

Kusaal interrogatives: discourse function and focus distinction

Hasiyatu Abubakari

University of Ghana

Adams Bodomu

University of Vienna, Austria

Proceedings of the LFG'24 Conference

Miriam Butt, Jamie Y. Findlay and Ida Toivonen (Editors)

2024

PubliKon

lfg-proceedings.org

Abstract

Crosslinguistically, interrogative structures exhibit inherent discourse interpretations. This study investigates two types of discourse interpretations marked in question forms in Kusaal, a Mabia language spoken in Ghana. It argues that speakers of Kusaal use morphological means to distinguish between questions that seek new information and others that require exhaustive interpretations on the focused constituent. Specifically, wh-questions in Kusaal manifest in two distinct forms: exhaustive wh-questions and non-exhaustive wh-questions each serving specific discourse functions. While exhaustive wh-questions require the use of the particles *ka* and *ne* in non-subject focus in both the question and answer pairs, the same is not the case in non-exhaustive wh-questions and their corresponding answer pairs. The study shows that exhaustive wh-questions express completeness and total exclusivity of the selected set. They are of the kind A, not B and nothing else. This finer-grained discourse distinction is accounted for using the i-structure of the Lexical-Functional Grammar framework.

Keywords: focused constructions, contrastive wh-questions, non-contrastive wh-questions, Kusaal, Mabia languages.

1 Introduction

Interrogative constructions are universal properties of all-natural languages used for seeking information which may either be new, contrastive or exhaustive (Dayal 2016).^{1,2} Thus, interrogative constructions are conventionally linked with the speech act of requesting information that may or may not be familiar to the interrogator (König and Siemund 2007: 291; Caesar 2016: 35). This study looks at a less studied phenomenon in the literature on question and information packaging in Kusaal, a Mabia language spoken in three West African countries: Ghana, Burkina Faso and Togo. In this language, the discourse status of an interrogative construction defines the discourse status of the corresponding answer pair. Although all question types open alternative sets of answers from which the addressee is expected to choose from (Krifka 2008; Mycock 2006), there is a morphological distinction between questions that express exhaustive interpretation and narrow the expected response from the addressee to only one specific answer and nothing else as against questions that are open and can have a response that is A or B or something else. The semantic interpretation of a desired response, thus, influences the way information is packaged in a question in Kusaal. The question in (1a) can attract the response in (1b), where the new information is *suma* ‘groundnut’. *Suma*, ‘groundnut’ can be replaced by other alternatives such as *kawena*, ‘maize’, *mui* ‘rice’ or any other item. The question

¹ This paper is crafted from Abubakari (2018a), a PhD dissertation, with some modifications.

² I acknowledge comments and contributions from participants of the LFG 2024 conference and the reviewers and editors of this proceedings. Their suggestions have significantly enhanced the quality of this work.

in (2), on the other hand, specifically requires a response that has an exhaustive interpretation and singles out one item and nothing else.

- (1) a. Aduk da' bɔɔ?
 Aduk buy.PERF³ what
 'What did Aduk buy?'
- b. Aduk da' suma
 Aduk buy.PERF groundnut
 'Aduk bought groundnut.'
- (2) a. Aduk da' nɛ bɔɔ?
 Aduk buy.PERF FOC what
 'What (specifically) did Aduk buy?'
- b. Aduk da' nɛ suma
 Aduk buy.PERF FOC groundnut
 'It is groundnut that Aduk bought (nothing else).'

Thus, to distinguish between question type (1a) and type (2a), we refer to the former as non-exhaustive wh-question and the latter as exhaustive wh-question. Exhaustive wh-questions, here refer to wh-questions that are marked using overt morphological focus markers with a semantic effect of exhaustivity while non-exhaustive wh-questions are interrogative constructions that are unmarked for focus but are inherently focused and used for new discourse information. While non-exhaustive questions can imply alternatives (A but not B), exhaustivity questions refer to one item (A and not B and nothing else). The main objective of this work is to show the discourse distinction between exhaustive and non-exhaustive interrogative forms in Kusaal using the i(nformation)-structure of Lexical-Functional Grammar (LFG). Additionally, the paper explores the asymmetry between exhaustive wh-questions and non-exhaustive wh-questions and their corresponding answer pairs in Kusaal. The main research questions guiding this study include: (i) What are the morphosyntactic strategies for interrogative constructions in Kusaal? (ii) How does Kusaal distinguish between exhaustive wh-questions and non-exhaustive wh-questions? (iii) How can the i-structure representation of LFG capture the distinction between exhaustive wh-questions and non-exhaustive wh-questions?

Although quite some work exists in the literature on the grammar of Kusaal, less can be traced of any comprehensive study that looks at the discourse structure of interrogative sentences in the language and specifically on exhaustive and non-exhaustive wh-questions. More importantly, there is as yet no LFG analysis for the discourse distinctions between exhaustive wh-questions and non-exhaustive wh-questions in the Mabia languages. This study enriches the literature on interrogative structures in questions and expands our knowledge on subtypes of focus exhibited in this grammatical domain. Previous

³ Abbreviations used in this paper are as follows. CP: Complementizer phrase, NOM: Nominalized, COMP: Complementizer, NP: Noun Phrase, CONJ: Conjunction, PST: Past, COP: Copular, PERF: Perfective, DEF: Definite, PL: Plural, DP: Determiner phrase, Q: question marker, FOC: Focus, REL: Relativizer, FUT: Future, SG: Singular, HAB: Habitual, IPERF: Imperfective, DTYPE: discourse type, DFORM: discourse form, LOC: Locative, IP: Inflectional phrase, NEG: Negative.

studies on interrogative structures in Kusaal mainly focus on the basic characteristics of this grammatical concepts (Abubakari 2018a; Musah 2018:232-235; Eddyshaw 2019; Spratt and Spratt 1972: 83-87). They all agree that interrogative structure in Kusaal end with a low tone different from non-interrogative sentences and they also employ the use of interrogative words. Words in Kusaal come in long and short forms. The long forms end in vowels and the short forms which are argued to be derived from the long counterparts after the deletion of the final vowel. While the long forms are used in questions and negations because they are inherently emphatic, the short forms are used elsewhere (Abubakari 2018a; 2017). Musah (2018:232-235), for instance, discusses the relationship between polar questions and content questions in Kusaal highlighting that the former seeks a yes/no response whilst the latter uses question words. Spratt and Spratt (1972: 83-87), on their part, explain that interrogatives are marked using (i) intonation and (ii) interrogative question words that denote a query. They describe types of interrogatives as including “interrogatives, interrogative existential, interrogative imperative initiating, interrogative imperative non-initiating, interrogative conditional, and interrogative nominal”. Some of the data for this study is taken from Abubakari (2018a), who describes the relationship between “focused and non-focused wh-questions”. Since all types of questions are inherently focused and open up alternatives, the present discussion changes the nomenclature of “focused and non-focused wh-questions” to exhaustive and non-exhaustive wh-questions. It mainly focuses on the discourse distinction in interrogative constructions which are morphologically coded in the language. Readers are referred to Abubakari (2018a; 2022), which have extensive discussions on the grammar of questions in Kusaal. Abubakari (2018a, 2022) discusses the various types of interrogatives structures and their properties in the language: polar questions, alternative questions, content questions, among others. The work further discusses the constraints governing question formation among others. An extensive study on interrogative structures in a Mabia language is Issah (2013), who looks at the morphosyntactic processes involved in the formation of constituent interrogatives and the parallelism this shares with focus constructions in Dagbani. He observes that in the formation of constituent interrogatives in Dagbani, the interrogative word enters into a syntactic configuration with the focus particles *kà* or *n*. According to him, this syntactic configuration depends on the grammatical role of the argument that the interrogative word substitutes for. He adds that it involves putting the interrogative word clause initially and immediately following it with the appropriate focus marker. Based on the distribution of the interrogative word, Issah asserts that interrogative words and focused elements share morphosyntactic parallelism. Issah (2015) discusses polar questions, alternative questions, content questions among others. The structural features of question formation in Kusaal shows close similarities with the observations in Issah (2013; 2015).

After this introduction, section 2 gives a brief background information on Kusaal and its speakers. Section 3 discusses interrogative structures in Kusaal, while section 4 analyses wh-questions and alternative questions as focus diagnostic tools in Kusaal. Section 5 looks at exhaustive and non-exhaustive wh-questions with their corresponding answer pair in the language. Section 6 examines information structure, interrogative constructions and the LFG Framework. Section 7 analyses LFG representations of exhaustive wh-questions and non-exhaustive wh-questions and section 8 presents a conclusion.

2 The Kusaal language and its speakers

The Kusaal language is spoken by the people called the Kusaas (PL) or Kusaa (SG) (Abubakari 2018a). It belongs to the Central Mabilia subgroup of Mabilia languages (Bodomo 2020), previously referred to as the Western Oti-Volta subgroup of Gur languages (Westermann & Bryan 1952; Greenberg 1963; Bendor-Samuel 1971) of the Niger-Congo language family. The term Mabilia is a compound word which is composed of the two morphemes *ma* ‘mother’ and *bia* ‘child’. According to Bodomo (2020), the endonym Mabilia is more representative of the languages under this group since these two morphemes that combine to derive it can be traced in almost all the languages as compared to the term ‘Gur’, which is derived from the initial syllables of only three/four of the languages in this group: Gurenɛ, Gurma and Gurenɛ.

Kusaal is spoken in Ghana, Burkina Faso and Togo with 534, 681 speakers in Ghana as at the 2010 population and housing census (GSS 2012, 2016). In Ghana, Kusaal is spoken in the Upper East Region of the country with its main speaking areas including Bawku, Garu, Tempani, Pusiga, Zebilla, and Binduri. There are two dialects of Kusaal: Atoende and Agolle dialects. The data gathered for this work is from the Agolle dialect of Kusaal.)

3 Interrogative structures in Kusaal

Question words (Q-words) in Kusaal do not mark animacy. The only distinction is human/non-human which is also limited to the words: *anɔ'ɔn*, ‘who (sg)’, *anɔ'ɔnnama* ‘who’ (pl) used for human beings as against all the other words which are non-human. *Anɔ'ɔn* is also the only subject Q-word. It cannot be used as an object pronoun.

- (3) Anɔ'ɔn da da' yir la?
 who-SG PST buy house DEF
 ‘Who bought the house?’

Below are contextual illustrations of the use of the Q-words in Kusaal in their canonical in-situ position and in extraposed left periphery positions.

- (4) a. Ba sa di bɔɔ?
 3PL PST eat what
 ‘What did they eat yesterday?’
 b. Bɔ ka ba sa dɛɛ?
 what FOC 3PL PST eat
 ‘What did they eat yesterday?’
- (5) a. O di diib la bɔɔvɔɔ
 3SG eat.PERF food DEF why
 ‘S/he ate the food for what reason?’
 b. Bɔɔvɔɔ ka o di diib la?
 why FOC 3SG eat food DEF
 ‘Why did he eat the food?’

- (6)
- a. Buug la an ala?
goat DEF COP how.much
'How much is the goat?'
- b. #Ala an buug la?
how.much COP goat DEF
'How much is the goat?'
- c. Ba di'esid tʊmkʌŋa ligidi ala?
3PL charge.HAB work.this money how.much
'They charge how much for this work?'
- d. Ala ka ba di'esid tʊmkʌŋa ligidi?
how.much FOC 3PL charge.HAB work.this money
'They charge how much for this work?'
- (7)
- a. Fʊ sɔb gbaʊŋ la wɛla/wala?
2SG write book DEF how
'How did you write the book?'
- b. Wɛla/wala ka fʊ sɔb gbaʊŋ la?
how FOC 2SG write book DEF
'How did you write the book?'
- (8)
- a. Ba kul nɔɔrʊm bʊla?
3PL go.home times how
'How many times do they go home?'
- b. #Nɔɔrʊm bʊla ka ba kule?
time how FOC 3PL go.home
Intended: 'How many times do they go home?'

The constructions in (6b) and (8b), although understandable, are not natural in casual speech. These examples also show that almost all the Q-words in Kusaal can be used in-situ positions and can also be extraposed to the left periphery followed by the focus particle *ka*. In the environment of the copular *ala* 'how much' must always be used clause finally. This is the reason why (6b) is ungrammatical. As can be gleaned from the examples in (3) to (8), the canonical word order of Kusaal is SVO where the subject or object may be a definite or an indefinite NP. NPs take final determiners. Indirect or embedded questions also employ the clause initial wh-phrases as demonstrated in (9) (Abubakari 2018a: 194).

- (9)
- a. M bɔɔd ye m baŋ ye anɔ'ɔn ka
1SG want COMP 1SG know COMP who FOC
biig la sa bu.
child DEF PAST see
'I want to know who the child beat.'
- b. Aduk ya'amisidne bɔɔ daamid pua la.
Aduk doubt.IMPERF what worry.IMPERF woman DEF
'Aduk wonders what is wrong with the woman.'

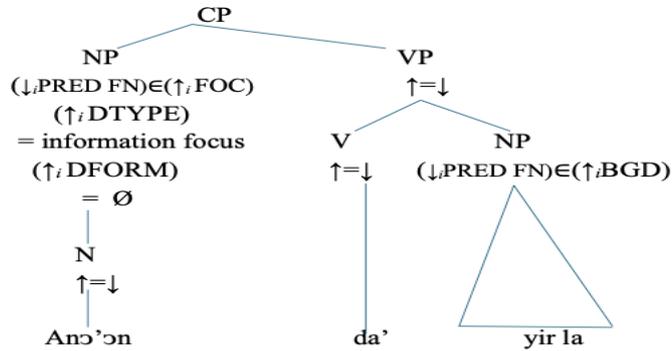
Several syntactic categories: verbs, nouns, adverbs among others can be replaced with *wh*-words in their respective canonical positions or be extraposed for discourse effect. When a verb is questioned, it is replaced by another verb: *mal*, ‘do’ and the Q-word, in that context, occurs sentence finally, as in (10d) and (11d):

- (10) a. Biig la gbsid dɔɔgin la
 child DEF sleep.IMPERF room.LOC DEF
 ‘The child is sleeping in the room.’
- b. Anɔ’ɔn gbsid dɔɔgin la?
 who sleep.IMPERF room.LOC DEF
 ‘Who is sleeping in the room?’
- c. Biig la gbsid yaane?
 child DEF sleep.IMPERF where
 ‘The child is sleeping where?’
- d. Biig la malne bɔ dɔɔginl a
 child DEF do.IMPERF what room.LOC DEF
 ‘What is the child doing in the room?’
- (11) a. Dau la da’ yir.
 man DEF buy.PERF house
 ‘The man bought a house’
- b. Anɔ’ɔn da’ yir la
 who buy.PERF house DEF
 ‘Who bought a house?’
- c. Dau la da’ bɔ
 man DEF buy.PERF what
 ‘The man bought what?’
- d. Dau la mal yir la bɔ
 man DEF do.PERF house DEF what
 ‘The man did what to the house?’

The c- and f-structure of the interrogative construction in (3), repeated here as (12), is shown below. A question phrase bears the discourse function of focus which has previously been modelled in terms of f-structure (Dalrymple 2001; Mycock 2006, among others) and recently at i-structure (Butt et al. 2016, Abubakari 2018a, b, among others). It occupies the syntactic “focus position”, SpecCP, rather than the canonical position associated with its grammatical function (Mycock 2006:202).

- (12) a. Anɔ’ɔn da da’ yir la?
 who-SG PST buy house DEF
 ‘Who bought the house?’

b. c-structure



c. f-structure

PRED	'da' <(↑SUB), (↑OBJ)>						
SUB PRON-INT	<table border="1"> <tr> <td>PRED</td> <td>'Ano'on'</td> </tr> <tr> <td>NTYPE</td> <td>Pronoun</td> </tr> <tr> <td>PRON TYPE</td> <td>Int, PERS 3, NUM 3, HUMAN +, CASE Neutral</td> </tr> </table>	PRED	'Ano'on'	NTYPE	Pronoun	PRON TYPE	Int, PERS 3, NUM 3, HUMAN +, CASE Neutral
PRED	'Ano'on'						
NTYPE	Pronoun						
PRON TYPE	Int, PERS 3, NUM 3, HUMAN +, CASE Neutral						
OBJ	<table border="1"> <tr> <td>PRED</td> <td>'yir'</td> </tr> <tr> <td>NUM</td> <td>sg</td> </tr> <tr> <td>DEF</td> <td>+</td> </tr> </table>	PRED	'yir'	NUM	sg	DEF	+
PRED	'yir'						
NUM	sg						
DEF	+						
TNS-ASP	<table border="1"> <tr> <td>MOOD</td> <td>indicative</td> </tr> <tr> <td>ASPECT</td> <td>PERF</td> </tr> <tr> <td>TENSE</td> <td>PAST</td> </tr> </table>	MOOD	indicative	ASPECT	PERF	TENSE	PAST
MOOD	indicative						
ASPECT	PERF						
TENSE	PAST						
CLAUSE TYPE	int						

d. i-structure

FOC	<table border="1"> <tr> <td>PRED-FN</td> <td>dau la</td> </tr> <tr> <td>DTYPE</td> <td>information focus</td> </tr> <tr> <td>DFORM</td> <td>∅, in-situ</td> </tr> </table>	PRED-FN	dau la	DTYPE	information focus	DFORM	∅, in-situ
PRED-FN	dau la						
DTYPE	information focus						
DFORM	∅, in-situ						
BGD	<table border="1"> <tr> <td>[PRED-FN</td> <td>di]</td> </tr> <tr> <td>[PRED-FN</td> <td>diib]</td> </tr> </table>	[PRED-FN	di]	[PRED-FN	diib]		
[PRED-FN	di]						
[PRED-FN	diib]						

Wh-words can be extraposed to the left-periphery, as is also common in several languages (Dayal 2016:3). Anytime a wh-word is moved to the left periphery, it is obligatorily followed by the focused particle *ka*.

- (13) a. Dau la da' bo?
 man DEF buy.PERF what
 'What did the man buy?'
- b. Bo ka dau la da'
 what FOC man DEF buy.PERF
 'What did the man buy?'

- c. Bɔ̃ ka dau la mal (nɛ) yir la?
 what FOC man DEF buy.PERF with house DEF
 ‘What did the man buy?’

Anytime a verb with an inanimate object is questioned, the said object NP must often be introduced using the morpheme *nɛ*⁴, which is glossed as ‘with’, as demonstrated in (10c) above. Without, *nɛ* ‘with/to’, *yir* ‘house’ will assume an animate connotation, which will render the utterance infelicitous. The animate object in (14b) does not require *nɛ* to precede it.

- (14) a. Dau la nwe buug la
 man DEF beat.PERF goat house
 ‘The man beat the goat.’
- b. Bɔ̃ ka dau la mal buug la
 what FOC man DEF do goat DEF
 ‘What did the man do to the goat?’

All grammatical categories can be moved to the left for discourse purposes. However, when a verb is moved, it gets nominalized, and a copy is left at the base position as in (15b) (Abubakari 2019).

- (15) a. Atibil kua'a pito.
 Atibil brew.PERF pito
 ‘Atibil brewed pito (a local drink).’
- b. Kua'ab kà Atibil kua'a pito.
 brew.NOM FOC Atibil brew.PERF pito
 ‘It is brewing that Atibil did of pito (as opposed to e.g. selling pito).’

It is important to add that *wh*-phrases that get extraposed to the left periphery are often non-subject constituents as in (13) and (14). Subject *wh*-phrases in Kusaal remain in-situ and do not attract the use of the subject focus marker *n* in the language. It is infelicitous to focus the *wh*-phrase in (16d) using the focused particle *n* (further discussion on this is found in § 5).

- (16) a. Aduk di diib la
 Aduk eat.PERF food DEF
 ‘Aduk ate the food.’
- b. Aduk n di diib la
 Aduk FOC eat.PERF food DEF
 ‘It is Aduk who ate the food.’
- c. Anɔ̃'ɔ̃ di diib la
 who eat.PERF food DEF
 ‘Who ate the food?’

⁴ This is a homophone with the in-situ non-subject focus particle *nɛ*. Depending on the context, it can also be interpreted as ‘for’ or ‘at’ among other interpretations.

- d. *Anɔ'ɔ n di diib la
 who FOC eat.PERF food DEF
 Lit. 'Who ate the food?' (Who specifically out of the people ate the
 food)

As one can see in Table (2), below, no focus particle occurs with a question word in subject position. However, a non-subject question word can take the focus particle *nɛ* in-situ and when extraposed it takes the particle *ka*. The option to take these particles come with an extra meaning of contrast and exhaustivity; the absence of which also goes without the particles.

Table (2): Pattern of co-occurrence of question-phrases with subject, non-subject focus particles

Focus particles and subject, non-subject question phrases		
	In-situ focus particle	Ex-situ focus particle
Subject wh-phrase	Null (ungrammatical to us <i>n</i>)	Not applicable
Non-subject wh-phrase	<i>nɛ</i>	<i>ka</i>

The in-situ focus particle precedes the NP or question phrase it focuses. In focusing a VP or an entire IP that expresses surprise, *nɛ* occurs clause finally as in (17a), which could be uttered in a context where, for instance, a respected man surprisingly steals a fowl.

- (17) a. Bɔ male?
 what happen
 'What is it/what has happened?'
- b. Dau la zu nɛ
 man DEF steal.PERF FOC
 'The man has stolen a fowl!'
- c. Dau la zu nɛ bɔɔ?
 man DEF steal.PERF FOC what
 'What did the man steal?'
- d. Dau la zu nɛ nua
 man DEF steal.PERF FOC fowl
 'The man stole a fowl.'

4 Wh-questions and alternative questions as focus diagnostic tools in Kusaal

The notion of focus forms part of the general framework of information structure which differentiates between *common ground management* as against *common ground-content*. Common ground is seen as the knowledge or information that is shared by interlocutors in the communicative context. (Chafe 1976, Krifka 2008, Féry & Krifka 2008 cf Zimmermann and Onea 2011: 3; Stalnaker 1973, 1974, 2002; Abubakari 2024). A focus construction, therefore, has two components: background and focus. While background refers

to the common ground knowledge, focus is the new information that is introduced in the communication context. The notion of focus is, therefore, a universal category of information structure which evokes alternatives out of which one is chosen (Rooth 1996, 1992; Zimmermann and Onea 2011; Abubakari 2018a, 2022).

- (18) a. Ba di diib la ya?
 3PL eat food DEF where
 ‘Where did they eat the food?’
- b. Ans: Ba di diib la da'an la.
 3PL eat food DEF market. LOC DEF
 ‘They ate the food in the market.’

The response in (18b) is felicitous as a response to the question in (18a). The *da'an la* 'the market' is new information which fills in the gap produced by the wh-part of the question. The focus constituent could have been any element in the following set of alternatives {market, hospital, school, home etc.} out of which one response is chosen.

4.1 Wh-question

The use of wh-questions has been argued to serve an incontestable approach for focus diagnostics. Zimmermann and Onea (2011) add that questions produce *bona fide* focused constituents in languages and establish the focus size of constituents (Zimmermann and Onea 2011; van der Wal 2016; Dik 1997, Rooth 1992, Lambrecht 1994, Beaver and Clark 2008, cf. Abubakari 2024 among others). Zimmermann and Onea (2011) further explain that in alternative semantics, the wh-part of the question, X, creates the open slot where several alternatives compete for the answer which will substitute X (i.e. Who ate the food? where who is X). This is captured as follows: “a focus constituent X expresses new-information if α introduces an element of A into the common ground, and if the alternatives to α have not been explicitly introduced in the preceding discourse.” (Zimmermann and Onea 2011:1663). Using the minimal pair below, the constituent that introduces the question word *bo* 'what' introduces the focus constituent which is the new information in the discourse. The focus particle preceded the focused NP or question phrase which receives the contrastive interpretation.

- (19) Q: Aduk di (nɛ) bo?
 Aduk eat FOC what
 ‘Aduk ate what?’
- a. [mui]_F (Fragmented answer)
 rice
 ‘rice’
- b. Aduk di [mui]_F (Non-exhaustive focus)
 Aduk eat rice
 ‘Aduk ate RICE.’

c. Aduk di nε [mui]_F (Exhaustive focus)
 Aduk eat FOC rice
 ‘Aduk ate RICE.’

Although the responses in (19a, b, c) have *mui* ‘rice’ as the new information, and can all be used as responses, (19c) will be the most felicitous response if the focus particle is used in the question in (19) because the question has the focus particle which requires the answer to be exhaustive by excluding all other alternatives. Thus, non-marked wh-questions in Kusaal, though inherently focused, lack semantic contrast and exhaustivity. Non-marked wh-questions are always in-situ in Kusaal.

4.2 Alternative questions

Alternative questions come in the form: Did the children eat rice or beans? (Rooth 1996; van der Wal 2016:9; Zimmermann and Onea 2011:1663; Abubakari 2024). The answer to this produces the type of focus called selective focus (Dik 1997), which is further elaborated in Zimmermann and Onea (2011:1663) as follows: ‘A focus constituent X is used selectively if α introduces an element of A into the common ground, and α is chosen from a restricted subset of A the members of which have been explicitly mentioned in the preceding context’. The examples below serve as illustrations.

(20) a. Biig la gbidid nε bεε o
 child DEF sleep.IMPERF FOC or 3SG
 kasid nε?
 cry.IMPERF FOC
 ‘Is the child sleeping or s/he is crying?’

Ans.: b. Biig la gbidid nε.
 child DEF sleep.IMPERF FOC
 ‘The child IS SLEEPING/ It is sleeping that the child is doing’.

Alternative questions naturally come with the focused particle *né*, which may be with each clause or occur at the end of the second clause (20a). The clauses are exhaustively marked and the response which chooses one alternative is equally marked for exhaustivity. The restricted response in alternative questions makes the response selective against a second alternative that was provided.

5 Exhaustive wh-questions and non- exhaustive wh-questions with their corresponding answer pairs in Kusaal

Wh-phrases in Kusaal can be grouped into two: exhaustive wh-phrases and non-exhaustive wh-phrases. The exhaustive status of a wh-phrase is directly linked to the overt morphological focus marking of the constituent in its associating gap. Unlike subject wh-phrases, non-subject wh-phrases can be morphologically marked for focused in-situ or ex-situ. All ex-situ wh-phrases are obligatorily focused and followed by the particle *ka*. As a consequence, answers to such questions must obligatorily be accompanied by the focused

particle whilst it is often illogical and infelicitous to respond to non-exhaustive wh-question with the focus particle in a corresponding answer pair. The constructions with the *ka* particle are typical examples of cleft constructions which can be in the form of both it-cleft and wh-cleft. Clefts are associated with emphatic focus interpretations which further gives credence to the *ka* particle as a focus marker. Although studies also reveal that the particle *ka* may be ‘weakly’ exhaustive compared to *ne*, the interpretation of contrast and exhaustivity is present perhaps partly induced by the structural configuration of the dislocation and by the particle *ka* which is obligatory in this instance (Abubakari 2024).

Subject wh-questions, on the other hand, do not impose such restrictions on their answers. This can be linked to the fact that a subject wh-phrase cannot be followed by the focus particle. Answers to such questions can either be overtly marked for focus or not depending on the discourse context. The fronting of the wh-phrase to the left periphery is not entirely employed as a question strategy but rather as an information structure strategy (Aboh 2007). From the utterance in (21a) below, the following exhaustive questions can be derived where (21b) has a fronted Q-word followed by the focused particle *ka*, while (21c) has the Q-word in-situ preceded by the focus particle *ne*. The answers in (21d, e) are respective responses to (21b, c). They, (21d, e) also use the focus particles, after the fronted focused constituent in (21d) and before the focused constituent in (21e).

- (21) a. Ayipɔk sa dug diib tisi
 Ayipɔk PST cook.PERF food give.PERF
 biig la.
 children DEF
 ‘Ayipɔk prepared food and gave it to the children.’
- b. Bɔ ka Ayipɔk sa dug tisi
 what FOC Ayipɔk PST cook.PERF give.PERF
 biig la?
 children DEF
 ‘What did Ayipɔk cook and give to the children?’
- c. Ayipɔk sa dug ne bɔ tisi
 Ayipɔk PST cook.PERF FOC what give.PERF
 biig la?
 children DEF
 ‘What did Ayipɔk cook and give to the children?’
- d. Ans. Diib ka Ayipɔk dug tisi
 food FOC Ayipɔk cook.PERF give.PERF
 biig la.
 children DEF
 ‘It is food that Ayipɔk cooked and gave to the children.’
- e. Ayipɔk sa dug ne diib tisi
 Ayipɔk PST cook.PERF FOC food give.PERF
 biig la.
 children DEF
 ‘It is food that Ayipɔk cooked and gave to the children.’

The question in (22a) is non-exhaustive and the corresponding response in (22b) is also non-exhaustive. Although it is grammatically not wrong to use the exhaustive responses in (22c-d) to answer the question in (22a), it is semantically weird to do so.

- (22) a. Ayipɔk sa dug bɔ tisi
 Ayipɔk PST cook.PERF what give.PERF
 biig la?
 children DEF
 ‘What did Ayipɔk cook and give to the children?’
- b. Ayipɔk sa dug mui tisi
 Ayipɔk PST cook.PERF rice give.PERF
 biig la
 children DEF
 ‘Ayipɔk cooked rice and gave it to the children.’
- c. Mui ka Ayipɔk sa dug diib
 rice FOC Ayipɔk PST cook.PERF food
 tisi?
 give.PERF
 ‘It is rice that Ayipɔk cook and gave to the child?’
- d. Ayipɔk sa dug nɛ mui tisi
 Ayipɔk PST cook.PERF FOC rice give.PERF
 biig la
 child DEF
 ‘It is rice that Ayipɔk cook and gave to the child?’

The examples in (23) are further illustrations that employ a different Q-word. The questions in (23a-b) use the ex-situ focus particle *ka* and the in-situ non-subject focus particle, *nɛ*, respectively. The responses in (23c-d) follow the same structure.

- (23) a. Bɔbɔŋ ka bʊʊg la ɔnb wʊsa?
 what FOC goat DEF chew all
 ‘What did the goat chew all of?’
- b. Bʊʊg la sa ɔnb nɛ bɔbɔŋ wʊsa?
 goat DEF PST chew FOC what all
 ‘What did the goat chew all of?’
- c. Ans. Vaad la ka bʊʊg la sa
 leaves DEF FOC goat DEF PST
 ɔnb wʊsa.
 chew.PERF all
 ‘It is the leaves that the goat chewed all of.’
- d. Bʊʊg la sa ɔnb nɛ vaad
 goat DEF PST chew.PERF FOC leaves
 la wʊsa
 DEF all
 ‘It is the leaves that the goat chewed all of.’

The examples in (24a-b), however, are non-exhaustive in both the question-and-answer pair.

- (24) a. Bʊʊg la sa ɔnb bɔbʊŋ
 goat DEF PST chew.PERF what
 wʊsa?
 all
 ‘What did the goat chew all of?’
 b. Ans. Bʊʊg la sa ɔnb vaad la wʊsa.
 goat DEF PST chew.PERF leaves DEF all
 ‘The goat chewed all of the leaves.’

Subject *wh*-phrases in the questions in (25a) and (26a) do not occur with the in-situ subject focus particle *n* but answers to such questions may either express new information or exhaustive focus without or with a focus particle respectively as in (25d, e) and (26c, d). Abubakari and Issah (2020:602) and other scholars (Hiraiwa 2010, Erlewine 2012) assume the ban can also be a case of syntactic haplology, a phonological phenomenon which bans spell-out of sequential homophonous items, thus, the segment final /n/ in *anɔ'ɔn* ‘who’ bans the occurrence of the focus particle *n* from occurring immediately after it or anywhere else in the utterance.

- (25) a. Anɔ'ɔn sa dug diib tisi
 who PST cook.PERF food give.PERF
 biig la?
 children DEF
 ‘Who cooked food and gave to the children?’
 b. *Anɔ'ɔn n sa dug diib tisi
 who FOC PST cook.PERF food give.PERF
 biig la?
 children DEF
 Lit.: ‘Who cooked food and gave to the children?’
 c. *Anɔ'ɔn sa n dug diib tisi
 who PST FOC cook.PERF food give.PERF
 biig la?
 children DEF
 ‘Who cooked food and gave to the children?’
 d. Ayipɔk sa dug diib tisi
 Ayipɔk PST cook.PERF food give.PERF
 biig la
 children DEF
 ‘Ayipɔk prepared food and gave it to the children.’
 e. Ayipɔk n̄ sa dug diib tisi
 Ayipɔk FOC PRT cook.PERF food give.PERF
 biig la
 children DEF
 ‘It is Ayipɔk who prepared the food and gave it to the children.’

- (26) a. Bɔbɔŋ sa ɔnb vaar la wɔsa?
 what PST chew.PERF leaves DEF all
 ‘What chewed all the leaves?’
- b. *Bɔbɔŋ n sa ɔnb vaar la wɔsa?
 what FOC PST chew.PERF leaves DEF all
 Lit.: ‘What chewed all the leaves?’
- c. Bɔɔg la sa ɔnb vaad la wɔsa.
 goat DEF PST chew.PERF leaves DEF all
 ‘The goat chewed all the leaves.’
- d. Bɔɔg la n sa ɔnb vaad la wɔsa.
 goat DEF FOC PST chew.PERF. leaves DEF all
 ‘It is the goat that chewed all the leaves.’

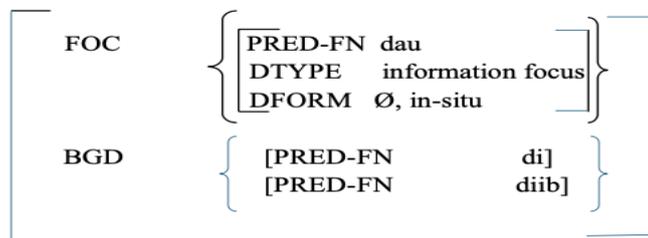
It is important to indicate that the subject focus particle must occur immediately after the focused subject constituent as in (25e) and (26d). No other constituent can occur between the two. Thus, one will ordinarily expect a Q-word which functions as a subject to equally have the subject focus particle occurring after it. However, this is ungrammatical as demonstrated in (25b) and (26b). It is also worthy of note that no word can occur between a Q-word as a subject and be followed by the focus particle as in (25c).

With reference to non-subject arguments in the examples above, a dichotomy can be established between exhaustive wh-questions and non-exhaustive wh-question. Exhaustive questions require the use of the focused particles in their respective answers whilst non-exhaustive wh-question requires their respective answers to be morphologically null with a corresponding non-exhaustive semantic implication. Subject wh-questions are open to answers expressing information focus or exhaustive focus. The fact that an exhaustive wh-question requires the target constituent in its corresponding answer pair to be equally exhaustive while a non-exhaustive wh-question requires its target constituent in the answer to be non-exhaustive indicates that the discourse status of a wh-question determines the discourse status of its target constituent in its corresponding answer pair. Similar observations are made in languages like Lele (Frajzyngier 2001:284/86, Amharic (Drubig & Schaffar 2001 among others) Gungbe (Aboh 2007:305) (all cf Aboh 2007:302-306).

6 Information structure, interrogative constructions and the LFG Framework

Several studies have been conducted on the architectural representation of discourse information in the i-structure of LFG (King 1997; Mycock 2006; Mycock and Lowe 2013; Dalrymple and Nikolaeva 2011; Butt et al. 2016; Butt 2014; Butt and King 1996; Marfo and Bodomo 2004, among others). Additionally, studies on wh-phrases within the LFG framework have received significant attention with recent contributions including Butt and Biezma (2022), Butt et al. (2017), Butt et al (2016), and Mycock (2006). The current study adopts its architectural representations of the c-structure, the f-structure and the i-structure of interrogative constructions in Kusaal mainly from these

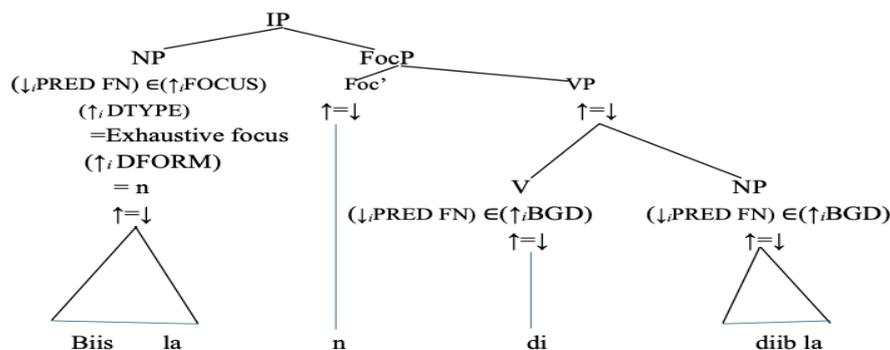
d. i-structure



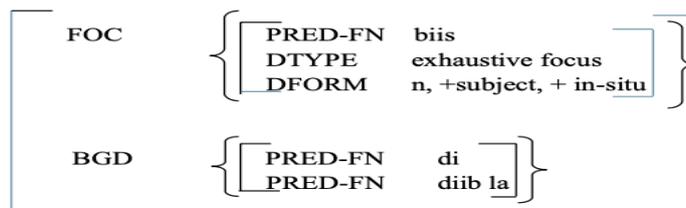
In the response in (27b), *dau la* ‘the man’, which is also captured in the c-structure in (27c) is new information focus. It is mapped to the i-structure via correspondence function i . The i subscript on the annotation shows that the information in the c-structure is projected to the i-structure. In the i-structure, (27d), as is also the case in subsequent i-structures, the values of focus and background are sets represented in the curly brackets which can have multiple instances (Butt et al. 2016). Each of these sets contains their respective PRED-FN (Predicate function) which identifies the roles of the elements as either focus or background. The DTYPE (discourse type: information focus, exhaustive focus) and the discourse form (\emptyset , n , $n\epsilon$, ka) are also provided via c-structure annotations.

- (28) a. Azumah: Ayei, biis la n di diib la.
 no children DEF FOC eat food DEF
 ‘It is the children that ate the food.’

b. C-structure



c. I-structure



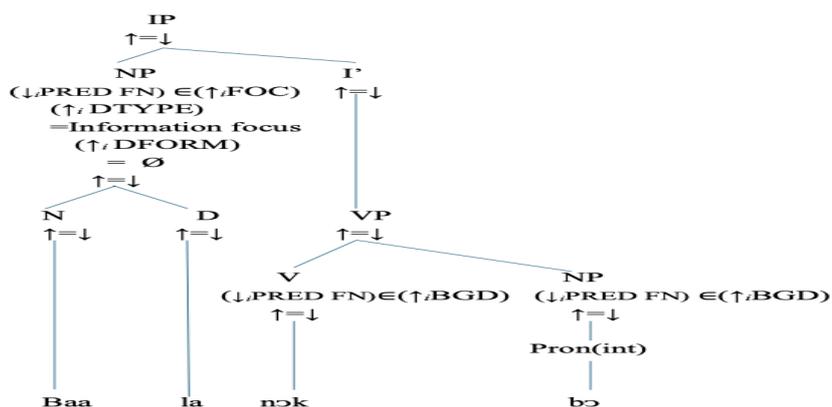
With this background, this study leverages on the proposal in Abubakari (2018a, b; Butt et al. (2016)) among others to argue for a clear distinction between exhaustive and non-exhaustive wh-questions in Kusaal. It intends to establish that the discourse information in these two types of constructions is different.

7 LFG representation of exhaustive wh-questions and non-exhaustive wh-questions

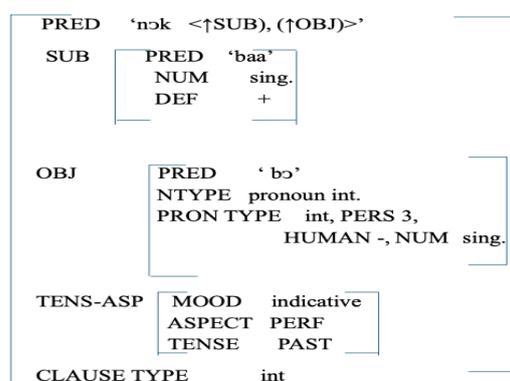
Having discussed the various realisations of wh-questions in discourse information packaging in Kusaal, this section shows the distinction between these two forms in the c-structure and i-structure architectures of LFG. It intends to illustrate that the c-structures of these two constructions are different and the same information when transferred into their i-structures are equally distinct. Example (29a) is marked for information focus, while (29b, c) are marked for exhaustive focus.

- (29) a. Baa la nɔk bɔ?
 dog DEF take what?
 ‘The dog took what?’

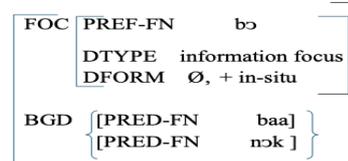
b. C-structure



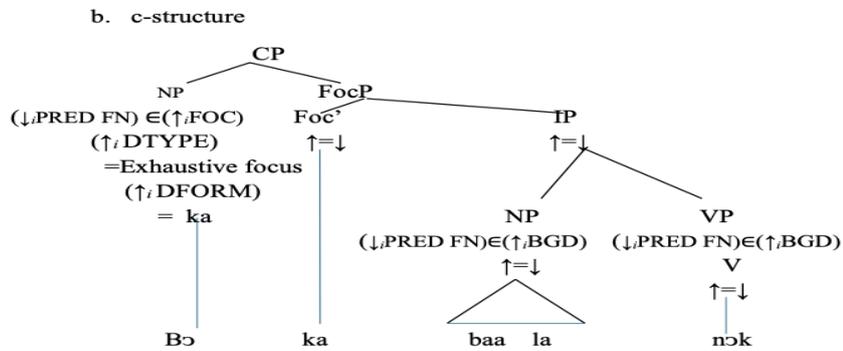
c. F-structure



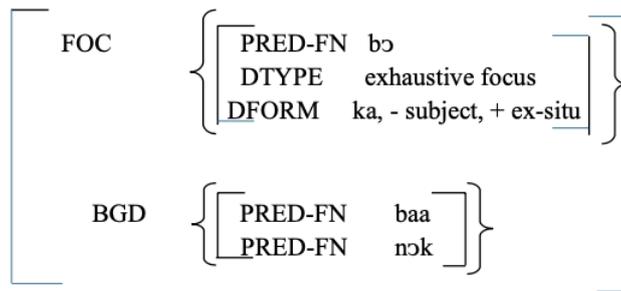
d. I-structure



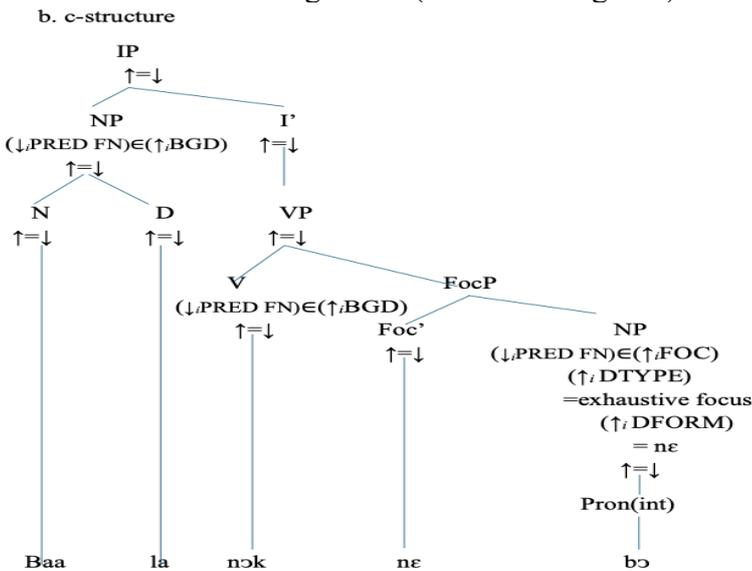
- (30) a. Bɔ ka baa la nɔk?
 what FOC dog DEF take
 ‘WHAT did the dog take?’ (X and nothing else)

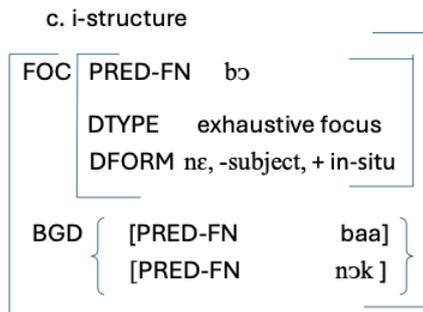


c. i-structure



- (31) a. Baa la nɔk nɛ bɔ?
 goat DEF take FOC what
 ‘What did the dog take?’ (X and nothing else)





While the f-structures of all three sentences in (29a), (30a) and (31a), are the same and represented in (29c), their c-structures syntactically differ due to the presence or otherwise of the discourse particles. The discourse information in the c-structures in (29b) (30b) and (31b) correspond with the information in the i-structures in (29d), (30c) and (31c) via the correspondence function, *i*, respectively.

8 Conclusion

This study has examined the intricate relationship between interrogative constructions and discourse marking in Kusaal. It has elaborated on the complex system of morphosyntactic and semantic difference in encoding different types of focus in interrogative structures in the language.

The findings delineate two types of interrogative constructions in Kusaal: exhaustive wh-questions and non-exhaustive wh-questions. This dichotomy is observed morphologically. While the particles *ka* and *nɛ* are used in exhaustive wh-questions, they are absent in their non-exhaustive counterparts. Additionally, the study has discussed the asymmetry between subject and non-subject wh-questions revealing that while non-subjects maintain distinctions in both questions and their corresponding answer pairs, subject wh-questions do not.

LFG is used to demonstrate the formal representation of exhaustive wh-questions and non-exhaustive wh-questions in the c-structure, f-structure and i-structures. The introduction of DTYPE and DFORM values in the i-structure enhances the inclusion of finer grained details of the focus constituent.

References

- Aboh, Enoch O. 2007. Focused versus non-focus wh-phrases. In W. Bisang, H.H. Hock and W. Winter (eds.), *Trends in Linguistics Studies and Monographs* (191)287-314. Berlin: Mouton de Gruyter.
- Abubakari, Hasiyatu. 2024. Focus constructions in a Mabia language of West Africa: Kusaal. Manuscript. IAS, University of Ghana.
- Abubakari, Hasiyatu. 2022. *A Core Grammar of Kusaal*. Manuscript. Institute of African Studies, University of Ghana
- Abubakari, Hasiyatu., & Issah, A. Samuel. 2020. The Syntax of Strong and Weak Pronouns in Dagbani and Kusaal. *Studia Linguistica: A Journal of General Linguistics* 74(3): 1-29.
- Abubakari, Hasiyatu. 2019. Contrastive focus particles in Kusaal. In: Emily

- Clem, Peter Jenks and Hannah Sande (eds.), *Theory and description in African Linguistics: Selected papers from the 47th Annual Conference on African Linguistics*, Berlin: Language Science Press, 325-347.
- Abubakari, Hasiyatu. 2018a. *Aspects of Kusaal Grammar: The Syntax-Information Structure Interface*. PhD thesis, University of Vienna.
- Abubakari, Hasiyatu. 2018b. Information Structure and the Lexical-Functional Grammar Framework. In Butt, Miriam, & King, Tracy Holloway (Eds.): *Proceedings of the LFG'18 Conference*. Stanford: CSLI Publications, 325–345.
- Abubakari, Hasiyatu. 2017. Ideophones in Kusaal, *Journal of West African Languages* 44(1): 42-57.
- Beaver, David and Brady Clark. 2008. *Sense and Sensitivity: How Focus Determines Meaning*. Wiley-Blackwell, Oxford.
- Bendor-Samuel, J. 1971. Niger-Congo, Gur. In T. Sebeok (ed.), *Current trends in linguistics*, vol. 7. The Hague: Mouton, 141–178.
- Bodomo, Adams. 2020. Mabilia: Its etymological genesis, geographical spread, and some salient genealogical features. In Adams, Bodomo, Hasiyatu, Abubakari and Samuel A. Issah (eds.). *Handbook of Mabilia Languages of West Africa*. Glienicke: Galda Verlag.
- Butt, Miriam. 2014. Questions and Information Structure in Urdu/Hindi. In Miriam Butt and Tracy Holloway King (eds.), *Proceedings of LFG14 Conference*. CSLI Publications, 158-178.
- Butt, Miriam., & Tracy, Holloway King. 1996. Structural Topic and Focus without Movement. In *Proceedings of the First Annual LFG Conference*. Stanford: CSLI Publications.
- Butt, Miriam., & Maria, Biezma. 2022. The syntax and interpretation of Urdu/Hindi polar *kya*. In Miriam Butt, Jamie Y. Findlay and Ida Toivonen (eds.) *Proceedings of the LFG'22 Conference*. Stanford: CSLI Publications, 79-100. lfg-proceedings.org.
- Butt, Miriam, Tina Bögel and Farhat Jabeen. 2017. Polar *kya* and the Prosody-Syntax-Pragmatics Interface. In M. Butt and T.H. King (eds.) *Proceedings of the LFG'17 Conference*. Stanford:CSLI Publications, 125-145.
- Butt, Miriam, Farhat Jabeen and Tina Bögel. 2016. Verb Cluster Internal Wh-Phrases in Urdu: Prosody, Syntax and Semantics/Pragmatics. *Linguistic Analysis* 40(3&4):445-487.
- Caesar, O. Regina. 2016. An Analysis of Interrogative Constructions in Dangme. *Journal of Literature, Language and Linguistics* 21: 35-49.
- Chafe, Wallace. 1976. Givenness, Contrastiveness, Definiteness, Subjects, Topics, and Point of View. In C. Li (ed.), *Subject and Topic*. New York: Academic Press. 25-55.
- Dalrymple, Mary and Irina Nikolaeva. 2011. *Objects and Information Structure*. Cambridge: Cambridge University Press.
- Dalrymple, Mary. 2001. *Syntax and Semantics in Lexical Functional Grammar* (vol. 34). San Diego: Academic Press.
- Dayal, Veneeta. 2016. *Questions*. Oxford: Oxford University Press.
- Dik, Simon. 1997. *The theory of functional grammar I. The Structure of the Clause*. Vol. 1: Functional Grammar Series 20. Berlin: Mouton de Gruyter.
- Drubig, Hans Bernhard and Wolfram Schaffar. 2001. Focus Constructions. In *Language Typology and Language Universals*, Martin Haspelmath,

- Ekkehard König, Wulf Oesterreicher, and Wolfgang Raible (eds.), Berlin: Mouton. 1079-1104.
- É. Kiss, Katalin. 1998. Identificational Focus versus Information Focus. *Language* 74:245-273.
- Eddyshaw, David. 2019. A Grammar of Kusaal: Agolle Dialect. Available online at https://www.academia.edu/30678520/A_grammar_of_Kusaal
- Erlewine, M. Yoshitaka. 2012. Structurally distant haplology. *Snippets* 26:7-8.
- Féry, Caroline and Manfred Krifka. 2008. Information structure. Notional distinctions, ways of expression. In Piet van Sterkenburg (ed.), *Unity and diversity of languages*, Amsterdam: John Benjamins, 123-136.
- Frajzyngier, Zygmunt. 2001. *A Grammar of Lele*. Stanford Monographs in African Languages, Stanford: CSLI Publications.
- Ghana Statistical Service. 2016. *2010 Population and Housing Census: Population of Kusaas by district*. GSS; Accra, Ghana.
- Ghana Statistical Service. 2012. *2010 Population and Housing Census: Summary of Final Results*. GSS; Accra, Ghana
- Greenberg, Joseph. 1963. The Languages of Africa. Indiana University Research C5.3.
- Hiraiwa, Ken. 2010. The syntactic OCP. Proceedings of the 11th Tokyo Conference on Psycholinguistics.
- Issah, Samuel A. 2015. An analysis of interrogative constructions in Dagbani. *Journal of West African languages*, XLII.1: 45-63.
- Issah, Samuel A. 2013. Focus and constituent question formation in Dagbani. *Ghana Journal of Linguistics* 2(1) 39-62.
- King, Tracy Holloway. 1997. Focus domains and information-structure. In Miriam Butt and Tracy Holloway King (eds). *Proceedings of the LFG97 Conference*. Stanford: CSLI Publications.
- Krifka, Manfred. 2008. Basic Notions of Information Structure. *Acta Linguistica Hungarica* 55: 243-276.
- König, Ekkehard and Peter Siemund. 2007. Speech Act Distinction in Grammar. In Timothy Shopen (ed.), *Language Typology and Syntactic Description*. Cambridge: Cambridge University Press, 276-324.
- Lambrecht, Knud. 1994. *Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents*. Cambridge: Cambridge University Press.
- Marfo, Charles and Adams, Bodomo. 2004. Information Processing in Akan Question-Word Fronting and Focus Constructions. In Miriam Butt and Tracy Holloway King (eds). *Proceedings of the LFG04 Conference*. Stanford: CSLI Publications, 353-369.
- Musah, Anthony A. 2018. *A grammar of Kusaal: A Mabia (Gur) language of northern Ghana*. Berlin: Peter Lang
- Mycock, Louise. 2006. *The Typology of Constituent Questions: A Lexical-Functional Grammar Analysis of wh-questions*. PhD. Thesis, University of Manchester.
- Mycock, Louise and John, J. Lowe. 2013. The Prosodic Marking of Discourse Functions. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG13 Conference*. Stanford: CSLI Publications, 440-460.
- Rooth, Mats. 1996. Focus. In Shalom Leppin (eds.), *The Handbook of contemporary semantic theory*, 271-297. Oxford: Blackwell.
- Rooth, Mats. 1992. A Theory of Focus Interpretations. *Natural Language Semantics* 1: 75-116.

- Spratt, David and Nancy Spratt. 1972. Kusaal Syntax. In *Collected language notes* (13). University of Ghana – Legon, Institute of African Studies.
- Stalnaker, Robert L. 1973. Presuppositions. *Journal of Philosophical Logic* 2: 447-457.
- Stalnaker, Robert L. 1974. Pragmatic Presuppositions. In Milton K. Munitz and Peter K. Unger (eds.), *Semantics and Philosophy*. New York: New York University Press, 197– 213.
- Stalnaker, L. Robert. 2002. Common Ground, *Linguistics and Philosophy* 25(5-6): 701-721.
- van der Wal, Jenneke. 2016. Diagnosing focus. *Studies in Language* 40(2): 259-301.
- Westermann, Diedrich. & Bryan M. A. 1952. Languages of West Africa: *Handbook of African Languages*, Vol 2. Oxford: Oxford University Press.
- Zimmermann, Malte & Onea, Edgar. 2011. Focus Marking und Focus Interpretation. *Lingua* 121(11): 1651–1670.