995: 26)

A: Asita siken ga aru kedo mada hon-o zenzen yondenai.  
tomorrow exam.NOM exist but yet book.ACC at-all read.NEG  
‘(I) have an exam tomorrow, but (I) haven’t read the book at all.’

B: John wa sono hon-o yonda tte.  
John WA the book.ACC read.PAST QT  
‘(I’ve heard) John has read the book.’

The data in (16)–(21) demonstrate that an interpretation that is prosodically encoded in Russian finds a morphological counterpart in Japanese and vice versa. The inverse parallel in the choice of the PF tool used for the encoding of a specific IS interpretation strongly supports the view that an interpretation that is prosodically encoded in one language can find a morphological counterpart in another. The direct interpretive correspondence between the Akan morphological markers *na* and *de(ε)* and the falling and (fall)-rising prosodic markers found in intonation languages is another phenomenon that fits well with this conclusion.

### 3 Leftmost and in situ objects

#### 3.1 Narrow focus interpretation

In the previous section, we have concluded that only *na* is a true focus marker in Akan. Therefore, our subsequent analysis of Akan focus constructions will deal exclusively with *na*-clauses. In this section, we will look at the IS interpretations that are available for a focused object in Akan focus constructions and compare it to the available IS interpretations of a focused object in SVO structures. As already mentioned in the introduction, an object that is followed by the marker *na* is interpreted as the narrow focus of the sentence in the sense that it is the only focused constituent in the sentence (Boadi 1974; Saah 1988; Boadi 1990; Saah 1994; Marfo and Bodomo 2005; Ofori 2011). We have seen in (5), repeated in (22) below, that a focus construction with a focused object can occur in a context that licenses narrow contrastive focus on the object.

- (22) Q: Wo- huu Kofi anaa?  
 you- saw Kofi QUP  
 ‘Did you see Kofi?’
- A: (Daabi) Adwoa na me- huu no (ɛnnyɛ Kofi).  
 no Adwoa FOC I- saw 3SG.ANIM not Kofi  
 ‘(No) Adwoa was who I saw (not Kofi).’

Conversely, such a construction is incompatible with a context that licenses either an IP-wide NIF, as in (23Q1), or a VP-wide NIF, as in (23Q2), (see (23A2)). An SVO sentence, as in (23A1), in contrast, is compatible with a context that licenses either an IP-wide, or a VP-wide NIF, strongly suggesting that focus projection is available only from the in-situ object position but never from the leftmost object position in Akan.

- (23) Q1: Deɛn na e-si-i?  
 what FOC 3SG.INANIM-happen-PAST  
 ‘What happened?’
- Q2: Adwoa yɛɛ deɛn?  
 Adwoa did what  
 ‘What did Adwoa do?’
- A1: Adwoa dii aduan no.  
 Adwoa ate food DEF  
 ‘Adwoa ate the food.’
- A2: #Aduan no na Adwoa dii.  
 food the FOC Adwoa ate

The question that will be addressed in this section is whether a narrowly focused object in Akan focus constructions can be interpreted merely as a NIF or whether any additional interpretation, such as contrast or exhaustivity, is obligatory for it. The IS interpretation of the leftmost object will be compared to that of an in-situ object. The hypothesis that the analysis in this section relies on is that a leftmost focused object in a focus construction obligatorily selects from a discourse-salient set of alternatives (see (24)). An in-situ focused object in an SVO structure, conversely, is underspecified as to the set it selects from. Selection out of a discourse-salient set of alternatives will be argued to be achieved via an activation of alternative members in the discourse, which can be accomplished using various IS strategies.

- (24) Only objects that quantify over a discourse-salient set of alternatives are allowed to occur in the leftmost position of a *na*-sentence.

In my analysis of IS encoding I will be adopting the interface-based approach that assumes mapping of representations created in grammar onto information-structural templates that operate at the postgrammatical level of discourse (Reinhart 1995; 2006; Neeleman and van de Koot 2008; Titov 2012a; b; 2013a; b; 2017a; b). Since this approach does not take IS features to be encoded in syntax, it does not presuppose that a specific syntactic position is directly linked to a specific IS interpretation. Instead, grammar is assumed to generate all and only grammatical representations that map transparently onto some IS templates but not others. Representations generated by grammar are either syntactically unmarked, as is the case with the SVO structure, or syntactically marked, as is the case with the focus construction. The mapping of syntactic representations onto IS templates is regulated by the interface economy. A consequence of that is that a marked representation is chosen by the interface system only to capture an interpretive effect that the unmarked structure fails to express (Reinhart 1995; 2006). The present section aims to establish what IS interpretations a focus construction with a focused object and an SVO construction with a focused object can map onto and what interpretive effect a focus construction achieves that the SVO structure fails to express.

### 3.2 *Discourse-salient set of alternatives*

#### 3.2.1 Question-answer correspondence

Previously, we have observed that a focused object in a *na*-construction can be interpreted as contrastive. That is, it can occur in a context where it is contrasted with another member of its set (see (22)). The next question to be addressed is whether contrastive interpretation is obligatory for focused objects in *na*-constructions. Unlike the SVO structure in (25A1), the focus construction with an *ex-situ* focused object in (25A2) is not a good answer to an *in-situ wh*-question in (25Q). This suggests that the interpretation of a non-contrastive NIF is available for *in-situ* objects but not *ex-situ*.

- (25) Saah (1994: 136–137)  
 Q: Wo- huu hena?  
     you- saw who  
     ‘Who did you see?’  
 A1: Me- huu Adwoa.  
     I- saw Adwoa  
 A2: #Adwoa na me huu no.  
     Adwoa FOC I saw her

However, this is only true of a context containing an *in-situ wh*-question, as (25Q) where the *wh*-object remains in its thematic position. As soon as the context contains an *ex-situ wh*-question, as in (26Q), a focus construction with a focused object becomes possible as a reply to such a *wh*-question (see (26A1)).

- (26) Saah (1994: 136–137)  
 Q: Hena na wo- huu no?  
     who FOC you- saw 3SG.ANIM  
     ‘Who was it that you saw?’  
 A1: Adwoa na me- huu no.  
     Adwoa FOC I- saw 3SG.ANIM  
     ‘Adwoa was who I saw.’  
 A2: Me- huu Adwoa.  
     I- saw Adwoa  
     ‘I saw Adwoa.’

The data in (25) and (26) strongly suggest that the *wh*-questions in these examples have distinct interpretive properties, as they place distinct restrictions on the reply.<sup>10</sup> That is, an assumption that the *wh*-questions in (25) and (26) are interpretively identical fails to explain why it is possible to have a focus construction as an answer to one but not the other. This occurrence cannot be captured by postulating a syntactic parallelism requirement holding between the syntactic form of the question and that of the reply, given that an in-situ focus can occur in the context of a *na*-question (see (26A2)). The observed contrast must therefore be interpretive.

The position that the present paper takes is that the *wh*-questions in (25Q) and (26Q) differ with respect to the nature of the set that the *wh*-phrases quantify over. More specifically, the in-situ and the leftmost *wh*-objects have distinct values of the [ $\pm$ D-linked] feature (Pesetsky 1987), resulting in a pragmatic rather than a semantic difference between (25Q) and (26Q). To be more precise, the interpretive restriction placed on the leftmost *wh*-object in a *na*-construction is that it is obligatorily [+D-linked] in that it consistently quantifies over a discourse-salient set of alternatives. An in-situ *wh*-object, in contrast, may open a new unlinked set.<sup>11</sup>

The [+D-linked] nature of a *wh*-phrase in the leftmost position can be acquired via various strategies. For instance, without any additional contextual assumptions, the *wh*-phrase in (26Q) is interpreted as *emphatic* (Saah 1994) in the sense that (26Q) does not merely ask to provide a value for *x* in ‘I saw *x*’ but additionally conveys that the candidate that can fulfil this proposition is either the most or the least likely candidate of its set to fulfil this proposition (see Titov 2013a for a discussion of emphatic construal). Naturally, for such an interpretation to be possible, alternative members of the set must be salient in the discourse, as no candidate can be interpreted as the most or the least likely member of a set that lacks alternative members. When (26Q) is interpreted as asking to select a candidate that is the most likely member of its set to fulfil the relevant proposition, there is a feeling that the speaker is already aware of potential candidates that can fulfil this proposition and *insists* on the hearer telling *which exactly* candidate of this set can do so (Saah 1994).<sup>12</sup> Conversely, when (26Q) asks to select a candidate that is the least likely member of its set to fulfil the relevant proposition, the speaker may believe that such a

<sup>10</sup> There is no agreement in the linguistic literature on Akan on whether the *wh*-questions in (25) and (26) are interpretively distinct, with some linguists arguing in favour of such a conclusion (Saah 1988; 1994; Ofori 2011) and others against it (Boadi 1974; Marfo and Bodomo 2005).

<sup>11</sup> The interpretive difference between the two types of *wh*-questions cannot be reduced to the presence or absence of an existence presupposition because both can be answered with ‘nobody’, as in (i) below (see van der Wal 2016 for diagnostics for an existence presupposition).

(i) a. Q: Hena na wo- huu no?  
 who FOC you- saw 3SG.ANIM  
 ‘Who was it that you saw?’

A: M’- a- n- hu obiara.  
 I- PAST- NEG- see everybody  
 ‘I saw nobody.’

b. Q: Wo- huu hena?  
 you- saw who  
 ‘Who did you see?’

A: M’- a- n- hu obiara.  
 I- PAST- NEG- see everybody  
 ‘I saw nobody.’

<sup>12</sup> The difference in the nature of the set that ex-situ and in-situ Akan objects quantify over appears to be similar to what Somaiya and Bisang (2004) capture by the concept of preconstruction, whereby an ex-situ object quantifies over a preconstructed set of potential candidates, whereas an in-situ object quantifies over a non-preconstructed open set.

selection is implausible or even impossible (Ofori 2011). Whether (26Q) asks to select the most likely or the least likely candidate is typically contextually determined.

Quantification over a discourse-salient set does not have to be linked to emphasis. Some *wh*-phrases inherently involve such quantification (see (27)). A *wh*-question of the type ‘which *x*’ unambiguously selects out a discourse-salient set of alternatives that contains *x*. As expected, such *wh*-phrases strongly favour occurring in the leftmost position even without any additional contextual licensing (see (27)).

- (27) a. Osuani      bɛn    na    wo-    huu    no?  
 student:one which FOC you- saw 3SG  
 ‘Which student was it that you saw?’
- b. #Wohuu    osuani      bɛn?  
 you-saw student:one which

A question containing the *wh*-phrase ‘which student’, as in (27), can be used only if a set of students is salient in the discourse. In other words, the speaker asking this question presupposes that the hearer saw a member of a closed set of students and asks to specify which exactly member that was. This explains why an in-situ *wh*-question is not an optimal candidate for capturing this interpretation (see (27b)). That is, although (27b) is not ungrammatical, there is a strong preference for using (27a) with this *wh*-phrase. Plausibly this is because an in-situ object is underspecified as to the set it quantifies over, whereas a leftmost object obligatorily quantifies over a discourse-salient set of alternatives (see (24)). If so, a *wh*-object that inherently quantifies over such set is expected to be pragmatically more compatible with the leftmost position. The data in (27) can be seen as confirming this expectation.

If we are correct in assuming that (26Q) asks to select out of a discourse-salient set of alternatives, it is unsurprising that the focus construction in (26A1) can surface as an answer to it. After all, the ex-situ object in (26A1) must be interpreted as selecting out of a discourse-salient set of alternatives (see (24)).<sup>13</sup> Conversely, having a leftmost focus in the reply to the in-situ question in (25Q) is infelicitous (see (25A2)) because such a question does not presuppose existence of discourse-salient alternatives to the focus, i.e., such an interpretation is not inherent to it. If so, the focus in the answer to (25Q) is not construed as selecting out of a discourse-salient set, and a focus construction is not contextually licensed.

On the adopted interface-based view of IS encoding, the patterns in (25) and (26) demonstrate that the unmarked and the marked syntactic representations can both be mapped onto a discourse template licensed by an ex-situ question but only the unmarked representation is compatible with the discourse template licensed by an in-situ question. Given that an ex-situ question unambiguously quantifies over a discourse-salient set of alternatives, the template created by this question for further discourse requires that the focused object in the syntactic representation mapped onto it ends up being interpreted as selecting out of a discourse-salient set of alternatives. While an ex-situ answer is an ideal candidate to be mapped onto this template, given that an ex-situ focused object unambiguously selects out of such a set, an answer with an in-situ focused object is also a possible candidate for mapping onto this template because an in-situ focused object is underspecified with respect to the set it selects from. Hence, nothing stops it from selecting out of an already

<sup>13</sup> As I argue in Titov (2013a), the focus in (26A1) is not contrastive despite selecting out of a discourse-salient set of alternatives. This is because for contrastive interpretation, the discourse-salient set of alternatives must be activated by the sentence itself. In (26), however, this set is activated by the contextual question in (26Q) and therefore prior to (26A1) being uttered.

introduced discourse-salient set. Conversely, the discourse template licensed by an in-situ question does not specify the nature of the set that the focused object should select out of. Mapping an unmarked syntactic representation with an in-situ focused object onto this template is allowed because this is the simplest syntactic representation available, and more, the in-situ focused object can select out of any set. Conversely, mapping a syntactically marked representation onto a template that does not itself license selection out of a discourse-salient set is prohibited by (24).<sup>14</sup>

Above we have seen that an SVO structure with a focused object is readily compatible with either an in-situ *wh*-question, as in (25Q), or a *na*-question, as in (26Q), (see (25A1) and (26A2)), strongly suggesting that an in-situ focused object is underspecified as to the set it selects from – open or discourse-salient. If so, we expect that an in-situ focused object is also underspecified as regards contrast. This prediction is borne out (see (28)). In (25A1), the in-situ object occurs in a context that licenses its interpretation of a non-contrastive NIF, whereas in (28A), the in-situ object occurs in a context that licenses its contrastive construal (see (28Q) that contains an alternative to the focused object).<sup>15</sup>

- (28) Q: Wo- huu Kofi anaa?  
 you- saw Kofi QUP  
 ‘Did you see Kofi?’
- A: Daabi, me- huu Ama, ennye Kofi  
 no I- saw Ama not Kofi  
 ‘No, I saw Ama, not Kofi.’

The above data support our hypothesis that a leftmost object in Akan focus constructions consistently selects out a discourse-salient set of alternatives (see (24)), whereas an in-situ object is underspecified as to what set it selects from. So far we have looked at four types of quantification over a discourse-salient set of alternatives: (i) contrastive interpretation, which involves selection out of a discourse-salient set of alternatives, licensed by the presence of an alternative member of the set in the context; (ii) emphatic interpretation of *wh*-categories, which involves quantification over a discourse-salient set of alternatives, out of which either the most or the least likely candidate is asked to be selected; (iii) opening of a discourse-salient set of alternatives by a ‘which *x*’ *wh*-phrase, which inherently refers to such a set; and (iv) selection out of a discourse-salient set of alternatives introduced by a *wh*-question that obligatorily quantifies over such a set. Furthermore, selection out of a discourse-salient set of alternatives is also available for *exhaustive* focus.

### 3.2.2 Exhaustivity

Recall that exhaustive reading results in an interpretation according to which propositions containing an alternative to the focus receive an opposite truth-value. This presupposes that the interpretation of an exhaustive focus requires an activation of a set of alternatives in the discourse. If so, it should be possible for a focused object with an exhaustive interpretation to occur in a focus construction. In line with that, Saah (1994) observes that the focus in (29) is interpreted as exhaustive and paraphrases the sentence as “The woman and only that woman was the one I saw”.

<sup>14</sup> It is unclear whether the underspecified template created by an in-situ question can be contextually enriched to include the interpretation of alternative members. It appears unlikely that an in-situ question would be used in a context that has salient alternatives, given that this question asks to select out of an unspecified set. The question of whether it is possible to create contextual accommodation that facilitates a presupposition change, which would license a distinct discourse template, must be left for future research.

<sup>15</sup> An object pronoun in the thematic complement to V position can be interpreted as contrastive as long as it has a strong form (Arkoh 2007), strongly suggesting that an *in-situ* object can be contrastive.

- (29) Saah (1994: 133)  
 ɔbaa no na me huu no.  
 woman the FOC I saw her  
 ‘The woman is who I saw.’

In accordance with Saah’s observation, the sentence in (30) is possible only if the continuation ‘and also the man’ is interpreted as an afterthought, which is compatible with a presupposition change.

- (30) ɔbaa no na me-huu no (ʔɛna obarima no nso).  
 woman the FOC I-saw 3SG and man the also  
 ‘The woman is who I saw (ʔand also the man).’

The sentence in (31), however, presents a more peculiar case. Here, a concessive marker *mmom* forms a concessive connective with the conjunction *na* (Amfo 2001). This concessive connective is used to signal that the first clause denotes a circumstance which might be expected to preclude the action of the second clause, but does not (see the use of *although* in the translation). That is, the interpretation of (31) is such that the fact that I saw the woman might suggest that I also saw others, but this is not the case. However, such an interpretation is only achievable if the focused object is not exhaustive. If this object were exhaustive, the first clause would presuppose that I did not see anyone else but the women, and the use of the concessive connective would be semantically infelicitous.

- (31) ɔbaa no na me-huu no na mmom m-a-n-hu obi fororo biara.  
 woman the FOC I-saw 3SG but conversely I-not-saw person new any  
 ‘Although the woman is who I saw, I didn’t see anyone else (any new person).’

Hence, the data in (30) and (31) demonstrate that in the absence of a contextually licensed contrastive interpretation, exhaustive interpretation is strongly favoured for focused objects in *na*-constructions (see (30)). However, the exhaustive reading is not part of the truth-conditional interpretation of the focus construction and is therefore not obligatory (see (31)). What appears to be obligatory for focus constructions with focused objects is the interpretation of the object as involving quantification over a discourse-salient set of alternatives (see (24)). Whenever a contrastive construal is available for this object, as in (31) where the presence of an alternative statement activates contrastive construal, any other type of quantification becomes optional. Conversely, in the absence of a contextual licensing of contrastive interpretation, a leftmost focused object obtains exhaustive interpretation, as this construal automatically activates a discourse-salient set of alternatives. The data in (32) further support the above conclusion.

- (32) Q: Kofi twa-a nsɔhwɛ no anaa?  
 Kofi passed exam the QUP  
 ‘Did Kofi pass the exam?’  
 A: Me-n-ni ho kwan sɛ me-ka Kofi results kyere wo na mmom  
 I-not-have about allow that I-tell Kofi results show you but conversely  
 Ama na ɔ-a-n-twa nsɔhwɛ no.  
 Ama FOC 3SG-not-pass exam the  
 ‘Although I am not allowed to tell you Kofi’s result, Ama is who did not pass the exam.’

In (32), the concessive connective results in the interpretation according to which selection of *Ama* out of the discourse-salient set of alternatives for the variable in ‘*x* did not pass the exam’ results in the impossibility of selecting another member of the set (i.e., *Kofi*) for the same variable. Although this might look like *Ama* has exhaustive reading (i.e., *Ama* is the only member of the set that can be used for *x*), the interpretation of the sentence is also readily compatible with merely contrastive reading (i.e., while *Ama* can be selected for *x*, another contextually salient member of the set, namely *Kofi*, cannot).<sup>16</sup>

If we are on the right track assuming that exhaustive reading is not an inherent property of leftmost focus, we expect Akan focus constructions to fail any tests for inherent exhaustivity. One such test concerns the additive particle ‘also’ and the scalar focus-sensitive operator ‘even’ (see van der Wal 2016). The idea behind this test is that the additive particle ‘also’ indicates that the background is fulfilled not only by the focus but also by other members of the set of alternatives, rendering the referent it modifies non-exhaustive. Similarly, the scalar operator ‘even’ also presupposes that the background is fulfilled by more members of the set of contextually relevant alternatives and additionally signals that the focus is the least likely candidate in this set to fulfil the background and turn it into a true proposition. Hence, if leftmost foci in Akan are compatible with ‘even’ and/or ‘also’, we must conclude that exhaustivity is not an inherent property of such foci. This is indeed the case (see (33) and (34)).<sup>17</sup>

(33)   ɔbaa   no nso na   me huu no.  
           woman the also FOC I   saw her  
           ‘It was also the woman who I saw.’

(34)   ɔbaa   no mpo na   me huu no.  
           woman the even FOC I   saw her  
           ‘It was even the woman who I saw.’

The above observations suggest that exhaustive interpretation is favored but not obligatory for focus constructions. In particular, when contrastive interpretation is available, the exhaustivity requirement can be dropped. However, when no members of the set of alternatives are overtly present in the discourse, this set can be activated via exhaustive interpretation, which presupposes the existence of alternatives for the exhaustive focus, as in (35) where the fact that *Ama* did not pass the exam presupposes that all other members of the set of alternatives did pass the exam. That is, all of the alternative members are construed as incapable of fulfilling the same background as the exhaustive focus (see (36)).

(35)   Ama na   ɔ-a-n-twa    nsɔhwɛ no.  
           Ama FOC 3SG-not-pass exam   the  
           ‘Ama was who did not pass the exam.’

(36)   (Adapted from Titov 2013a: 36)  
           *Semantics of sentences hosting an exhaustive focus*  
           (a)  $\langle \lambda x[x \text{ did not pass the exam}], \text{Ama}, \{\text{Ama}, \text{Adwoa}, \text{Kofi}, \text{Efua}, \dots\} \rangle$   
           (b)  $\forall x[x \in \{\text{Ama}, \text{Adwoa}, \text{Kofi}, \text{Efua}, \dots\} \ \& \ x \neq \text{Ama} \ \neg [x \text{ did not pass the exam}]]$ .

<sup>16</sup> A similar test has been used in Hartmann and Zimmermann (2007c) for Hausa.

<sup>17</sup> The fact that the focus-sensitive operators *nso* ‘only’ and *mpo* ‘even’ operate on the leftmost focused constituent in (36) and (37) is uncontroversial, given that the relevant operators can only operate on focused constituents and we have seen that no other constituent but the leftmost can be in focus in Akan focus constructions.

The formula in (36) states that there exists a member of the set of individuals (here it is *Ama*) and that for all members of this set except *Ama* it is not true that they did not pass the exam. In other words, exhaustive interpretation also involves selection out of a discourse-salient set of alternatives, as alternative members must be active in the discourse at the time the relevant sentence is produced. For the merely contrastive interpretation, at least one discourse-salient alternative member is considered and rejected as a candidate for the variable that the focused item is chosen for. For the exhaustive interpretation, all the alternative members of the set that the focus belongs to are construed as unable to be selected for this variable (see also van der Wal 2016, for a discussion of exhaustivity and exclusivity).

The above conclusions are further supported by a test involving universal quantifiers, which are incompatible with exhaustivity. This is because the interpretation of universal quantifiers implies that all referents are included and therefore there is no exclusion of alternatives in the same set (van der Wal 2016). As expected a sentence containing a universal quantifier sounds odd in a context that does not license contrastive construal, as in (37a), it is, however, well-formed whenever contrast is contextually specified, as in (37b). This observation is straightforwardly compatible with our conclusion that in the absence of the contextual licence of contrast, leftmost focused objects favour exhaustive construal.

- (37) a. ?ɔ̃barima biara na Ama dɔ no.  
           boy       every FOC Ama love 3SG  
           ‘Every boy is who Ama loves.’
- b. ɔ̃barima biara na Ama dɔ no, ɛnnyɛ ɔbaa biara.  
           boy       every FOC Ama love 3SG not woman every  
           ‘Every boy is who Ama loves (not every woman).’

In this section, we have observed that a leftmost focused object must involve quantification over a discourse-salient set of alternatives. This can be any type of quantification. A consequence of that is that a leftmost focused object is either contrastive, or/and exhaustive, or it selects out a discourse-salient set opened by a preceding *na*-question. It is, however, impossible for a leftmost focused object to select out a set introduced by an SVO *wh*-question because such a set is underspecified for the [ $\pm$ D-linked] feature. Hence, an object that selects out of such a set cannot be unambiguously interpreted as selecting out of a discourse-salient rather than an open set of alternatives, and the marked focus construction is not contextually licensed. All of these observations support our hypothesis in (24).

We have also observed that an in-situ focused object in an SVO structure is generally underspecified as to the set it quantifies over. An in-situ *wh*-object is underspecified for the [ $\pm$ D-linked] feature. An in-situ focused object can select out of either a discourse-salient or an open set, and occur in a context that licenses either a CF or a non-contrastive NIF. In other words, contrast is not part of the inherent meaning of an SVO sentence in Akan but it can be pragmatically added to it (see van der Wal 2016 for a discussion of encoded and implied interpretations).

### 3.2.3 Parallel with intonation languages and the interpretive licence for markedness

The aforementioned availability of contrastive reading for in-situ focused objects patterns well with focus realisation in intonation languages, such as English or Russian. In English and Russian, as well as in many other languages, contrast can be syntactically realised via

A'-scrambling (Neeleman 1994; Neeleman and van de Koot 2008; Neeleman and Titov 2009; Titov 2012a; b; 2013a) (see (38) and (39)).

(38) **John** I saw (not Mary).

(39) *Russian*  
**Ivana** ja videl (a ne Borisa).  
 Ivan.ACC I saw (and not Boris)  
 'Ivan I saw (not Boris).'

The sentences in (38) and (39) cannot be construed as having NIF. That is, just like the leftmost focused objects in Akan, the A'-scrambled focused objects in English and Russian must involve quantification over a discourse-salient set of alternatives. Thus, the most natural construal of the objects in (38) and (39) is contrastive.<sup>18</sup> Conversely, in-situ objects in English and Russian do not have to be linked to this interpretation but they nevertheless can be (see (40) and (41)).

(40) I saw **John** (not Mary).

(41) *Russian*  
 Ja videl **Ivana** (a ne Borisa).  
 I saw Ivan.ACC (and not Boris)  
 'I saw Ivan (not Boris).'

In other words, intonation languages demonstrate a parallel pattern of encoding of contrast as Akan: a marked syntactic structure is used solely for the interpretation that involves quantification over a discourse-salient set of alternatives, whereas the unmarked SVO structure is merely compatible with such an interpretation. One way of capturing this observation is to say that the in-situ strategy is syntactically underspecified for contrast on the focused object (van der Wal 2016).<sup>19,20</sup>

In Titov (2012a and 2017b), I account for the optional status of the encoding of contrastive reading via a marked syntactic structure by proposing that the licence for syntactic markedness is interpretive disambiguation. We have seen that the SVO structure is ambiguous not only with respect to the presence of contrastive reading but also as regards the size of the focused XP, allowing for DP<sub>object</sub>-, VP- and IP-wide focus. Conversely, a *na*-construction with a focused object (or a structure with an A'-scrambled focused object) can only have the narrow focus on the object construal and this focus must involve quantification over a discourse-salient set of alternatives. Hence, the marked constructions are used to restrict the set of available readings and this way disambiguate the IS construal of the sentence. However, in an unambiguous context, an SVO structure can be used to capture exactly the same interpretation.

<sup>18</sup> A'-scrambled foci can also be interpreted as emphatic rather than contrastive. In Titov (2013a), I analyse emphatic focus as a subcase of contrastive focus that involves selection of the most or the least likely candidate out of a pragmatic set of alternatives.

<sup>19</sup> In (41), the focused object carries IK2 – the intonational contour assigned to CF (not IK1 assigned to NIF). Hence, in Russian this strategy is syntactically but not prosodically underspecified for contrast.

<sup>20</sup> A similar conclusion is made in Skopeteas and Fanselow (2010). The authors demonstrate on the basis of American English and Georgian data pattern obtained in an elicitation task that both the canonical and the non-canonical options of expressing focus allow for the inference of contrastive or exhaustive identification. Similarly, Hartmann and Zimmermann (2007a) demonstrate that in Hausa non-subject focus marking is not obligatory, with the marked focus being associated with an additional interpretation, such as emphasis. That is, focus encoding in Hausa patterns with that in Akan.

#### 4 Akan Subjects

In the previous section, we looked at the interpretation of Akan focused objects. This section is concerned with Akan focused subjects. As mentioned in the introduction, Akan exhibits a subject/non-subject asymmetry in the distribution of focused arguments. We have seen that a focused object can remain in situ, whereas Akan narrowly focused subjects can occur only in a *na*-construction. A recent trend in the linguistic literature on Akan is to argue that non-exhaustive subjects do not obligatorily occur in focus constructions (Duah 2015; Pfeil et al. 2015; Grubic et al. to appear). However, it is not entirely clear to what extent this is the case. For instance, Pfeil et al. (2015) argue on the basis of the data in (42Q), (42A1) and (42A2) that Akan non-exhaustively focused subjects cannot occur in focus constructions.

- (42) Pfeil et al. (2015: 93)  
 Q: Kofi arrived. Who else arrived?  
 A1: Ama nso baa.  
     Ama also come.PAST  
     ‘Ama also came.’  
 A2: #Ama na ɔ- baa.  
     Ama FOC 3SG.ANIM- come.PAST  
     ‘Ama came.’  
 A3: Ama na nso ɔ- baa.  
     Ama FOC also 3SG.ANIM- come.PAST  
     ‘AMA also came.’

Since the context in (42Q) (which is given by the authors only in English) presupposes that *Ama* is not the only member of the set of individuals that provides a value for *x* in ‘*x* arrived’ (i.e., *Kofi* does that too), the subject in the reply to this question must be non-exhaustive. The fact that (42A2) is pragmatically infelicitous is taken by Pfeil et al. (2015) to suggest that this is due to the non-exhaustive construal of the subject, which is incompatible with focus constructions. However, if this were true, the felicitous reply in (42A3), would also be ruled out in this context, as it contains a non-exhaustively focused subject that occurs in a focus construction. The only difference between the infelicitous (42A2) and the felicitous (42A3) is that the latter contains the additive discourse particle *nso* ‘also/too’, which makes the sentence compatible with the context by signalling that a proposition (i.e., ‘Ama arrived’) is added to the discourse that also applies to at least one alternative (i.e., *Kofi*). Plausibly, the additive discourse particle cannot be omitted in an answer to (42Q) because it expresses VF, which must be realised in an answer to (42Q) because this question asks for a truth-value of the proposition ‘*x* arrive’ as applied to an alternative to *Kofi*. If so, the data in (42) do not demonstrate that non-exhaustive subjects cannot occur in focus constructions. At best, they show that such occurrence is optional. However, (42A1) may be available due to the fact that the sentence contains a VF. To be precise, the data in (42) demonstrate that an answer to (42Q), can either realise only the VF, as in (42A1), or the VF and the subject focus, as in (42A3), but not only the subject focus, as in (42A2). In other words, all that (42) shows is that VF realisation cannot be omitted in the context of (42Q). Conversely, when the subject is the only focus of the sentence the subject/non-subject asymmetry holds. Moreover, this asymmetry extends to *wh*-questions, where it is absolutely uncontroversial (see (43) and (44)). Unlike a *wh*-object, as in (43b), a *wh*-subject cannot occur in an SVO sentence, as in (44b). Instead it always occurs in a focus construction, as in (44a).

- (43) a. Hena na wo- huu no?  
 who FOC you- saw 3SG.ANIM  
 ‘Who was it that you saw?’  
 b. Wo- huu hena?  
 You- saw who  
 ‘Who did you see?’
- (44) Saah (1994: 138)  
 a. Hena na ɔ- dii aduan no?  
 who FOC 3SG.ANIM- ate food DEF  
 ‘Who ate the food?’  
 b. \*Hena dii aduan no?  
 who ate food DEF

A further difference between Akan focused objects and subjects is that a subject in a *na*-construction does not have to involve quantification over a discourse-salient set of alternatives. That is, all of our reasoning about the difference in the interpretation of leftmost and in-situ objects does not apply to Akan narrowly focused subjects, with any of the discussed interpretations available for (45A), including the interpretation of a non-contrastive, non-exhaustive NIF. Similarly, *wh*-subjects, as in (45Q), do not have to be [+D-linked] in Akan. This observation is expected, given that there is no simpler SVO alternative to these structures that also involves *wh*-subjects or expresses narrow focus on the subject. Recall that interface economy chooses a simpler syntactic representation over a costly one if and only if the former achieves an interpretive effect that the latter fails to express. (In the case of focused objects this effect had to do with interpretive disambiguation.) However, in the absence of a simpler alternative for the given truth-conditional and IS interpretation, interface economy has no choice but to consistently select the marked representation, without any additional interpretive effect being achieved. In other words, if a *na*-construction with a focused subject could only capture a contrastive interpretation, there would be no structure to capture the interpretation of a non-contrastive narrow NIF on the subject. It is therefore unsurprising that the only available structure for narrow focus on the subject is interpretively ambiguous and is used in both types of context – contrastive and non-contrastive.

- (45) Q: Hena na ɔ- dii aduan no?  
 who FOC 3SG.ANIM- ate food DEF  
 ‘Who ate the food?’  
 A: Kodwo na ɔ- dii aduan no.  
 Kodwo FOC 3SG.ANIM- ate food DEF  
 ‘Kodwo ate the food.’

A logical question that follows from the above observation is why the unmarked SVO representation cannot capture the interpretation of narrow focus on the subject and the marked *na*-construction has to be used instead. The hypothesis adopted here is that narrow focus on a subject must be encoded via a marked strategy because subjects are not in the default focus set illustrated in (46) (Reinhart 1995; 2006).

- (46) Reinhart (1995: 31)  
 Focus set: {IP, VP, O}

We have seen that for Akan *wh*-objects and narrowly focused objects the in-situ complement to V position is unmarked. It is from this position that focus projection takes place,

allowing for VP- and IP-wide focus. And it is in this position that a focused object is interpretively ambiguous as regards the set it operates on. A focused object that surfaces in a *na*-construction, conversely, is interpretively restricted in that it MUST operate on a discourse-salient set of alternatives, and no focus projection is available from the leftmost position. Similarly, in intonation languages, the unmarked position of a focused object is also the thematic complement to V position. Depending on whether the language is head-initial or head-final in the verbal domain, the object occurs either to the left or to the right of the verb. In this position the object can be interpreted as a narrow NIF or a narrow CF. And it is from this position that focus projection takes place resulting in VP- or IP-wide focus (Reinhart 1995; 2006). An object that A'-scrambles from this position is interpretively restricted in that it must quantify over a discourse-salient set of alternatives (Neeleman and van de Koot 2008; Neeleman and Titov 2009; Titov 2012a; b; 2013a), and, unsurprisingly, no focus projection can take place from an A'-position. In other words, the behaviour of focused objects in intonation languages is similar to that of focused objects in Akan.

Encoding of the interpretation of narrow focus on the subject, conversely, cross-linguistically requires a marked operation because narrowly focused subjects are not in the default focus set, i.e., a subject that belongs to the default focus set can only occur in IP-wide focus sentences (Reinhart 2006), as in (47A1) where the entire IP including the subject is in focus.

- (47) Q: Deɛn na e-sii?  
 what FOC 3SG.INANIM-happen.PAST  
 'What happened?'  
 A1: Kodwo dii aduan no.  
 Kodwo ate food 3SG  
 'Kodwo ate the food.'  
 A2: #Kodwo na ɔ- dii aduan no.  
 Kodwo FOC 3SG ate food DEF

As expected, the IP-wide focus interpretation is captured by the unmarked SVO structure in (47A1) that we have already seen to allow for focus projection. Conversely, a focus construction where the subject is followed by the focus marker *na*, as in (47A2), is incapable of capturing the interpretation of a IP-wide focus. Nor is it compatible with the interpretation of a VP-wide focus (see (48A2)), strongly suggesting that no focus projection is possible for it.

- (48) Q: Kodwo yɛɛ deɛn?  
 Kodwo did what  
 'What did Kodwo do?'  
 A1: Kodwo dii aduan no.  
 Kodwo ate food DEF  
 'Kodwo ate the food.'  
 A2: #Kodwo na ɔ- dii aduan no.  
 Kodwo FOC 3SG- ate food DEF

In fact, it appears that no other IS interpretation but the one of narrow focus on the subject, as in (49A1), is available for a focus construction where the subject is followed by

the focus marker *na*. As soon as the focus is wider than the subject DP, this interpretation has to be captured by the unmarked SVO structure.

- (49) Saah (1994: 138)
- Q: Hena na ɔ-                   dii aduan no?  
     who FOC 3SG.ANIM- ate food DEF  
     ‘Who ate the food?’
- A1: Kodwo na ɔ-                   dii aduan no.  
     Kodwo FOC 3SG.ANIM- ate food DEF  
     ‘Kodwo ate the food.’
- A2: #Kodwo dii aduan no.  
     Kodwo ate food DEF

In other words, narrow focus on the subject interpretation can be captured only by the focus construction and it is the only interpretation that is available for this construction. Hence, we can argue that the unmarked SVO representation is chosen by the interface system for the encoding of any focus that belongs to the default focus set but it fails to encode a focus that does not belong to this set, in which case the marked focus construction is chosen over the simpler SVO structure by the interface economy, as this is the only structure that can express this interpretation.<sup>21</sup>

Crucially, the syntactically and prosodically unmarked SVO construction fails to capture the narrow focus on the subject interpretation cross-linguistically (see also Ameka 2010 for the claim that subject focus constructions in Kwa languages involve an obligatory marking in the clause). However, languages differ in the choice of the linguistic tool (prosodic, syntactic or morphosyntactic) used to achieve a marked representation. In English, a marked operation of stress shift takes place at PF in order to mark a subject as the narrow focus of the sentence (see (50)).<sup>22</sup> In Russian, a marked operation of A-scrambling takes place in syntax in order for the subject to be interpreted as the narrow focus of the sentence (see (51)) (Titov 2012a; 2013b).<sup>23</sup> Both operations occur so as to place the subject in the position of stress.

- (50) Q: Who loves Mary?  
       A: **John** loves Mary.

<sup>21</sup> It is not entirely clear whether Akan encodes focus on non-constituents in the same way as on constituents. However, given that verbs are also not in the default focus set, the fact that they also occur in a focus construction when narrowly focused (see (i)) can be seen as supporting our analysis.

(i) Q: Tan na Kofi tan Adwoa anaa?  
     hate FOC Kofi hate Adwoa QuP  
     ‘Does Kofi hate Adwoa?’

A: Daabi, dɔ na Kofi dɔ Adwoa.  
     no love FOC Kofi love Adwoa  
     ‘No, Kofi loves Adwoa.’

<sup>22</sup> The prosodically marked English sentence with a stress-shift to the subject in (50A) is ambiguous with respect to contrast in the same way as the Akan *na*-construction with a focused subject.

<sup>23</sup> Other languages that employ a non-canonical syntactic structure for the encoding of narrow focus on the subject include French (Lambrecht 2001), Spanish (Büring and Gutiérrez-Bravo 2001), Hausa (Hartmann and Zimmermann 2007), West Chadic languages (Zimmermann 2008), Kwa and Gur languages (Fiedler and Schwarz 2005), Northern Sotho (Zerbian 2007) and many more.

- (51) *Russian*  
 Q: Kto ljubit Mariju?  
     who loves Mary.ACC  
 A: Mariju ljubit Ivan.  
     Mary.ACC loves John  
     ‘John loves Mary.’

By analogy, marking of narrow focus on Akan subjects also requires a marked operation. It follows, then, that Akan employs the morphosyntactically marked focus construction for the encoding of narrow focus on the subject in the same way as English uses a prosodically marked construction with a stress shift and Russian uses a syntactically marked A-scrambled OVS construction. The only difference is that English and Russian aim to place the subject in the position of stress in order for it to be interpreted as the narrow focus of the sentence, whereas Akan places the subject in the position immediately preceding the focus marker *na*, as this position is reserved for *narrowly* focused constituents.

The above analysis relies on the idea that there is a certain parallelism in the encoding of IS interpretations between syllable-timed tone languages, such as Akan, and intonation languages, such as English and Russian. We have seen that both types of languages optionally encode contrastive interpretation on the object via a marked representation. We have also seen that both types of languages employ a marked operation for the encoding of narrow focus on the subject, as subjects are not in the default focus set. The resulting representation can be marked either prosodically (e.g. stress shift in English), or syntactically (e.g. A-scrambling in Russian) or morpho-syntactically (Akan focus construction). The fact that Akan has a position in which only narrow focus surfaces, namely the position immediately preceding the focus marker *na*, allows it to make use of exactly the same surface position for the encoding of narrow focus on the subject and narrow contrastive focus on the object.<sup>24</sup> Languages that do not have such a designated narrow focus position, on the other hand, have to resort to distinct operations (e.g. A-scrambling vs. A'-scrambling in Russian, and stress-shift vs. A'-scrambling in English). It is worth mentioning, however, that in intonation languages, a contrastively focused object either scrambles to an A'-position or stays in its thematic A-position, whereas a narrowly focused subject typically remains in an A-position irrespective of its interpretation as regards contrast. This means that an A'-position is available only for foci that quantify over a discourse-salient set of alternatives, whereas an A-position is compatible with both contrastive and non-contrastive readings. If non-contrastive construal is cross-linguistically available exclusively for arguments in A-positions, we expect the position that precedes *na* to be an A-position because this position is used for both contrastive and non-contrastive foci. The next section addresses the syntactic properties of the Akan focus construction and provides support for the A-nature of the focus position.

<sup>24</sup> We have seen that the only IS interpretation that the Akan focus construction inherently represents for all types of arguments is narrow focus on the constituent followed by *na*. In the case of objects, it additionally encodes quantification over a *discourse-salient* set of alternatives. In the case of subjects, conversely, the latter interpretation is underspecified and must be contextually licensed. The type of pragmatic quantification involved is either disambiguated via morphological markers (e.g. exclusion vs. inclusion) or via context (e.g. types of exclusion – contrast vs. exhaustivity).

## 5 Syntax of the Akan focus construction

The first question that we must address in this section is whether the *na*-construction involves A'-movement<sup>25</sup> (Boadi 1974; Korsah and Murphey 2017) or base-generation (Saah 1994;<sup>26</sup> Ofori 2011) of the focused XP. This question is easily resolved using reconstruction tests as A'-movement is known to reconstruct to the position of the trace (see Vanden Wyngaerd 1989; Zwart 1993; Jacobs 1997; Haider and Rosengren 1998; Mahajan 1990; Neeleman 1994; and Neeleman and Van de Koot 2008 for a discussion of diagnostics for A- vs. A'-position). An XP that is base-generated in an A-position, conversely, has no position to reconstruct to. Hence, if focused objects in *na*-constructions undergo A'-movement across the subject, they are expected to reconstruct to their thematic position below the subject, in which case the subject must be able to bind into the A'-moved object and take scope over it.<sup>27</sup> Conversely, if focused objects in *na*-constructions are base-generated in an A-position above the subject, it should be impossible for the subject to bind into the object or take scope over it. As (52) and (53) demonstrate, Akan data support a base-generation analysis.

(52) Q: Hwan na ɔbarima biara dɔ no?  
 who FOC boy every love 3SG  
 'Who does every boy love?'

A: \*Ne<sub>i</sub> maame na [ɔbarima biara]<sub>i</sub> dɔ no.  
 his mum FOC boy every loves 3SG

(53) Q: Hwan na ɔbaa biara dɔ no?  
 who FOC girl every love 3SG  
 'Who does every girl love?'

A: ɔbarima baako na ɔbaa biara dɔ no.  
 boy one FOC girl every love 3SG  
 'One boy, every girl loves him.'

∃ > ∀; \*∀ > ∃

That is, the sentence in (52A) is impossible on the co-referential reading, suggesting that the variable embedded in the focused object cannot be bound by the subject.<sup>28</sup> Similarly,

<sup>25</sup> Since the focused constituent in the *na*-construction surfaces above a pre-negation subject (see (i)), we cannot assume that it has A'-moved to this position. This is because there is no A'-position within the same clause that is above SpecIP hosting the subject, while movement out of the CP cannot be an A'-movement operation, given that A'-movement never crosses a CP boundary.

(i) Ama na ɔ- n- dii akutu no.  
 Ama FOC 3SG- NEG ate oranges DEF  
 'Ama is who did not eat the oranges.'

<sup>26</sup> Saah (1994) argues for a base-generation account by demonstrating that there is no island-sensitivity in Akan *na*-constructions (see Saah 1994: 172).

<sup>27</sup> Reconstruction for quantifier scope is a more reliable test for syntactic reconstruction than tests based on binding, as binding does not consistently require c-command from an A'-position (see Williams 1994 and Footnote 28). Being a discourse-configurational language, Akan, as expected, has surface scope in simple SVO sentences (see (i)) (see Bobaljik and Wurmbbrand 2012 for a discussion of languages that encode inverse quantifier scope via QR and those that do so overtly via a reordering of arguments).

(i) a. ɔbaa biara dɔ ɔbarima baako.  
 girl every love boy one  
 'Every girl loves one boy.' [∃ > ∃; ?∃ > ∃]

b. ɔbarima baako dɔ ɔbaa biara.  
 boy one love girl every  
 'One boy loves every girl.' [∃ > ∃; \*∃ > ∃]

<sup>28</sup> Korsah and Murphey (2017) argue for an A'-movement account of Akan *na*-constructions and claim that the focused object reconstructs for variable binding in (i) below. The question of why the judgements in (52A) and (i) are different has to be left for future research. However, the difference in the acceptability of (ii) and

the sentence in (53A) is incompatible with a distributive reading, suggesting that only surface scope is available for this sentence.<sup>29</sup> The fact that no reconstruction for binding or scope is available for the focused object strongly suggests that this object is base-generated in its surface position.<sup>30</sup>

Admittedly, there appears to be variation among native speakers of Akan Asanti Twi as regards judgments related to reconstruction tests. Thus, while Korsah and Murphey (2017) give the sentence in (54) two question marks due to an alleged WCO violation, all of my language consultants judge it as absolutely grammatical on the coreferential reading. In fact, while the coreferential interpretation is readily conceivable in (54), the alternative construal is less plausible and therefore harder to reach.

- (54) Korsah and Murphey (2017: 24)  
 Hwan na ne- nua tan no?  
 who FOC POSS.3SG- brother hate 3SG  
 ‘Who<sub>i</sub> is hated by his<sub>i</sub> brother?’

Similarly, the sentences in (55) and (56) are judged by Korsah and Murphey (2017) as capable of having a pair-list answer, whereas all of my language consultants find such an answer incompatible with either (55) or (56), with only an individual answer possible.<sup>31</sup>

- (55) Korsah and Murphey (2017: 26)  
 Hwan<sub>1</sub> na abɔfra biara dɔ no<sub>1</sub>?  
 who FOC child every love 3SG  
 ‘Who does every child love?’

(iii), below, suggests that (52A) provides more reliable results. In (ii) and (iii) at no point in the derivation is the universal in an A-position above the argument that embeds the pronoun. Yet, unlike (ii), (iii) allows for the coreferential reading, strongly suggesting that c-command from an A-position is not required for (iii). If so, we have no reason to assume that it is required for (i).

- (i) Korsah and Murphey (2017: 23)  
 [DP ne<sub>i</sub>- manfo-ɔ yie- yɔ ho ]<sub>1</sub> na aban biara<sub>i</sub> dwene no<sub>i</sub> daa.  
 poss-people-pl well-be self FOC government every think 3SG every-day  
 ‘It’s the well-being of its<sub>i</sub> people that every<sub>i</sub> government thinks about every day.’
- (ii) a. \*His<sub>i</sub> mum is loved by every<sub>i</sub> boy.  
 b. \*His<sub>i</sub> mum concerns every<sub>i</sub> boy.
- (iii) a. ?The well-being of its<sub>i</sub> people is thought about by every<sub>i</sub> government.  
 b. The well-being of its<sub>i</sub> people concerns every<sub>i</sub> government.

<sup>29</sup> A *na*-construction with a focused universal quantifier, as in (i), sounds odd to some speakers of Akan because universal quantifiers cannot be assigned narrow focus interpretation (Titov 2013a: 446) and they can be neither CFs nor CTs (Titov 2013a: 449) unless every member of the set out of which they select is modified by ‘every’. In other words, for ‘every boy’ to be interpreted as a narrow focus, this constituent must select not out of a set of boys but out of a set of the type {every boy, every girl ...}. Naturally, this interpretation is not easy to accommodate. Nevertheless, if it is accommodated, the sentence in (i) can only have surface scope.

- (i) ?ɔbarima biara na ɔbaa baako dɔ no.  
 boy every FOC girl one love 3SG  
 ‘Every boy is who one girl loves.’  $\forall > \exists; ?\exists > \forall$

<sup>30</sup> The base-generation account is further supported by the *Clausal Typing Hypothesis* (Cheng 1997) that predicts that no language can have both – moved and in-situ *wh*-objects. Cheng (1997) convincingly argues that in languages that appear to exhibit such behaviour, such as Egyptian Arabic, Bahasa Indonesia and Palauan, a *wh*-argument is in fact base-generated as a subject of a *wh*-cleft.

<sup>31</sup> Korsah and Murphey (2017) use a number of tests for reconstruction. However, the relevant tests are either unreliable, because they do not show that we are dealing with syntactic reconstruction (see Footnote 28), or they contain judgments that have not been confirmed by my language consultants.

- (56) Korsah and Murphey (2017: 26)  
 Hwan<sub>1</sub> na Kofi ka- a [<sub>CP</sub> sɛ abɔfra biara dɔ no<sub>1</sub>]?  
 who FOC Kofi say-PAST that child every love 3SG  
 ‘Who did Kofi say that every child loves?’

The following analysis is based on the judgements provided by my language consultants. These judgements indicate that at least in the grammar of these speakers no syntactic reconstruction takes place in Akan *na*-constructions, strongly suggesting that the surface position of the focused object is not derived by movement.

The conclusion that the focused object in *na*-constructions is base-generated in its surface position poses the question of the co-occurrence of focused XPs with corresponding resumptive pronouns. In particular, the assumption that the focused XP is generated within the same clause as the resumptive pronoun in the corresponding thematic position immediately runs into a problem with the *Theta-Criterion* (Chomsky 1981), according to which it is impossible for a predicate to assign the same  $\theta$ -role to more than one argument. Given that the focused XP does not move, we cannot assume that the relevant  $\theta$ -role is assigned to a chain formed by the focused XP and its pronominalized trace – the resumptive pronoun (Boadi 1974; Korsah and Murphey 2017).<sup>32</sup> Hence, the only option we are left with is to assume that the focused XP and the resumptive pronoun occur in separate clauses and receive their  $\theta$ -roles from distinct predicates, i.e., the Akan *na*-construction has a biclausal structure.

It has been noticed by a variety of scholars that Akan focus constructions and constructions involving restrictive relative clauses show striking formal similarities, a fact which suggests that there is some deep relationship between these constructions (Schachter’s 1973; Boadi 1974; Bearth 1999; Dakubu 2005; Ofori and Osam 2006; Schwarz and Fiedler 2007; Ofori 2011; Korsah and Murphey 2017). To begin with, both types of constructions contain resumptive pronouns (see (57c) and (57d)). Yet, the most fascinating resemblance between the two constructions concerns tone. That is, in the formation of both restrictive relative clauses and focus constructions, certain underlying low tones must be replaced by high tones. Strikingly, exactly the same replacements must occur in both construction types (see (57)). (In (57), acute and grave accents represent high and low tone, respectively).

- (57) (Adapted from Schachter 1973: 23)  
 a. Mè-húù àbòfrá.  
 I-saw child  
 ‘I saw a child’

<sup>32</sup> The focused XP in Akan *na*-constructions cannot be a *hanging topic* (King 1995; van Riemsdijk 1997 and Pereltsvaig 2001) because Akan focus constructions can be embedded (see (i)).

- (i) a. Kofi ka kyere-ε me sɛ Ama na ɔ- dii akutu no.  
 Kofi told show me that Ama FOC 3SG- ate oranges def  
 ‘Kofi told me that Ama was who ate the oranges.’  
 b. Me- nim sɛ ɔbaa no na me- huu no.  
 I- know that woman def FOC I- saw 3SG  
 ‘I know that the woman was who I saw.’

An analysis that assumes creation of the so-called A'-CHAIN (Cinque 1990; Anagnostopoulou 1997; Wiltschko 1997; Zaenen 1997; Frey 2004) is inapplicable to Akan data due to the lack of connectivity effects. Moreover, the fact that a non-contrastive NIF can occur in the leftmost position in *na*-constructions suggests that this is an A-, not A'-position.

- b. Mè- húù nò.  
I- saw 3SG  
'I saw him/her.'
- c. àbòfrá áà mé- húù nó  
child REL I- saw 3SG  
'a child that I saw'
- d. Àbòfrá nà mé- húù nó.  
child FOC I- saw 3SG  
'A child is who I saw.'

The restrictive relative clause and the focus construction in (57c) and (57d), respectively, differ only with respect to the marker (i.e., relative or focus), while everything else is identical. Crucially, when they are compared to the SVO sentences in (57a) and (57b), it becomes apparent that focus constructions and restrictive relative clauses involve changes in tone that are absent in simple clauses.<sup>33</sup>

The above observations suggest that a successful analysis of the Akan focus construction must capture its relatedness to constructions involving restrictive relative clauses. A popular trend in the linguistic literature on Akan is to assume that the Akan focus construction, as in (58), is diachronically derived from a cleft construction.<sup>34</sup> One such analysis proposes that (58) is derived from the biclausal clefted focused sentence in (59) via deletion of the introductory  $\epsilon y \epsilon$  'it is' clause (Boadi 1974).

- (58) Kofi<sub>i</sub> na ɔ<sub>i</sub>- baa ha.  
Kofi FOC 3SG- come.PAST here  
'Kofi came here.'

- (59) Ofori (2011: 242–243)  
 $\epsilon$ -y $\epsilon$  Kofi na ɔ- ba-a ha.  
it-is Kofi FOC 3SG- come-PAST here  
'It is Kofi who came here.'

Boadi's (1974) analysis is based on the observation that the sentences in (58) and (59) are semantically related to extraposed and non-extraposed pseudoclefted sentences, containing restrictive relative clauses, as in (60) and (61). He analyses the copula *ne* that is used in extraposed and non-extraposed pseudoclefted sentences as the allomorphic variant of *na* and assumes that *ne* results from *na*-y $\epsilon$  fusion.

- (60) Kofi ne onipa<sub>i</sub> a ɔ<sub>i</sub>- baa ha.  
Kofi is person REL 3SG- come.PAST here  
'Kofi is the person/one who came here.'

- (61) Ofori (2011: 242–243)  
Onipa<sub>i</sub> a ɔ<sub>i</sub>- baa ha ne Kofi.  
person REL 3SG- come.PAST here is Kofi  
'The person who came here is Kofi.'

<sup>33</sup> For a discussion of these tonal substitutions, see Schachter and Fromkin (1968: 207–15, 239–44). Korsah and Murphey (2017) argue that Akan *na*-constructions with focused objects consistently involve tonal overwriting on verbs, whereby low tones are replaced with high tones, which they analyse as a tonal reflex of the A'-moved object crossing the verb. However, (57d) does not seem to involve such tonal overwriting on the verb.

<sup>34</sup> According to Ameka (2010), although Akan *na*-sentences are clearly related to cleft sentences, one does not have to be derived from the other.

Although Boadi's (1974) analysis successfully captures the semantic and formal relatedness of Akan focus constructions, as in (58), and Akan pseudoclefts, as in (60), it runs into a problem with the Theta Criterion as it assumes a process that results in a monoclausal structure. To be precise, Boadi (1974) assumes that the focused constituent in the Akan focus construction undergoes movement from its thematic position, with the resulting sentence undergoing an obligatory *Pronominalization Rule* that turns the lower copy into a pronoun. Under this analysis, the corresponding  $\theta$ -role is assigned by the predicate to the chain formed by the moved focus and its pronominalized trace.<sup>35</sup> However, we have seen that reconstruction tests do not support a movement analysis. Yet, if the focused constituent is base-generated (Saah 1994; Ofori 2011), the Theta Criterion dictates that it must be generated in a clause that is separate to the one hosting the pronoun. Consequently, the structure of the Akan focus construction must be biclausal.

The hypothesis that I would like to put forward is that the biclausal Akan focus construction, as in (58), is not derived from a cleft construction, but is itself a pseudocleft construction that exists independently in the language. To be precise, the Akan focus construction is an *inverse pseudocleft*.<sup>36</sup> This conclusion is based on the observation that constructions of the type given in (58) can be found in other languages, such as English (see (62)), where they are not taken to be derived from any other construction involving a restrictive relative clause.

(62) John is who came here.

The English inverse pseudocleft, as in (62), is not only syntactically parallel to the Akan focus construction, it also has the same IS partitioning. That is, just like the Akan focus construction, the English inverse pseudocleft construction can only be used when the sentence-initial XP is the narrow focus of the sentence, as in (63), but not when it is part of a wider focus, as in (64), or (part of) a background, as in (65). Plausibly, the inverse pseudocleft construction is employed in both languages to signal narrow focus on the sentence-initial XP.<sup>37</sup>

(63) **John** is who I saw (not Bill).

(64) Q: What happened?  
A: #John is who I **saw**.

(65) Q: Who is John?  
A: #John is who I **saw**.

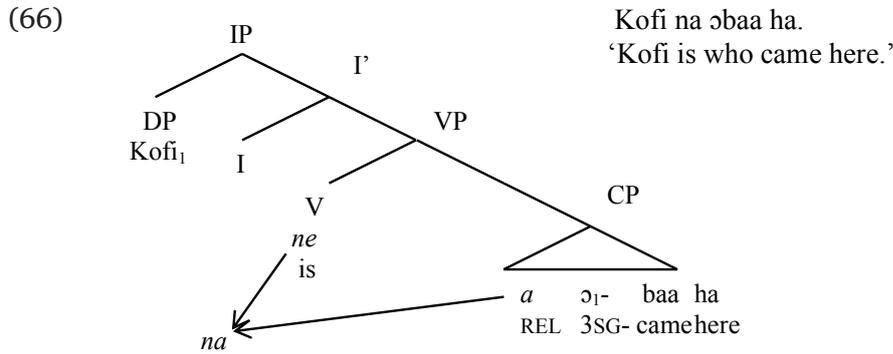
<sup>35</sup> Since Boadi (1974) analyses Akan focus constructions as derived from cleft constructions, his analysis wrongly predicts that pronouns found in Akan restrictive relative clauses are also copies of movement.

<sup>36</sup> I am very grateful to Matthew Reeve for making me aware of the existence of inverse pseudoclefts.

<sup>37</sup> Just like a leftmost constituent in Akan *de(ɛ)*-constructions, a sentence-initial constituent in English pseudoclefts has the interpretation of a CT when it carries the corresponding marker (see (i) where it carries the B-accent). Hence, in both languages the inverse pseudocleft is used to signal narrow focus on the sentence-initial constituent, with PF determining whether this constituent has the interpretation of exclusion (CF) or potential inclusion (CT). In English, the two interpretations are disambiguated via prosody, in Akan via morphology.

(i) *John* is who I **saw** (and Bill is who I heard).

The analysis of the *na*-construction as a biclausal inverse pseudocleft solves the problem with the Theta-Criterion, as the focused argument in SpecIP gets its  $\theta$ -role from the CP predicate it c-commands in (66) (Den Dikken et al. 2000).<sup>38</sup>



Furthermore, the analysis in (66) successfully captures the anti-reconstruction effects in Akan focus constructions. Given the position of the focused DP in (66), it is unsurprising that it fails to reconstruct for binding into the CP containing the resumptive pronoun. After all, this DP is generated in an A-position in the higher IP (see also den Dikken et al. 2000 who show that subjects of inverse pseudoclefts occupy A-positions). As for the surface quantifier scope facts, they also follow from the analysis in (66) under the assumption that quantifiers can take scope over non-clausemate quantifiers which they c-command from an A-position (see (67) and (68)).

(67) Every boy said that John ate a hot dog.  $\forall > \exists$

(68) A boy said that John ate every hot dog.  $\exists > \forall$

Following Ofori (2011), the analysis in (66) takes the focus marker *na* to be a result of a fusion of the copula *ne* and the relative marker *a*.<sup>39</sup> Since the copula and the relative marker are productively used in contemporary Akan (see (60)), we can hypothesize that *na* is merely a result of a contraction of *ne* [nI] and *a* [a] that takes place at the PF level in Akan inverse pseudoclefts, as no phonological material ever intervenes between the copula and the relative marker in such constructions. In extraposed pseudoclefts, in contrast, intervening phonological material prevents the relevant contraction from taking place (see (60)). According to Ofori (2011), the lack of morphophonological intervention creates /nI/ and /a/ contiguity, as in (69-i). A consequence of this contiguity is the deletion of /I/ by the morphophonological rule, /I/  $\emptyset$  /n\_ + a/ ([a] being the relativizer), and the fusion of [n] and [a] to derive *na*, which results in the *na*-focus sentence alternation, as in (69-ii). In line with the above analysis, Ofori (2011) proposes that *na* is a ‘portman-teau morpheme’ (Hockett 1947; Newman 2000) consisting of *ne* –copula – and *a* ‘the relativizer’.<sup>40</sup>

<sup>38</sup> Following Den Dikken et al. (2000), I assume that in a pseudocleft, the CP is a predicate and the focused constituent is an argument in an A-position (see (63)). To sustain the idea that each clause contains a VP, I assume that the copula is generated as the head of the VP. I stay agnostic to the question of whether the copula *ne* moves to I° in Akan. Alternatively, the copula could be generated in I°, with no VP present in the higher clause.

<sup>39</sup> Ofori (2011) analyses the Akan focus construction, as in (54), as derived from an extraposed pseudocleft construction, as in (56), via NP-deletion of *onipa* ‘person’ and the merging of the copula *ne* and the relative operator *a*, which results in the focus marker *na*.

<sup>40</sup> The question of the origin of the marker *de(ɛ)* has to be left for future research, as it falls outside the scope of this paper.

- (69) Ofori (2011: 246)  
 (i) [Kofi]<sub>NP</sub> [ne]<sub>VP</sub> [a ɔ<sub>i</sub>- baa ha.]<sub>RC</sub> → (ii) Kofi na ɔbaa ha.  
 Kofi is REL 3SG-come.PAST here  
 ‘Kofi is the one who came here.’

The above analysis assumes that the focused constituent and the focus marker *na* do not form a constituent (see (66)). Such a conclusion is supported by the observation that the string containing the focused constituent and the marker does not pass the answer ellipsis or coordination constituency tests (see (70) and (71), respectively).

- (70) Q: Hena na wo- huu no?  
 who FOC you- saw 3SG.ANIM  
 ‘Who was it that you saw?’  
 A: \*Ama na.  
 Ama FOC
- (71) a. Adwoa ne Kofi na me- huu wɔn  
 Adwoa and Kofi FOC I saw 3PL  
 b. \*Adwoa na ne Kofi na me- huu wɔn  
 Adwoa FOC and Kofi FOC I saw 3PL

To summarize, in this section we have established that a focused constituent in Akan focus constructions is generated in an A-position in the higher clause of a biclausal inverse pseudocleft. The resulting structure successfully captures the reconstruction facts, the co-occurrence of focused constituents with resumptive pronouns and the formal and semantic similarities of Akan focus constructions with other types of pseudocleft constructions. Moreover, the Akan inverse pseudocleft has been demonstrated to have the same IS properties as the corresponding construction in English. The focus marker *na* has been argued to result from a phonological contraction of the copula and the relative marker. This conclusion is further supported by the fact that the focus marker does not form a constituent with the focused XP.

## 6 Conclusion

In this paper, we have established that the Akan morphological markers *na* and *de(ɛ)* perform the same interpretive function as the prosodic markers of focus and CT in intonation languages. We have determined that the morphological marker *de(ɛ)* is a marker of CT and that the morphological marker *na* is the only true morphological marker of focus in Akan. This marker occurs in inverse pseudocleft constructions and is plausibly a result of a phonological contraction of the copula *ne* and the relative marker *a* found in Akan extraposed and non-extraposed pseudoclefted sentences, where contraction cannot take place due to phonological interference (Ofori 2011). The inverse pseudocleft construction is used in Akan to mark narrow focus on the constituent in SpecIP of the higher clause. When the relevant constituent is an object, it is additionally associated with the interpretation of quantification over a discourse-salient set of alternatives, which can be achieved via various strategies, including contrastive, emphatic and exhaustive construal. Although this interpretation is available for in-situ objects as well, the SVO structure is largely ambiguous as to the available IS interpretations, suggesting that the pseudocleft is used in order to disambiguate the IS interpretation of the sentence. A parallel has been drawn with intonation languages in that they also employ a marked representation for the aforementioned interpretive disambiguation.

The Akan subject/non-subject asymmetry observed by a variety of linguists has been accounted for by making a reference to the cross-linguistic tendency for a marked encoding of narrow focus on constituents that are not in the default focus set (Reinhart 2006). The observation that Akan uses the same inverse pseudocleft construction for the encoding of narrow focus on the subject and narrow contrastive focus on the object has been argued here to be due to the fact that this construction contains a position associated with narrow focus (i.e., SpecIP of the higher clause), which is an A-position located outside of the clause containing the main verb and its arguments. The resulting structure is capable of encoding not only the thematic prominence of arguments by keeping them in their thematic positions but also the narrow focus on one of the arguments by placing it in a separate clause where it receives a  $\theta$ -role from the CP predicate it c-commands.

## Abbreviations

IS = information structure, NIF = new information focus, CF = contrastive focus, CT = contrastive topic, VF = verum focus, HAB = habitual, FOC = focus, CT = contrastive topic, 3SG = third person singular, 3PL = third person plural, (IN)ANIM = (in)animate, DEF = definite, QUP = question particle, NOM = nominative, ACC = accusative, GEN = genitive, NEG = negation, PAST = past tense, QT = quotative marker, POSS = possessive, REL = relativizer

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The author has no competing interests to declare.

## Author Information

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