

Empirical investigation of focus and exhaustivity in Akan*

Simone Pfeil Susanne Genzel Frank Kügler

University of Potsdam

It has been observed for many African languages that focussed subjects have to appear outside of their syntactic base position, as opposed to focussed objects, which can remain in-situ. This is known as subject-object asymmetry of focus marking, which Fiedler et al. (2010) claim to hold also for Akan. Genzel (2013), on the other hand, argues that Akan does not exhibit a subject-object focus asymmetry. A questionnaire study and a production experiment were carried out to investigate whether focussed subjects may indeed be realized in-situ in Akan. The results suggest that (i) focussed subjects do not have to be obligatorily realized ex-situ, and that (ii) the syntactic preference for the realization of a focussed subject highly depends on exhaustivity.

Keywords: Akan, focus, subjects, exhaustivity, in-situ

1 Introduction

Many African languages of the Gur, Kwa, and (West) Chadic language groups as well as Bantu languages display a so called subject-object asymmetry of focus marking (Fiedler and Schwarz, 2005; Fiedler et al., 2010; Marfo and Bodomo, 2005; Zerbian, 2007). This asymmetry relates to the observation that focussed subjects need to be overtly marked syntactically, whereas focussed ob-

* The article is based on the master's thesis of Simone Pfeil. We would like to thank Dr. Charles Marfo for help with the translation and glossing, and Priscilla Koduah who was of great help for finding native speakers of Asante Twi in Berlin. We would also like to thank Agata Renans and Reginald Akuoko Duah for their helpful comments on an earlier version of this paper. This research was funded by the DFG (SFB 632 'Information structure', project D5).

jects need not.¹ In this article, we investigate whether focussed subjects in Akan can remain syntactically unmarked.

Akan, a Kwa language of the Niger-Congo phylum, is one of the major languages of Ghana. It is spoken in the central and southern parts of Ghana by over 8.3 million people (Lewis, 2009). Akan comprises the three main dialects Akuapem Twi, Fante and Asante Twi. The present article deals with Asante Twi, for which we will use the term Akan throughout. Furthermore, Akan is a tone language that distinguishes between a High and a Low tone (Dolphyne, 1988). Its unmarked word order is SVO (Boadi, 1974; Saah, 1994) and it displays “head-initial characteristics” (Aboh, 2010; Boadi, 2005; Kobele and Torrence, 2006, 162), which means that nouns precede adjectives, determiners, and numerals, see (1).²

- (1) Kontromfi no tua dua kakraa futufutu.
 monkey DET possess.PRS tail huge fluffy
 ‘The monkey has a huge fluffy tail.’

(Genzel, 2013, 8)

Focus highlights “the part of an answer that corresponds to the wh-part of a constituent question” (Krifka, 2007, 22). Krifka further notes that “[o]ther pragmatic uses of focus are to correct and confirm information.” (p. 23). In this case, an antecedent in the previous discourse is corrected, and thus the corrected constituent is in focus. In Akan, a focussed constituent can appear either in-situ or ex-situ, cf. (2).³ While in-situ focus has not attracted much attention in the

¹ Frequently, the term subject / non-subject asymmetry is used, since this asymmetry generally concerns subjects and non-subjects (i.e. objects, adverbials and verbs). Throughout the article, we will use the term subject-object asymmetry.

² All examples are glossed according to the Leipzig Glossing Rules (Comrie et al., 2008). The following glosses are used: ANI = animate, DET = determiner, DITRANS = ditransitivity marker, FM = focus marker, INA = inanimate, OBJ = object, PL = plural, PRS = present tense, PST = past tense, SG = singular, SUBJ = subject, TM = terminal marker.

³ Both constructions are also used for question formation in Akan (Saah, 1988).

literature, except for similarities in syntactic marking with *wh*-question (Saah, 1988; Kobele and Torrence, 2006), a huge body of research is concerned with the *ex-situ* focus construction (e.g. Schachter and Fromkin, 1968; Schachter, 1973; Boadi, 1974; Saah, 1988; Kobele and Torrence, 2006; Amfo, 2010; Ofori, 2011). As a consequence, we did not find any examples in the literature that contrast *in-situ* and *ex-situ* focus in the same context. To illustrate that focus in answers to the same question/context can either appear *in-situ* or *ex-situ*, we use realizations of object focus chosen from a corpus, which was elicited with a situation description task (Genzel and Kügler, 2010). The example is presented in (2). The question suggests that the person asking believes that *Anum bought salty fish*. The respondent, however, knows that it was not *salty fish* but *mango* that *Anum bought*. Thus, the object is corrected by the responder and the corrected object is in focus. If the object (*a*)*mango* is focussed *in-situ*, the word order of the sentence is maintained and the focussed element stays in its base position (Saah, 1988, 1994; Ermisch, 2006), see (2-A1).⁴ If the focussed object (*a*)*mango* is realized *ex-situ*, the focussed element is moved to the sentence initial position and the morpheme *na* is inserted to its right, cf. (2-A2).

(2) Q: Did Anum buy salty fish this morning?

A1: Daabi. Anum tɔ-ɔ AMANGO anɔpa yi.
No. Anum buy-PST mango morning this
'No. Anum bought a MANGO this morning.'

A2: Daabi. MANGO_i na Anum tɔ-ɔ no_i anɔpa yi.
No. mango FM Anum buy-PST 3.SG.OBJ.INA morning this
'No. It is a MANGO that Anum bought this morning.'

(Genzel and Kügler, 2010, 98, 97)

Na has been described as a focus marker (e.g. Boadi, 1974; Saah, 1988; Amfo, 2010; Ofori, 2011). Boadi (1974, 7) analyses it as an exclusive focus marker: "*na* narrows down the referential range of the constituent [...] and places it in

⁴ In all examples, the focussed constituent is indicated by capital letters.

an exclusive class by itself, thus bringing this constituent into sharp contrast with all other members of the paradigm.” The ex-situ structure is assumed to be a cleft-construction (Kobeke and Torrence, 2006), which is corroborated by the fact that $\varepsilon\text{-y}\varepsilon$ (‘it is’) may precede the fronted element. In contrast to in-situ focus, the ex-situ construction is also assumed to convey an exhaustive interpretation of focus (Ermisch, 2006; Saah, 1988). Consequently, the construction in (2-A2) expresses that Anum bought nothing else but mango. A resumptive pronoun may be inserted at the base position of the focussed object. This is illustrated by co-indexation of *mango* and *no* in (2-A2). If the fronted focus constituent is a subject, the resumptive pronoun is obligatory (e.g. Ameka, 2010). Dolphyne (1988, 90) makes two important observations with respect to resumptive pronouns and morphological focus marking, which will be relevant in the remainder of this paper. First, if the fronted element is an animate singular or plural subject, speakers of Asante Twi may use the inanimate singular form ε - instead of the regular animate form ɔ- as resumptive pronoun. Second, *na* may be realized as *ne/nε* if it is followed by the inanimate coreferent pronoun ε .⁵ Dolphyne (1988, 90) notes that this pronunciation of the focus marker is an assimilation of the focus marker *na* with the inanimate pronoun ε .

According to Fiedler et al. (2010), focus marking in Akan exhibits a subject-object asymmetry, as it only allows focussed objects to be unmarked, cf. (2-A1). In other words, only objects, more specifically non-subjects, may appear in-situ. Focussed subjects, on the other hand, are required to be overtly marked, which means that they can only be focussed ex-situ. Genzel (2013), however, contradicts this view and claims that focussed subjects and focussed objects can be realized ex-situ and in-situ and that, consequently, Akan does not exhibit a subject-object asymmetry of focus marking. Her claim is supported by evidence from Duah (2014), who suggests that focussed subjects have to be realized in-

⁵ Note that Akan exhibits vowel harmony (Stewart, 1967; Clements, 1985; Dolphyne, 1988), and in particular a process of regressive [+ATR] vowel harmony across word boundaries (Dolphyne, 1988; Kügler, 2015), which causes the alternation of $e \sim \varepsilon$ on the focus marker.

situ if the focussed constituent has a non-exhaustive interpretation. This is illustrated in (3). The context in (3) triggers the expectation that more than one person attended the funeral. A realisation in which the focus appears ex-situ (3-A2) is infelicitous because the non-exhaustive interpretation is not conveyed by the ex-situ construction.

- (3) Q: Hwan na ɔ-ba-a ayie no?
 who FM 3.SG.SUBJ.ANI-come-PST funeral DET
 ‘Who came to the funeral?’
- A1: KOFI ba-a-e-ε.
 Kofi come-PST-DITRANS-TM
 ‘KOFI came.’
- A2: *KOFI na ɔ-ba-a-e-ε.
 kofi FM 3.SG.SUBJ.ANI-come-PST-DITRANS-TM
 ‘It was KOFI who came.’

(Duah, 2014, 23; glosses adjusted)

Although the example in (3) supports the claim of Genzel (2013), the issue of in-situ focussed subjects in Akan needs further investigation. This includes especially the collection of controlled data on the realisation of subject focus in non-questions (see Saah, 1988; Kobele and Torrence, 2006, for data on questions). Moreover, quantitative studies investigated the preferences for marking different focus types on the object (Genzel and Kügler, 2010; Kügler and Genzel, 2012) but did not address the issue of subject focus marking. Therefore, the present article aims at answering the following questions:

- (i) Are focussed subjects obligatorily realized ex-situ in Akan?
- (ii) Which role does exhaustivity play for marking focus? Does ex-situ focus involve an exhaustive interpretation?

To answer these questions, we conducted a questionnaire study and a production experiment. The questionnaire study, which functions as a pre-study to the experiment, should show whether the grammatical judgements by Duah (2014)

presented in (3) can be generalized and whether the reverse prediction holds for exhaustive contexts, i. e., whether an in-situ focussed subject is infelicitous in an exhaustive context. The production experiment was carried out in order to quantify the results.

2 Pre-study – A questionnaire

2.1 Methodology

The questionnaire comprised two English question-answer pairs, in which the focus was elicited on the subject of the answer, see (4) and (5). The focus in (4) should be interpreted as exhaustive, since *Kodwo* was the only person who ate the food. The focus in (5), on the other hand, should be interpreted as non-exhaustive, because more than one person arrived: Apart from *Kofi*, *Ama* arrived, too. The participants were instructed to translate the question and the answer to Akan ('Translation Task', see Renans et al., 2011) and, especially, to clarify whether the focussed subject in the answer could be realized in-situ. In total, three native speakers of Akan answered the questionnaire. All of them were male and between 24 and 30 years old.

- (4) Q: Who ate the food?
A: KODWO ate the food.
- (5) Q: Kofi arrived. Who else arrived?
A: AMA arrived.

2.2 Results

The results of the questionnaire are given in (6) and (7). Regarding the translation of the answer to the exhaustive context (4), all participants stated that focussing the subject in-situ was not preferred here, which is indicated by the question mark in front of the structure in (6-A1). Two speakers claimed that

the in-situ construction did not answer the question sufficiently, whereas one speaker described it as odd. Consequently, the focussed subject had to be expressed by an ex-situ construction in the answer. This is illustrated in (6-A2). Ex-situ focus is indicated by the presence of the focus marker *na*, and by the resumptive animate third person subject pronoun *ɔ*, which is prefixed to the verb.

- (6) Q: Who ate the food?
 A1: ? KODWO di-i adua no.
 Kodwo eat-PST food DET
 ‘KODWO ate the food.’
 A2: KODWO na ɔ-di-i adua no.
 Kodwo FM 3.SG.SUBJ.ANI-eat-PST food DET
 ‘It was KODWO who ate the food.’

The answer to the *wh*-question of the non-exhaustive context (5) was translated as the structure in (7-A1) by all three participants. The focussed subject was followed by the additive particle *nso*. Following Amfo (2010), we assume that this structure is an instance of in-situ focus. One speaker explicitly judged (7-A2) as ungrammatical. The other two speakers did not comment on the appropriateness of the ex-situ structure in the non-exhaustive context.

- (7) Q: Kofi arrived. Who else arrive?
 A1: AMA nso ba-a.
 Ama also come-PST
 ‘AMA also came.’
 A2: * AMA na ɔ-ba-a.
 Ama FM 3.SG.SUBJ.ANI-come-PST
 ‘It is AMA who came.’

2.3 Conclusion

Our results confirm the judgements of Duah (2014) insofar as none of the speakers used an ex-situ subject followed by the focus particle *na* in answers to a

context that elicits a non-exhaustive interpretation. The reverse relation holds for the exhaustive context, in which in-situ focus was regarded as infelicitous. These findings show that the realization of the focussed constituent depends on the interpretation of the focus (exhaustive vs. non-exhaustive). The experiment, which is presented in the next section, investigates whether the results of the questionnaire also hold for a larger sample.

3 Production experiment

3.1 Methodology

The set-up of the production experiment was inspired by the ‘Focus Cards’ task of the Questionnaire on Information Structure (QUIS, see Skopeteas et al., 2006), in which participants have to answer questions about visual stimuli (see also Kügler and Genzel, 2014). Similar to the questionnaire, the experiment comprised two conditions, which elicited different focus interpretations: The first condition established an exhaustive, and the second one a non-exhaustive focus interpretation. In order to control for syntactic priming effects, the wh-questions used in both conditions were constructed with the wh-phrase appearing ex-situ, see (8a) and (9a), and in-situ, see (8b) and (9b). Each condition was repeated four times throughout the experiment. Additionally, filler items were interspersed to make the experiment more varied. All stimuli were randomized and then organized such that fillers and experimental items alternated.

Exhaustive focus on the subject was elicited through the context questions in (8). The visual stimulus used in this condition is displayed in Figure 1(a). To ensure that the participants interpret the subject exhaustively, only one of the displayed persons was holding the type of fruit that was mentioned in the corresponding question. The name of the displayed person was given below the picture in both conditions.

- (8) a. Hwan na ɔ-kura aborɔbɛ no?
 who FM 3.SG.SUBJ.ANI-hold.PRS pineapple DET
 ‘Who is holding the pineapple?’
- b. Hwan kura aborɔbɛ no?
 who hold.PRS pineapple DET
 ‘Who is holding the pineapple?’



Laura

Thomas

Sara

(a) Exhaustive condition



Thomas

Daniel

Laura

(b) Non-exhaustive condition

Figure 1: Visual stimuli used for the exhaustive (a) and non-exhaustive (b) condition.

Non-exhaustive focus on the subject was elicited using the questions in (9). The corresponding visual stimulus is presented in Figure 1(b). Since the focus

should be interpreted as non-exhaustive in this condition, the displayed photos showed two persons holding the same type of fruit.

- (9) a. Sara kura kwadu. Hwan bio na ɔ-kura
 Sara hold.PRS banana who also FM 3.SG.SUBJ.ANI-hold.PRS
 kwadu?
 banana
 ‘Sara is holding a banana. Who else is holding a banana?’
- b. Sara kura kwadu. Hwan bio kura kwadu?
 Thomas hold.PRS banana who also hold.PRS banana
 ‘Thomas is holding a banana. Who else is holding a banana?’

All context questions were spoken by a native male speaker of Asante Twi and were recorded in a quiet room at the University of Potsdam. The recordings were made directly on a laptop using Audacity (version 2.0.5) and a microphone. In the experiment, the pre-recorded questions were presented through headphones (Sennheiser HD 520 II).



Figure 2: Experimental set-up using presentation-software for both conditions.

The experiment was carried out using presentation software. Each slide of the experiment included a loudspeaker icon at the top and the visual stimuli at the

bottom, see Figure 2. The participants were instructed to first click on the loud-speaker icon to listen to the pre-recorded question. Second, they were asked to answer the question with reference to the visual stimuli. In order to familiarise the participants with this task, a test trial consisting of five stimuli preceded the experiment. The experiment was self-paced.

The answers of the participants were recorded on a laptop and edited with Praat (version 5.1.35). The resulting structures were analysed as *ex-situ* when they contained the focus marker *na* (or *ne/ne*), together with the resumptive animate third person subject pronoun *ɔ-* or the inanimate variant *ε-*. Structures that neither contained the focus marker *na* plus resumptive pronoun nor *ne* were analysed as *in-situ*. Following Amfo (2010), we analysed structures that exhibited the additive particle *nso* as *in-situ*. Instances in which a pronoun was prefixed to the verb were also analysed as *in-situ*. The pronoun may be a left-over verb agreement prefix (Osam, 1994, 124). This is illustrated in (10) with an animate subject pronoun. We assume that the inanimate variant may occur as well. The question mark in (10) indicates that the structure is grammatical but not frequently used by speakers of Akan.

- (10) ? o-wura no o-nim ade.
 3.SG.SUBJ.ANI-man DET 3.SG.SUBJ.ANI-know thing
 ‘The man is intelligent.’

(Osam, 1994, 124; glosses adjusted)

3.2 Participants

Eleven native speakers of Akan (6 male, 5 female) participated in the experiment. Of these eleven participants, ten were native speakers of the Asante Twi dialect. One male participant was a native speaker of the Fante dialect. Most speakers stated that English was their second native language or the language they primarily use. The average age was 35 years. Eight native speakers (including the Fante speaker) were between 21 and 32 years old. The remaining

three speakers were 50, 54 and 62 years old. The majority of the Akan speakers were recorded at the community hall of the St. Marien Liebfrauen congregation in Berlin-Kreuzberg.

3.3 Results

In total, 88 target structures were produced, all of which contained a focussed subject. One construction in the non-exhaustive condition was a slip of the tongue, and consequently discarded from further analysis. Hence, the total structures analysed sum up to 87 in Table 1, which displays the absolute frequencies of ex-situ and in-situ subjects in the exhaustive and non-exhaustive condition. Overall, subjects were slightly more frequently focussed ex-situ (53%) than in-situ (47%).

Condition	Construction		Total
	ex-situ	in-situ	
exhaustive	40	4	44
non-exhaustive	6	37	43
Total	46	41	87

Table 1: Absolute frequencies of ex-situ and in-situ focussed subjects in the exhaustive and non-exhaustive condition.

The majority of answers to the exhaustive context questions were realized with an ex-situ focussed subject. 40 of a total of 44 structures were analysed as ex-situ, since they either contained the focus marker *na* and a third person subject pronoun prefixed to the verb, or the assimilated variant of the focus marker, *ne*. The maximally possible ex-situ structure, inspired by Kobele and Torrence (2006), is presented in (11), parentheses mark optionality.

- (11) a. (ε -y ε) SUBJECT na \varnothing / ε -verb object
 b. (ε -y ε) SUBJECT (ε -)ne verb object

(based on Kobele and Torrence, 2006, 165)

31 out of these 40 *ex-situ* structures contained the assimilated variant of the focus marker, *ne*. As shown in (11b), the minimal realization of this structure only contains the assimilated variant of the focus marker. This was the case for 19 of the 31 *ex-situ* cases. An example is presented in (12).

- (12) SARA ne kura apro no.
 Sara FM.3.SG.SUBJ.INA hold.PRS apple DET
 ‘It is SARA who is holding the apple.’

In 10 of these 31 cases, the assimilated variant of the focus marker, *ne*, was preceded by the third person inanimate subject pronoun ε -, as shown in (13).

- (13) SARA ε -ne kura apro no.
 Sara 3.SG.SUBJ.INA-FM.3.SG.SUBJ.INA hold.PRS apple DET
 ‘It is SARA who is holding the apple.’

The assimilated variant of the focus marker, *ne*, was preceded by the copula ε -y ε in two out of these 31 cases. When the copula occurred, no inanimate third person subject pronoun preceded the focus marker *ne*, as illustrated in (14).

- (14) ε -y ε THOMAS ne kura
 3SG.SUBJ.INA-be.PRS Thomas FM.3.SG.SUBJ.INA hold.PRS
 aborɔbɛ no.
 pineapple DET
 ‘It is THOMAS who is holding the pineapple.’

In the remaining nine *ex-situ* realizations, the focus marker *na* occurred. *Na* was never preceded by the inanimate third person subject pronoun ε . However, a third person pronoun, which was prefixed to the verb, occurred without exception, which is illustrated in (15).

- (15) SARA na ɔ-kura apro no.
 Sara FM 3SG.SUBJ.ANI-hold.PRS apple DET
 ‘It is SARA who is holding the apple.’

Table 1 lists four instances of in-situ focus in the exhaustive condition. Two of these four sentences did not contain any pronoun or focus marker. An example showing a canonical SVO sentence is presented in (16). The focus marker *na* did not appear.

- (16) LAURA kura ankaa no.
 Laura hold.PRS orange DET
 ‘LAURA is holding the orange.’

In the other two instances, an inanimate third person subject pronoun preceded the verb. This is illustrated in (17). The occurrence of a subject pronoun prefixed to the verb without further morphological marking is not taken to indicate displacement of the subject out of its base position, since the pronoun may be a left-over verb agreement prefix, cf. (10) and also (22) below.

- (17) LAURA ε-kura ankaa no.
 Laura 3SG.SUBJ.INA-hold.PRS orange DET
 ‘LAURA is holding the orange.’

Turning to the non-exhaustive condition, the majority of answers were realized with an in-situ focussed subject. This applies to 37 of a total of 43 cases, cf. Table 1 above. In 33 of the 37 in-situ realisations, the additive particle *nso* occurred. 18 of these 33 cases only contained *nso*. An example is presented in (18). Recall that the presence of the additive focus particle does not imply syntactic movement (Amfo, 2010), which means that the subject is analysed as in-situ.

- (18) SARA nso kura apro.
 Sara also hold.PRS apple
 ‘SARA is also holding an apple.’

The additive particle *nso* was preceded by the third person inanimate subject pronoun ε in 10 of these 33 cases. The structure is illustrated in (19).

- (19) LAURA ε -*nso* *kura* *kwadu*.
Laura 3SG.SUBJ.INA-also hold.PRS banana
'LAURA is also holding a banana.'

Five further instances that contained the additive particle *nso* also exhibited the inanimate third person subject pronoun which, in these realizations, was prefixed to the verb. An example is presented in (20). Note that the verb *kita* is a variant of the verb *kura* 'to hold'. The participants of this study preferably used the latter.

- (20) THOMAS *nso* ε -*kita* *aborɔbɛ*.
Thomas also 3SG.SUBJ.INA-hold.PRS pineapple
'THOMAS is also holding a pineapple.'

In one of these five cases, the third person inanimate subject marker ε occurred twice, preceding the additive particle *nso* and preceding the verb. The structure is shown in (21).

- (21) DANIEL ε -*nso* ε -*kura* *anaka*.
Daniel 3SG.SUBJ.INA-also 3SG.SUBJ.INA-hold.PRS orange
'DANIEL is also holding an orange.'

The remaining four in-situ structures did not contain any particle after the focused subject. They contained either the inanimate third person subject pronoun ε (3 cases) or the animate third person subject pronoun ɔ (1 case) prefixed to the verb; no additive particle appeared. This is illustrated in (22).

- (22) SARA o -*kura* *apro*.
Sara 3.SG.SUBJ.ANI-hold.PRS apple
'SARA is holding an apple.'

As shown in Table 1, 6 out of 43 answers in the non-exhaustive context were analysed as ex-situ constructions, because they contained the assimilated focus

marker *ne*. Hence morpho-syntactic marking of the subject by means of *na/ne* occurred very rarely in the non-exhaustive condition. In two of these six cases only the assimilated focus marker *ne* was present. An example is shown in (23).

- (23) LAURA *ne* kura kwadu ka Daniel ho.
 Sara FM.3.SG.SUBJ.INA hold.PRS banana be.with Daniel there
 ‘It is LAURA who is holding a banana besides Daniel.’

In three of these six cases, the focus marker *ne* was preceded by the inanimate third person subject pronoun ε , and in one case, by the copula. The latter case also contained a final *bio* (‘also’). However, ε preceding the focus marker and the copula never co-occurred. The structure containing the focus marker *ne*, the copula and *bio* is shown in (24).

- (24) ε -y ε DANIEL *ne* kura ankaa
 3SG.SUBJ.INA-be.PRS Daniel FM.3.SG.SUBJ.INA hold.PRS orange
 bio.
 also
 ‘It is DANIEL who is also holding an orange.’

In one case, the focus marker *ne* followed the additive particle *nso*, which itself was preceded by the inanimate third person subject pronoun ε . The realisation is presented in (25).

- (25) SARA ε -nso ε -*ne*
 Sara 3SG.SUBJ.INA-also 3SG.SUBJ.INA-FM.3.SG.SUBJ.INA
 kura apro no.
 hold.PRS apple DET
 ‘It is even SARA, who is holding the apple.’

4 Conclusion

In the present article, we investigated the effect of exhaustivity on the realization of focussed subjects in Akan by carrying out a questionnaire study and a production experiment. The data was collected to answer the following questions:

(i) Are focussed subjects obligatorily realized ex-situ? (ii) Which role does exhaustivity play for marking focus? Does ex-situ focus involve an exhaustive interpretation?

Regarding the first question (i), the questionnaire and the production experiments showed that focussing the subject in-situ is possible. A note is due to our analysis of in-situ focussed subjects in Akan in the production experiment. First, we followed Amfo (2010) and analysed the appearance of the additive focus particle *nso* following the subject as cases of in-situ focus, cf. the data in (18), (19), (20), and (21). According to Amfo (2010), a structure with the additive particle following the subject does not indicate syntactic movement of the subject constituent. Second, some of the structures that we analysed as in-situ subject focus contained a resumptive pronoun prefixed to the verb, cf. the data in (17) and (22). Our analysis follows Osam (1994, 124) who argues that this resumptive pronoun may constitute a left-over verb agreement prefix, cf. his example in (10). This structure is reminiscent of a left dislocated topic structure (Boadi, 1974; Ameka, 1992; Saah, 1992; Ermisch, 2006), in which the topic constituent occurs sentence-initially and a resumptive pronoun surfaces in the dislocated constituent's base position. However, since our experiment did not control for topicality of the subject, we decided to interpret instances involving a resumptive pronoun as in-situ focussed subjects.

Overall, 41 out of 87 answers of the production experiment that contained a focussed subject were analysed as in-situ structures. 37 of the 41 in-situ cases were realized in the non-exhaustive context. Most of the subjects in the non-exhaustive condition were followed by the additive focus marker *nso*. This result is presumably due to the context question, see (9), which asked for 'who else ...?'. Four instances without any morphological marking appeared as answers to questions that triggered an exhaustive interpretation, see (8). The remaining 40 cases in this condition were realized ex-situ. Most of the subjects in the exhaustive condition were followed by the focus marker *ne/na*. We conclude that focussed subjects do not have to be obligatorily realized ex-situ in Akan.

Ex-situ focussed subjects are not preferred in non-exhaustive contexts and in-situ realizations without any morphological marking are possible in exhaustive contexts.

With regard to the second question (ii), the questionnaire and the production experiment have shown that exhaustivity plays an important role. The results of the production experiment clearly indicate that the choice of the focus marker depends on exhaustivity. In contexts that trigger an exhaustive interpretation, Akan speakers prefer to mark a subject morpho-syntactically by means of constituent fronting and insertion of the focus marker *ne/na*. Morpho-syntactic focus marking was rarely used in contexts that trigger a non-exhaustive interpretation. Boadi (1974) analysed the focus marker *ne/na* as an ‘exclusive’ focus marker. However, our data suggest that this interpretation of the focus marker is too narrow, since the use of *ne/na* is possible in non-exhaustive contexts as well. As an alternative analysis, Ofori (2011) suggests that *na* is derived via fusion of the copula *ne* and the relativizer *a*.⁶ According to him, the function of *na* is not to exclude, individuate or emphasize, as put forward by Boadi (1974) but to demand, assert, or achieve definiteness.

Finally, we cannot conclude whether Akan exhibits a subject-object asymmetry, since our study only investigated the syntactic preferences of focussed subjects. Genzel and Kügler (2010) carried out a situation description task investigating the syntactic preferences of (exhaustive) object focus in answers to wh-questions. Their results show a preference for objects to be realized in-situ without any morphological marking. Furthermore, it has been shown that focussed objects may be marked prosodically (Genzel, 2013; Kügler and Genzel, 2012). Whether or not in-situ subjects may also be marked prosodically has to be left for future research. Subjects were preferably realized ex-situ in the exhaustive condition in the present study. However, to reach a conclusion about

⁶ Note that the focus verb/copula *ne* [ni] and the assimilated variant of *na, ne*, are homophones in Asante Twi. However, sentences that contains the focus verb/copula *ne* also usually contain the relativizer *a*, which is absent in our data.

the presence or absence of a subject-object asymmetry, a similar experiment would have to be conducted for subjects and non-subjects. What can be concluded from the present data is that even the marking of focussed subjects can be asymmetric. They can either remain in-situ or appear ex-situ. This finding contrasts with the proponents of the subject-object asymmetry, who argue that subjects have a particular thematic status that requires additional marking in case of focus (Hartmann and Zimmermann, 2007; Fiedler et al., 2010). Our data has shown that the preference for the morpho-syntactic realization of focussed subjects in Akan is triggered by the interpretation of the focus.

References

- Aboh, E. O. (2010). The Morphosyntax of the Noun Phrase. In Aboh, E. O. and Essegbey, J., editors, *Topics in Kwa syntax*, pages 11–38. Springer, Dordrecht.
- Ameka, F. K. (1992). Focus constructions in Ewe and Akan: A comparative perspective. In Collins, C. and Manfredi, V., editors, *Proceedings of the Kwa comparative syntax workshop*, pages 1–25. MIT, Department of Linguistics and Philosophy, Cambridge.
- Ameka, F. K. (2010). Information Packaging Constructions in Kwa. In Aboh, E. O. and Essegbey, J., editors, *Topics in Kwa syntax*, pages 141–176. Springer, Dordrecht.
- Amfo, N. A. A. (2010). Lexical signaling of information structure in Akan. *Linguistics*, 48(1):195–225.
- Boadi, L. A. (1974). Focus-marking in Akan. *Linguistics: An International Review*, 140:5–57.
- Boadi, L. A. (2005). *Three major syntactic structures in Akan: interrogatives, complementation, and relativisation*. Black Mask Ltd., Accra.

- Clements, G. N. (1985). Akan vowel harmony: a nonlinear analysis. In Goyvaerts, D. L., editor, *African Linguistics: Essays in memory of M. W. K. Semikenke*, volume 6, pages 55–98. Amsterdam: Benjamins.
- Comrie, B., Haspelmath, M., and Bickel, B. (2008). The Leipzig glossing rules: Conventions for interlinear morpheme-by-morpheme glosses. Max Planck Institute for Evolutionary Anthropology and University of Leipzig, retrieved from: <https://www.eva.mpg.de/lingua/pdf/LGR08.02.05.pdf>.
- Dolphyne, F. A. (1988). *The Akan (Twi-Fante) Language: Its Sound System and tonal Structure*. Ghana University Press.
- Duah, R. A. (2014). Focus exhaustivity in Akan. Talk held at the Workshop on Formal Semantics of African, Asian and Austronesian Languages. University of Tübingen.
- Ermisch, S. (2006). Focus and topic constructions in Akan. In Ermisch, S., editor, *Focus and Topic in African Languages*, volume 18 of *Frankfurter Afrikanische Blätter*, pages 51–68. Rüdiger Köppe Verlag, Köln.
- Fiedler, I., Hartmann, K., Reineke, B., Schwarz, A., and Zimmermann, M. (2010). Subject focus in West African languages. In Zimmermann, M. and Féry, C., editors, *Information Structure. Theoretical, Typological, and Experimental Perspectives*, pages 234–257. Oxford University Press, Oxford.
- Fiedler, I. and Schwarz, A. (2005). Out-of-focus encoding in Gur and Kwa. *Interdisciplinary Studies of Information Structure*, 3:111–142.
- Genzel, S. (2013). *Lexical and post-lexical Tones in Akan*. PhD thesis, University of Potsdam, Potsdam, <http://nbn-resolving.de/urn:nbn:de:kobv:517-opus4-77969>.

- Genzel, S. and Kügler, F. (2010). How to elicit semi-spontaneous focus realizations with specific tonal patterns. *Interdisciplinary Studies of Information Structure*, 13:77–102.
- Hartmann, K. and Zimmermann, M. (2007). In place - Out of place? Focus in Hausa. In Schwabe, K. and Winkler, S., editors, *On Information Structure, Meaning and Form: Generalizing across Languages*, pages 365 – 403. Benjamins, Amsterdam.
- Kobele, G. and Torrence, H. (2006). Intervention and focus in Asante Twi. *ZAS Papers in Linguistics*, 46:161–184.
- Krifka, M. (2007). Basic notions of information structure. In Féry, C., Fanselow, G., and Krifka, M., editors, *The Notions of Information Structure*, volume 6 of *Interdisciplinary Studies on Information Structure (ISIS)*, pages 13–56. Universitätsverlag Potsdam.
- Kügler, F. (2015). Phonological phrasing and ATR vowel harmony in Akan. *Phonology*, 32(1):177–204.
- Kügler, F. and Genzel, S. (2012). On the prosodic expression of pragmatic prominence - The case of pitch register lowering in Akan. *Language and Speech*, 55(3):331–359.
- Kügler, F. and Genzel, S. (2014). On the elicitation of focus - Prosodic differences as a function of sentence mode of the context? In *TAL-2014, The 4th International Symposium on Tonal Aspects of Languages, 13-16 May 2014, Nijmegen*, pages 71–74.
- Lewis, M. P., editor (2009). *Ethnologue: Languages of the World*. SIL, Dallas, TX.

- Marfo, C. and Bodomo, C. (2005). Information structuring in Akan question-word fronting and focus construction. *Studies in African Linguistics*, 34(2):179–208.
- Ofori, S. A. (2011). On the Basic Focus Marker, and the Basic Focus Sentence, in Akan (Twi). *Nordic Journal of African Studies*, 20:241–262.
- Osam, E. K. (1994). *Aspects of Akan Grammar – A Functional Perspective*. PhD thesis, University of Oregon.
- Renans, A., Zimmermann, M., and Greif, M. (2011). *Questionnaire on Focus Semantics - 2nd edition*. Interdisciplinary Studies on Information Structure (ISIS), vol. 15. Universitätsverlag Potsdam, Potsdam.
- Saah, K. K. (1988). Wh-questions in Akan. *Journal of West African Languages*, 18:17–28.
- Saah, K. K. (1992). Null object constructions in Akan. In Collins, C. and Manfredi, V., editors, *Proceedings of the Kwa comparative syntax workshop*, pages 219–244. MIT, Department of Linguistics and Philosophy, Cambridge.
- Saah, K. K. (1994). *Studies in Akan Syntax, Aquisition and Sentence Processing*. PhD thesis, University of Ottawa.
- Schachter, P. (1973). Focus and relativization. *Language*, 49:19–46.
- Schachter, P. and Fromkin, V. (1968). Phonology of Akan. In *Working Papers in Phonetics 9*, pages 1–268. Department of Linguistics, UCLA.
- Skopeteas, S., Fiedler, I., Hellmuth, S., Schwarz, A., Stoel, R., Fanselow, G., Féry, C., and Krifka, M. (2006). *Questionnaire on Information Structure (QUIS)*. Interdisciplinary Studies on Information Structure (ISIS), vol. 4. Universitätsverlag Potsdam, Potsdam.

Stewart, J. M. (1967). Tongue Root Position in Akan Vowel Harmony. *Phonetica*, 16(4):185–204.

Zerbian, S. (2007). The Subject/Object-Asymmetry in Northern Sotho. In Schwabe, K. and Winkler, S., editors, *Information Structure and the Architecture of Grammar: A Typological Perspective*, pages 323–345. John Benjamins, Amsterdam.

Simone Pfeil
University of Potsdam
Department of Linguistics
Karl-Liebknecht-Straße 24/25
14476 Potsdam
Germany
pfeil.simone@gmail.com

Susanne Genzel
University of Potsdam
SFB 632 “Informationsstruktur”
Karl-Liebknecht-Straße 24/25
14476 Potsdam
Germany
susanne7@gmail.com

Frank Kügler
University of Potsdam
Department of Linguistics & SFB 632 “Informationsstruktur”
Karl-Liebknecht-Straße 24/25
14476 Potsdam
Germany
kuegler@uni-potsdam.de