

Focus as a key to the grammar of Sandawe

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Abstract. The linguistic realisation of focus can be syntactic, morphological and phonological. Those languages which display all three types of focus marking are of particular current theoretical interest for research into the nature of interface levels in generative grammar. One such language is Sandawe, a Khoisan language spoken in Tanzania.

The research presented in this paper is concerned with the limitations on sentence form grammaticality in Sandawe and the relationship between sentence form and focus. Sentence form grammaticality was investigated by means of grammaticality judgment tasks which were undertaken with a native speaker of Sandawe.¹ Data on the relationship between sentence form and focus was collected using a sentence anagram task, a picture description task and a translation task.

The results of the data elicitation reveal that great variation in sentence form is possible in Sandawe. The linguistic levels involved in this variation, and the limitations on it, differ according to sentence type. In realis sentences, the variation and limitations are syntactic and morphological, whereas in irrealis sentences, they are syntactic and phonological. Sentence form in both the realis and the irrealis exhibits a relationship with focus. Underneath the surface differences between the two sentence types, a striking parallelism in this relationship is evident.

A minimalist PF² scrambling account (Kidwai, 1999, 2000) is adopted to handle the Sandawe focusing phenomena. It is argued that the immediately preverbal linear focus position in Sandawe is only activated by argument movement. Apparently arbitrary grammatical restrictions are explained as a reflex of this process. The different focusing mechanisms in the language are analysed as motivated by the requirements of the [PF[+Interpretable]] feature [+focus], which may be licensed by PF movement or in Morphology or Phonology. Focusing in Sandawe is therefore shown to both explain grammaticality restrictions and be motivated by core grammatical principles. In this way, it is argued that the grammar of focus in Sandawe is a key to the grammar as a whole.

¹ The data discussed in this paper was collected during a research trip to Tanzania, from June to September 2000. I am grateful to the Tanzania Commission for Science and Technology for the permission to collect the data (permit no. 2000-229-NA-98-132). My main language informant during this time was Nestori Michaeli of Magambua, Usandawe. This paper represents a selection of the findings from my unpublished PhD thesis, 'A grammar of focus in Sandawe', completed in 2002 at the University of Reading, England.

² PF (Phonetic Form) is a representation of the surface properties of the sentence, whereas LF (Logical Form) is a representation of the logico-semantic properties of the sentence. See Chomsky (1995) for a detailed consideration of the properties of PF and LF and their interaction in grammar.

1. The Sandawe language

1.1 Geographical and linguistic context

The Sandawe language is spoken in the Kondoa district of Tanzania. It is regarded as a Khoisan language by the majority of scholars, although the issue of its classification remains a contentious one for some (see, for example, the discussion contained in Sands, 1995). The most recent published suggestions for the current number of Sandawe speakers put the figure at between 70,000 and 90,000 (Wright et al., 1995: 1; Traill 1994: 1843). However, a figure of between 30,000 and 50,000 may be more accurate (Daniel Hunziker, personal communication). Traill (1994) estimates that there are 200,000 Khoisan language speakers in Southern Africa in total, with the Sandawe and 400 Hadza speakers in Tanzania being the only Khoisan language populations outside this area. Sandawe is therefore clearly a significant representative of the Khoisan language family in numerical terms. Whilst there are no other Khoisan languages surrounding Sandawe, there can be found representatives from Greenberg's (1955) other three main language families, such as Burunge and Iraqw (Afro-Asiatic), Nyaturu and Gogo (Niger-Congo) and Datoga (Nilo-Saharan), as shown on the map below:³

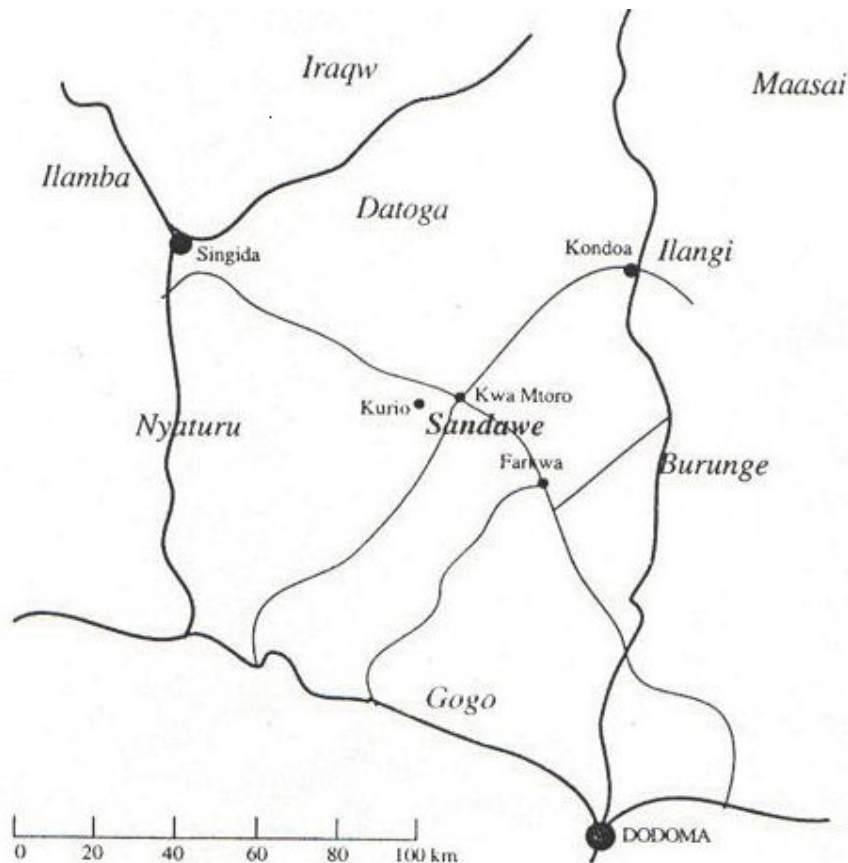


Fig. 1 Linguistic neighbours of Sandawe, from Wright et al. (1995: 2)

³ The lines represent major and minor roads in the area.

Most Sandawe also speak Swahili to a level which allows basic conversation with neighbouring peoples. Swahili competency depends partly on geographical location, with the Sandawe living in more remote areas being less likely to know Swahili. Perhaps up to 10% of Sandawe do not understand even basic Swahili (Daniel Hunziker, personal communication).

1.2 Some phonological and grammatical preliminaries

Throughout this paper Sandawe examples are given according to the following transcription system:⁴

Table 1 Pulmonic and glottalic consonants

	Labio-dental	Bilabial	Dental-alveolar	Post-alveolar	Alveolar lateral	Palatal	Velar ⁵	Glottal
<i>Voiceless stop</i>		p	t	tʃ	tl		k	ʔ
<i>Glottalised stop</i>			tsʰ		tlʰ		kʰ	
<i>Aspirated stop</i>		p ^h	t ^h	tʃ ^h			k ^h	
<i>Voiced stop</i>		b	d	dʒ	dl		g	
<i>Nasal stop</i>		m	n				ŋ	
<i>Fricative</i>	f		s		ɬ		x	h
<i>Approximant</i>			r		l	j	w	

Table 2 Velaric consonants

	Dental	Post-alveolar	Alveolar lateral
<i>Plain</i>		!	
<i>Glottalised</i>	ʰ	!ʰ	ʰ
<i>Aspirated</i>	^h	! ^h	^h
<i>Nasalised</i>	ⁿ	ⁿ !	ⁿ
<i>Voiced</i>	^g	^g !	^g

Table 3 Vowels

	High, front	High, back	Mid, front	Mid, back	Mid, low
<i>Oral</i>	i, i:	u, u:	e, e:	o, o:	a, a:
<i>Nasal⁶</i>	ĩ:	ũ:	ẽ:	õ:	ã:
<i>Voiceless</i>	ᵢ̥	ᵘ̥			

⁴ I am indebted to Daniel and Elisabeth Hunziker of SIL International for access to their preliminary phonological analysis of Sandawe (Hunziker and Hunziker, in preparation).

⁵ The labio-velar approximant /w/ is shown in the velar column for reasons of space.

⁶ Nasal vowels are phonologically long vowels, but may surface as short vowels (see Elderkin, 1989: 62; Hunziker and Hunziker, in preparation).

The following tone markings are used:

á	high
à	low
ǎ	rising
â	falling
`	floating low tone

In Sandawe, constituents may be suffixed with a morpheme indicating person, gender and number. This *PGN morpheme* (Elderkin, 1986: 133, after Hagman, 1977: 41 for Nama) may agree in person, gender and number with the constituent to which it is suffixed or it may reflect the PGN status of another constituent, such as the subject of a sentence. The table below shows how PGNs are used in agreement with the subject of a sentence to mark that sentence as either affirmative or negative, and with a past, present or future meaning⁷:

Table 4 PGN morpheme use in different sentence types⁸

	Affirmative		Negative	
	Past/present	Future	Past	Present/future
1sg.	s(ì)	` - s(ì)	tʃ ^h ì - sé	` - s(ì) - ts'é
2sg.	ì	` - pò	tʃ ^h ì - pó	` - pò - ts'é
3m.sg.	à	` - ì	tʃ ^h ì - é:	` - ì - ts'é
3f.sg.	sà	` - sù	tʃ ^h ì - sú	` - sù - ts'é
1pl.	ò	` - sũ:	tʃ ^h ì - sũ:	` - sũ: - ts'é
2pl.	è	` - sĩ:	tʃ ^h ì - sĩ:	` - sĩ: - ts'é
3pl.	?à?	` - sò	tʃ ^h ì - só	` - sò - ts'é

Three sets of PGN morphemes can be seen in these paradigms. One set is used in affirmative sentences expressing past or present time, another is used in the negative past form and a third is used in both the affirmative future and negative present/future forms. The set of morphemes in the first column stands apart from the other two types for two reasons. Firstly, as will be illustrated below, this set of morphemes may be suffixed to constituents other than the verb, whereas the other two sets may only be suffixed to the verb when they are functioning as indicators of sentence type. Secondly, the other two sets of morphemes exhibit clear phonological similarities with each other, but not with the first set.

⁷ The time labels given to the forms are approximate. A fuller explanation of time expression in Sandawe is beyond the scope of this paper.

⁸ The /i/ vowel of the two first person singular affirmative forms may be voiceless or it may be elided completely, leaving a floating low tone. The third person plural morpheme /?à?/ is most commonly realised as /à?/, but is also found as /?à/. In this paper, stems and affixes are shown with their basic tone patterns. For a description of the tonal effects of inflection in Sandawe, see Hunziker and Hunziker (in preparation). For a discussion of the diachronic derivation of PGN morphemes and some differences in analysis, see Elderkin (1989).

Elderkin uses the term *irrealis*⁹ to describe a clause type in Sandawe which ‘frequently serves as a future tense’ (1989: 28) and which uses a low-toned PGN series, as shown in the second column of the table. Since this PGN series is also used in the negative present/future forms and shows phonological similarities with the high-toned series used in the past negative, these two PGN series and the sentence types which use them can be categorised as irrealis. Following on from this, the PGN morphemes used in the affirmative past/present and the sentences in which they occur can be termed realis.¹⁰ When used in this way, the realis/irrealis distinction reflects the morphological and distributional division of the PGN morphemes into two groups, as described above. The division also captures the distinction between the use of the realis PGN morphemes in sentences describing what is factual and the use of the irrealis PGN morphemes in sentences describing what is not factual or what may or may not become fact in the future.

As mentioned above, all three types of PGN morpheme may be suffixed to the verb:

- | | |
|---|---|
| (1) t ^h ímé-sà
cook-3f.sg., realis
‘She cooks/cooked’ | (2) t ^h ímé-`-sù
cook-fut.-3f.sg., irr. (low)
‘She will cook’ |
| (3) t ^h ímé-t ^h ì-sú
cook-neg.-3f.sg., irr. (high)
‘She did not cook’ | (4) t ^h ímé-`-sù-ts’é
cook-fut.-3f.sg., irr. (low)-neg.
‘She does not/will not cook’ |

The subject of a sentence may be expressed by the PGN morpheme, as in the examples above, or by an overt pronoun or a noun:

- | | |
|---|--|
| (5) hèsú t ^h ímé-sà
she cook-3f.sg., realis
‘She cooks/cooked’ | (6) n ^l èmé-sù t ^h ímé-sà
woman cook-3f.sg., realis
‘The woman cooks/cooked’ |
|---|--|

In realis sentences, the pronoun or noun subject of a sentence may be suffixed with a *nominative morpheme* (Elderkin, 1986: 133):

- | | |
|---|--|
| (7) ¹¹ hèsú-á: t ^h ímé
she-nom. cook
‘She cooks/cooked’ | (8) nâm-á: t ^h ímé
Nam-nom. cook
‘Nam cooks/cooked’ |
|---|--|

⁹ The *realis/irrealis* distinction is one of mood. It has been defined as ‘the grammaticalised expression of the location of an event or state in either the real world or in some hypothesised, but not real, world’ (Elliott, 2000: 81).

¹⁰ Note that this analysis differs from that put forward by Elderkin (1989: 26). In his diachronic analysis of Sandawe clause structure, Elderkin uses the term *suffixed subject* PGNs for what are here called realis PGNs and the term *nominal* PGNs for what are here called irrealis PGNs.

¹¹ Except under certain conditions, the tone pattern of an uninflected verb in the realis is *neutralised* in that it becomes an all low-toned pattern (c.f. the tonal system for Sandawe described in Elderkin, 1989). This is shown here by the symbol ‘+’. The tone pattern of an irrealis verb may also be neutralised in the same way (see example (19) below). This is also shown in the transcription by the symbol ‘+’. However, verb tone pattern neutralisation in the irrealis is not dependent on inflection, but on focus, as will be discussed in section 4.2 below.

In contrast, this use of the nominative morpheme is ungrammatical in the three irrealis sentence types.

In realis sentences, the use of the realis PGN morpheme and the use of the nominative morpheme are not mutually exclusive strategies, as will be seen in example (14) below. However, both types of morphemes have the same two semantic-syntactic functions. Namely, identifying the sentence as affirmative and past/present (since both morphemes may only be used in this type of sentence) and identifying a particular constituent as the subject. The PGN morpheme fulfils this latter function by agreeing in person, gender and number with the subject, whereas the nominative morpheme fulfils the same function by attaching to the subject itself, as in the following example:

- (9) nâm-á: kǒ:ŋgó: ʔ!ʔǒ:wé
 Nam-nom. Gkoongoo meet
 S O V
 ‘Nam met Gkoongoo’

Sentence (9) cannot mean ‘Gkoongoo met Nam’ as the nominative morpheme must be suffixed to the subject.

The verb is not the only constituent which may be inflected with a realis PGN morpheme. In realis sentences, other non-subjects may be inflected with a PGN morpheme which agrees in person, gender and number with the subject (Dempwolff, 1916: 23; Tucker and Bryan, 1977: 301; Elderkin, 1986: 143). In this respect, Sandawe differs from Nama as in the latter language the suffixation of a PGN morpheme is to the final word of an NP and indicates the person, gender and number of the NP itself (Hagman, 1977: 21). One result of this inflectional phenomenon in the Sandawe realis is that the disambiguating function performed by the nominative morpheme in example (9) above can also be fulfilled by the PGN morpheme. This is shown in the next example:

- (10) nâm kǒ:ŋgó:-sà ʔ!ʔǒ:wé
 Nam Gkoongoo-3f.sg., realis meet
 S O V
 ‘Nam met Gkoongoo’

Here the inflectional morpheme suffixed to the second NP is a PGN morpheme and therefore the second NP cannot be the subject. Since the first NP agrees with the PGN morpheme in person, gender and number, it can be identified as the subject. In fact, as the following sentences show, the PGN morpheme can be the only means of recognising the subject in a sentence:

- (11) kǒ:ŋgó:-sà ʔ!ʔǒ:wé
 Gkoongoo-3f.sg., realis meet
 ‘She met Gkoongoo’

- (12) ʔútê-sà ʔtʰímé

Non-contrastive focus can be elicited by WH-questions and contrastive focus by yes/no questions, as illustrated by the English examples below, in which the focused portion of the utterance is shown in italics:

- (15) What did the man break?
The man broke *a hoe*. *Non-contrastive*
- (16) Did the man break an axe?
No, the man broke *a hoe*. *Contrastive*

Lambrecht (1994:290) views contrastiveness not as a category of grammar, but as a gradient concept which ‘arises from particular inferences which we draw on the basis of given conversational contexts’. The two examples above represent opposite ends of this contrastiveness gradient. Some languages formalise the difference between utterances at either end of the proposed contrastiveness gradient (see Choi, 1999, for data from German scrambling and Korean topic marking), whereas others do not (see Payne, 1995, for some examples from verb-initial languages).

The formal realisation of focus can be morphological (information status markers), syntactic (constituent order, form of grammatical construction), phonological (prosody) or lexical (nouns or pronouns, choice between lexical items). The Sandawe language provides examples of all of these types of formalisation. The scope of this paper does not allow a discussion of all the possible types and therefore three in particular have been chosen for consideration here:

- (17) (i) Inflection (morphological)
(ii) Constituent order (syntactic)
(iii) Tone (phonological)

These three means of focus realisation will be illustrated and discussed in sections 4.1 and 4.2 below.

An important current issue in the study of focus concerns its relation to grammar (see, for example, Lambrecht, 1994; Vallduví, 1995). Should focus be handled within core grammar or does it belong in a separate, peripheral component? This is a part of the broader debate concerning the status of interface levels in grammar. Sandawe is of particular theoretical interest in this debate as its focus marking mechanisms are realised at various levels of grammar, including morphology, syntax and phonology.

In the following sections, the restrictions on sentence form grammaticality in affirmative declarative sentences in Sandawe are discussed. The realis and irrealis sentence types are considered separately and then compared. The patterns of focus realisation in the two sentence types are then also discussed and compared. This leads into an examination of the relationship between grammar and focus in Sandawe, which is set within the framework of a PF scrambling theory of focus (Kidwai, 1999, 2000).

3. Sentence form grammaticality in Sandawe

3.1 Realis

The data collected for the research presented here shows that realis declarative sentences in Sandawe may be realised with the subject, object, verb(s), AdvP and PP in any order. In this sense, constituent order in the Sandawe realis is free. This supports the findings of previous research on constituent order variation in Sandawe (Dalgish, 1979: 274; Elderkin, 1989: 109; Kagaya, 1990: 109). SOV is the most frequently occurring constituent order and can be understood as basic in Sandawe for both the realis and the irrealis.

Not all constituent orders are grammatical when paired with certain inflection patterns. This can be illustrated by the table below, in which only those combinations indicated by the symbol '✓' are grammatical:

Table 5 Grammatical combinations of constituent order and inflection pattern for S, O, V sentences

	<i>SOV</i>	<i>SV O</i>	<i>OSV</i>	<i>OVS</i>	<i>VSO</i>	<i>VOS</i>	✓ <i>Total</i>
<i>S-nom.</i>	✓	✓	✓	*	*	*	3
<i>O-PGN</i>	✓	*	✓	✓	*	*	3
<i>V-PGN</i>	✓	✓	✓	✓	✓	✓	6
<i>S-nom., O-PGN</i>	✓	✓	✓	✓	*	*	4
<i>S-nom., V-PGN</i>	*	*	*	✓	✓	✓	3
<i>O-PGN, V-PGN</i>	*	✓	*	*	✓	✓	3
<i>S-nom., O-PGN, V-PGN</i>	*	*	*	*	✓	✓	2
✓ <i>Total</i>	4	4	4	4	4	4	24

The ungrammatical combinations of constituent order and inflection in the table above can be accounted for by the two combinatory restrictions first proposed by Elderkin (1989: 106) and Kagaya (1990: 3-5):

- (18) 1. An uninflected verb must not precede the first inflected constituent of a sentence.
 2. An inflected verb must not be preceded by another inflected constituent in a sentence.

The first of these restrictions correctly disallows the following ungrammatical combinations:

Table 6 Ungrammatical combinations rejected by restriction (1)

1	*S	V	O-PGN
2	*O	V	S-nom.
3	*V	S-nom.	O
4	*V	S	O-PGN
5	*V	S-nom.	O-PGN
6	*V	O-PGN	S
7	*V	O	S-nom.
8	*V	O-PGN	S-nom.

The second restriction disallows the following combinations:

Table 7 Ungrammatical combinations rejected by restriction (2)

1	*S-nom.	O	V-PGN
2	*S	O-PGN	V-PGN
3	*S-nom.	O-PGN	V-PGN
4	*S-nom.	V-PGN	O
5	*S-nom.	V-PGN	O-PGN
6	*O-PGN	S	V-PGN
7	*O	S-nom.	V-PGN
8	*O-PGN	S-nom.	V-PGN
9	*O-PGN	V-PGN	S
10	*O-PGN	V-PGN	S-nom.

The remaining 24 combinations are grammatical. The same two restrictions correctly predict the grammatical and ungrammatical combinations of constituent order and inflection pattern for a sentence containing a subject, an object, a verb and an adverb (see Eaton, 2002, for a demonstration of this and a discussion of constituent-specific restrictions on inflection).

However, the two restrictions given in (18) above do not satisfactorily allow all and only all the grammatical combinations of constituent order and inflection pattern for those sentences containing more than one verb. Data on the status of multiple verb constructions in Sandawe shows that two verbs may both be inflected, contrary to the second restriction outlined above, providing that the verbs occur in a specific order (Eaton, 2003; c.f. Kagaya, 1994).

It is important to remember that while the system of grammaticality described above exhibits a fascinating orderliness, not all the grammatical sentence patterns are likely to be used in normal conversation. In the focusing tasks to be discussed in section 4 below, for example, only 11 of the 24 grammatical sentence patterns for a realis sentence containing a subject, an object and a verb were elicited. However, it is equally important to remember that when asked for their grammaticality judgments on sentence patterns, native speakers of Sandawe clearly differentiate between grammatical and ungrammatical patterns, even if they do not readily use all the grammatical patterns in normal discourse.

3.2 *Irrealis*

Sandawe irrealis sentences may be realised with the subject, object, verb, AdvP and PP in any order. Constituent order in the Sandawe irrealis can therefore be considered free in this sense. These findings lend support to the position held by Dalgish (1979: 279) and Kagaya (1990: 6), who state that major constituent order in the Sandawe irrealis is free. A different position is held by Elderkin (1991: 109), who claims that less word order variation is possible with the irrealis than with the realis. In the main, this is not supported by the data elicited during the grammaticality judgment task. However, in contrast to the realis sentences, the informant judged those orders in which the object and/or the verb precedes the subject as marginally grammatical in the irrealis. Those orders in which the object precedes the subject are particularly problematic when the subject and the object are both grammatically and semantically capable of being the subject of the sentence, as in the example below:

(19) ¹³	gáwâ	⁴ tl'ápúmé-`-i	dégérâ
	Gawa	beat up-fut.-3m.sg. irr. (low)	Degera
	S/O	⁴ V	O/S
	‘Gawa will beat up Degera’ or ‘Degera will beat up Gawa’		

The informant would only accept this sentence as being unambiguous in the order NP NP V, which he interpreted as expressing the order SOV. When the sentence was put to him in the orders NP V NP and V NP NP, he judged the sentence as ambiguous. This ambiguity cannot be resolved by means of inflection since the PGN morpheme must only be suffixed to the verb in the irrealis and the nominative morpheme cannot be used.

In the course of the focusing tasks to be described in section 4 below, the main informant produced an irrealis sentence with the constituent order OSV and another informant produced an example of the same order on a different occasion. The occurrence of OSV tokens in the focusing tasks supports the position that this constituent order is grammatical in the Sandawe irrealis, although its acceptability depends on contextual factors.

As mentioned above, the verb must be inflected in the Sandawe irrealis and no other constituents may be inflected as well. In irrealis sentences which use the low-toned irrealis PGN series, the inflected verb may be realised with its underlying tone pattern or with a neutralised one. Therefore a further way in which these irrealis sentences can vary in form concerns the combination of constituent orders with the two different verb tone patterns. The data collected clearly shows that the one restriction on combining the different constituent order possibilities with the alternative tonal realisations of the verb is that a sentence-initial verb must retain its underlying tone pattern, as illustrated by the following two examples:

¹³ An irrealis verb with a neutralised tone pattern is represented by ⁴V. An irrealis verb which retains its underlying tone pattern is represented by V.

- (20) t^hímé-`-sù llòká ɬé?
 cook-fut.-3f.sg., irr. (low) Xogka later
 V S AdvP
 ‘Xogka is going to cook later’
- (21) *t^hímé-`-sù llòká ɬé?
 cook-fut.-3f.sg., irr. (low) Xogka later
^hV S AdvP
 ‘Xogka is going to cook later’

In any other position in the sentence, the verb may occur with either its underlying tone pattern or a neutralised tone pattern. (Irrealis sentences using the high-toned irrealis PGN series do not exhibit this type of tonal alternation.)

3.3 Comparing sentence form grammaticality in the realis and irrealis

There are very clear differences between the realis and the irrealis with respect to sentence form grammaticality. In the realis, the distribution of inflectional morphemes and the order of major constituents may vary. Variation is primarily a morphological and syntactic phenomenon. In contrast, in the irrealis, there is no morphological variation. Recall that the verb must be inflected and no other constituent may be inflected as well. However, constituent order may vary, as may the tone pattern of the verb. Thus irrealis sentence form variation is a syntactic and phonological phenomenon.

However, despite these differences, some similarities between the realis and irrealis sentence types can be seen. One similarity is the existence of constituent order variation in both sentence types. A further similarity can be seen between an inflected verb in the realis and a verb with its underlying tone pattern in the irrealis. Namely, a realis verb must be inflected if it is sentence-initial and an irrealis verb which is suffixed with a low-toned PGN morpheme must occur with its underlying tone pattern if it is sentence-initial. This restriction in the realis is part of the larger restriction which states that an uninflected verb must not precede the first inflected constituent of a sentence. The irrealis has no parallel restriction regarding the tone of the verb since it is only the verb which may vary in tone in this way. An inflected verb in the realis and a verb with its underlying tone pattern in the irrealis are also parallel in that both occur with a high tone pattern, in contrast with an uninflected verb in the realis and an irrealis verb with a neutralised tone pattern, which both occur with a low tone pattern.

4. Focus in Sandawe

Data on the relationship between sentence form and focus was collected using a sentence anagram task, a picture description task and a translation task. All these tasks were designed to elicit sentences in context.¹⁴ For a detailed discussion of the rationale and methodology of the tasks, see Eaton (2002). A brief explanation of the three

¹⁴ For examples of this, see the footnotes to sentences (22) and (23) below.

focusing tasks is given in the appendix to this paper. All the examples in the following sections were elicited during these tasks.

4.1 *Realis*

Previous research on sentence form variation in Sandawe is divided over whether this variation exhibits a relationship with focus. Dalgish (1979: 274) claims that sentence form variation is not affected by focus but rather by a system of subject identification strategies. This view is opposed by Elderkin (1986, 1989, 1994) and Kagaya (1990).

Elderkin refers to any constituent which is suffixed with either the nominative morpheme or a realis PGN morpheme as a *marked* constituent (1989: 27), which has ‘some sort of prominence in the information structure of the clause’ (1986: 108). In his analysis of some transcribed stories, he comes to the conclusion that, ‘It is not true that Sandawe is a free word order language’ (1994: 12), since word order is influenced by discourse factors. For the realis, he claims that fronting is a means that the language employs to give a constituent *discourse prominence* (1994: 5), although this is only a tendency as unfocused material may also occur sentence-initially (1986: 133).

Kagaya (1990: 2) notes that the word that has the PGN morpheme suffixed to it in the realis receives more emphasis than the other words. He goes on to associate the nominative morpheme with emphasising the subject (1990: 4), as is clear from his use of the term *subject emphasis affix* for this morpheme. His analysis of the data suggests that an inflection pattern for a sentence is chosen first, on the basis of focus considerations, and then the constituent order employed is dependent on this. He concludes that constituent order is ‘not completely free’ in the language (1990: 11), since it is indirectly influenced by information structure. That is, the choice of inflection pattern is determined by discourse factors and this choice in turn affects which constituent order is selected. However, some constituent order freedom remains as a given inflection pattern may often be grammatically realised by several different constituent orders.¹⁵

The data collected for the research presented here provides support for the view that sentence form variation in Sandawe is affected by focus. Furthermore, as will be seen in section 5.2 below, the data suggests that focus is even more closely linked to sentence form grammaticality than it might first appear.

It was mentioned in section 2 above, that this paper concentrates on three types of focus marking in Sandawe: inflection, constituent order and tone. In the realis, the main focus marking mechanism is inflection, as in the following example:

(22)¹⁶ ʔàʔá hěû n̩lèmésé: nèmà-à wák’wâ:

¹⁵ For example, if the subject alone is inflected in a sentence containing a subject, object and verb, three constituent orders are grammatical: SOV, SVO and OSV. Kagaya does not discuss possible pragmatic factors involved in the choice between options such as these.

¹⁶ This sentence comes from the picture description task and was elicited in response to the question, ‘Has the man killed a dik-dik?’. The verb follows a low-toned noun and therefore its tone pattern is not neutralised in this sentence.

no	this	man	African civet cat-3m.sg., realis	kill
	S		O-PGN	V
'No, this man has killed <i>an African civet cat</i> '				

Here the focus of the English gloss is shown in italics and the focused constituent of the Sandawe utterance is shown in bold type in the third line of the example. The object constituent in Sandawe is realised as focused by the suffixation of an inflectional morpheme.

Constituent order, in conjunction with inflection, is a further means of focus marking in the Sandawe realis, as illustrated by the next example:

(23) ¹⁷	nâm	sómbá	ʔútê-sà	ʔ ^h ímé
	Nam	fish	yesterday-3f.sg., realis	cook
	S	O	AdvP-PGN	V
'Nam cooked the fish <i>yesterday</i> '				

The placement of the adverb in the immediately preverbal position, together with its inflection with a PGN morpheme, marks it as focused. The data collected for the research discussed in this paper contains no examples of a focused, but uninflected constituent, occurring in the immediately preverbal position in a realis sentence. Constituent order is therefore not an independent means of marking focus in the realis.

Further focus marking patterns for the realis are discussed below in comparison with their equivalents for the irrealis (see section 4.3 below).

4.2 Irrealis

With respect to the irrealis, Elderkin (1991: 110) notes that when there is no overt object, the subject can be made an *information point* with tone levels. That is, the verb occurs with a low tone pattern and contrasts with the high tone pattern of the immediately preceding focused constituent. The example below illustrates this phenomenon:

(24)	nâm	ʔ ^h ímé-`-sù
	Nam	cook-fut.-3f.sg., irr. (low)
	S	^h V
' <i>Nam</i> is going to cook'		

Thus the subject is given prominence in the utterance as it alone has the highest pitch.

This use of tone and constituent order as a focusing mechanism is also evident in utterances with non-canonical constituent order, such as the one given below:

¹⁷ This sentence was elicited during the sentence anagram task in response to the question, 'When did Nam cook the fish?'

- (25) dlàní-[˜] tá:mbâ ʔítʃáwâ:-`-ì
 arrow-sp.¹⁸ Dtaamba look for-fut.-3m.sg., irr. (low)
 O S ʔV
 ‘Dtaamba will look for the arrow’

The verb can be marked as focused by occurring with its underlying tone pattern. This realises both verb focus and polarity focus, as in the following two examples:

- (26) nâm sómbá dlòmóká:-`-sù
 Nam fish sell-fut.-3f.sg., irr. (low)
 S O V
 ‘Nam will *sell* the fish’ *Verb focus*

- (27) dégerâ dlòmóká:-`-ì ɬá:-[˜]
 Degera sell-fut.-3m.sg., irr. (low) goat-sp.
 S V O
 ‘Degera will sell the goat’ *Polarity focus*

This tonal means of focus realisation occurs with both canonical and non-canonical constituent orders, as the two examples above go. It is used only in sentences containing low-toned irrealis PGN morphemes.

4.3 Comparing focus in the realis and irrealis

Focus marking in the Sandawe realis is morphological and syntactic, whereas in the irrealis it is syntactic and phonological. However, these surface differences mask some underlying similarities between the two sentence types, which can be observed on closer inspection of the data.

The table below includes all the realis and irrealis combinations occurring with a single constituent in focus from the total focusing task data set. For those focus types which are associated with more than one sentence pattern, the most frequently occurring combination is labelled (1) and less frequent patterns are labelled (2), (3) and (4) in order of descending frequency. Combinations with the same frequency of occurrence are listed next to one number.¹⁹

¹⁸ /-[˜]/ marks specificity on nouns in Sandawe.

¹⁹ The position of unfocused adjuncts and disjuncts is not shown in order to simplify the data represented in the table.

Table 8 The relationship between realis and irrealis sentence patterns and focus type

<i>Focus type</i>	<i>Realis</i>	<i>Irrealis</i>
<i>Subject focus (intransitive)</i>	S-nom. V	S ⁺ V
<i>Verb/polarity focus (intransitive)</i>	S V-PGN	S V
<i>Adjunct focus (intransitive)</i>	S A-PGN V	S A ⁺ V
<i>Subject focus</i>	1. S-nom. O V 2. S-nom. V O	1. S O ⁺ V 2. S ⁺ V O 3. O S ⁺ V
<i>Object focus</i>	1. (S) ²⁰ O-PGN V 2. O-PGN V S	(S) O ⁺ V
<i>Verb focus (non-contrastive)</i> ²¹	1. S O V-PGN S O-PGN V 2. S V-PGN O 3. S V-PGN O-PGN	1. S O V 2. S O ⁺ V 3. S V O
<i>Verb focus (contrastive)</i>	1. (S) O V-PGN 2. (S) O-PGN V 3. S V-PGN O S V-PGN O-PGN	1. S O ⁺ V 2. S O V 3. S V O
<i>Polarity focus</i>	1. S O V-PGN 2. S V-PGN O 3. S O-PGN V	1. S O V 2. S V O 3. S O ⁺ V
<i>Adjunct focus</i>	1. S O A-PGN V S A-PGN V O 2. S A-PGN O V	1. S O A ⁺ V 2. S A ⁺ V O 3. S A O ⁺ V

We can see here a striking parallelism in the use of combinations as a focusing mechanism in the two sentence types. Despite the greater freedom in realis constituent order, the realis and irrealis sentence types exhibit a remarkable similarity in the relationship between focus and constituent order. Furthermore, a correspondence can be observed between an uninflected verb in the realis and a verb with a neutralised tone pattern in the irrealis on the one hand, and an inflected verb in the realis and a verb with its underlying tone pattern in the irrealis on the other.

For both the realis and the irrealis, the more frequently occurring of the two main subject focus patterns given above exhibits the constituent order SOV, whereas the second pattern involves a postverbal unfocused object and the positioning of the focused constituent in the immediately preverbal position. It appears that two conflicting preferences are at work here. Firstly, the preference for SOV constituent order, and secondly, the preference for focused constituents to occur in the immediately preverbal position. The first of these is the stronger as SOV occurs more frequently than SVO. The irrealis data also provides an example of OSV, with the

²⁰ 'S' is shown in parentheses here, and in other cells in the table, because some combinations in the focusing tasks do not include a subject.

²¹ Non-contrastive and contrastive focus are here only distinguished for verb focus as the data shows that the contrastiveness distinction is not formally realised in the focusing of non-verbs.

focused subject again in the immediately preverbal position (as in example (25) above).

In contrast, the constituent order SOV for object focus satisfies both preferences without conflict and therefore only one constituent order is commonly associated with object focus. One example of an object focus utterance in the order OVS is found in the realis data. In this order, the focused constituent is immediately preverbal, as in the subject focus combinations discussed above.

The inflected verb in the realis and the verb with its underlying tone pattern in the irrealis realise verb focus, but the association between these combinations and focus is not as closely followed as the association of form and function in focusing non-verbs. Two other main combinations are associated with verb focus.²² One of these is the object focus pattern SO-PGNV/SO⁺V. The other is SV-PGNO/SVO, in which the unfocused object occurs in a postverbal position. Here there is a conflict, as with the subject focus patterns, but in this case it is between SOV constituent order and the language's (weak) tendency for an unfocused object to occur to the right of the verb. As with subject focus, the greater frequency of SOV-PGN/SOV versus SV-PGNO/SVO suggests that the SOV preference is the stronger of the two.

Each of the three main combinations associated with verb focus is found with each of the three types of verb focus²³ shown in the table above. SOV-PGN/SOV is the most frequent combination for all the verb focus types, with the exception of contrastive verb focus in the irrealis. For both non-contrastive verb focus and polarity focus, the relative frequency order of the three main verb focus combinations is the same.

5. Towards a theoretical account of Sandawe focusing

The scope of this paper does not allow for a detailed exposition of the theoretical approach which is put forward to account for the Sandawe data discussed above. In the next section the PF scrambling²⁴ approach proposed by Kidwai (1999, 2000) is summarised. In the following section, the merits of this approach for Sandawe will be briefly considered.

5.1 PF scrambling

Kidwai (1999: 215-216) notes that there is a relationship between syntactic focusing and non-canonical constituent orders. She presents data from a number of languages, including Hindi-Urdu, to show that canonical linear constituent order does not express the focusing of the constituent which occurs in the linear focus position. In contrast, a non-canonical constituent order which has been derived by scrambling always results in the focusing of the constituent found in the designated focus position. This

²² A fourth verb focus combination occurs in the realis data: the combination SV-PGNO-PGN. The nearest possible equivalent combination to this in the irrealis is SVO, which occurs with verb focus.

²³ Polarity focus is taken here to be a type of verb focus.

²⁴ The term *scrambling* is understood here as the variation of constituent order within a clause which does not alter propositional meaning (Corver and van Riemsdijk, 1994: 1).

designated focus position is defined in relation to the verb. In Hindi-Urdu, for example, the focus position is the immediately preverbal position.

Kidwai (1999: 225) argues that the movement process behind the scrambling seen in Hindi-Urdu cannot occur in overt syntax as it is optional and does not obey the principle of *Last Resort*, according to which movement takes place only if there is no other way to satisfy grammatical requirements (Chomsky, 1995: 28). If it is then assumed that scrambling occurs in the PF component, an important question is raised. How can PF be structured in order to handle languages that do have focus positions and those that do not? Kidwai proposes that PF rules involve mechanisms similar to those in the syntactic component. These rules can therefore be motivated by feature checking and operate on hierarchical structure, according to adjacency and linearity conditions. Scrambling must be achieved via adjunction since this is the only type of movement available in the PF component (1999: 226).

In the case of focus-driven scrambling, a feature [+focus] is proposed as the motivation for the adjunction. Kidwai proposes that the feature [+focus] is outside the [LF[±Interpretable]] distinction as its interpretation is related to pragmatics rather than LF. Instead, Kidwai proposes that the feature is analysed as [PF[+Interpretable]], surviving to the PF interface and requiring licensing there. Structures derived by PF movement are interpreted at Domain Discourse, which was originally proposed by Chomsky (1981). This domain is found at the edge of the PF component, at a level distinct from LF (Kidwai, 1999: 213-214). It is analysed as the domain in which those notions pertaining to pragmatics, such as presuppositionality, focusing and coreference effects, are interpreted.

The theory Kidwai expounds handles not only syntactic focus realisation, but also morphological and phonological focus marking as the [+focus] feature may be licensed at any level internal to PF: by PF movement, in Morphology or in Phonology (1999: 228). Furthermore, like [LF[+Interpretable]] features, the focus feature can be accessed repeatedly by the PF computation and therefore all three types of focus marking can be used to focus one constituent

In syntactic focusing, the [+focus] feature must be licensed under adjacency to a verbal projection, thus capturing the fact that languages with a designated focus position usually define that position as adjacent to the verb. It is important to note Kidwai's claim that adjacency in the PF component is defined in the mapping from syntax to phonology. Therefore, only those elements which are involved in the mapping process count in the definition of adjacency. In order to satisfy legibility conditions, traces and empty projections are deleted at PF and are thus irrelevant to this understanding of adjacency.

5.2 A PF scrambling approach to Sandawe

In order to examine whether a PF scrambling approach is helpful in the analysis of Sandawe focusing, it is helpful to recall the major types of derived orders evident in Sandawe, as summarised in the table below:

Table 9 Derived constituent order and focus type

<i>Basic constituent order</i>	<i>Derived constituent order(s)</i>	<i>Focus type</i>
SOV	SVO	Focused subject
SAV	SVA	Focused subject
SAOV	SOAV, SAVO	Focused adjunct
SOV	SVO	Focused verb

All the types of information structure given in the table above may also be expressed with a basic constituent order and therefore the association of the derived constituent orders with particular types of information structure is an optional one. Can this optionality be handled by Kidwai's PF scrambling theory?

The four derived orders for focused XPs in the table above are SVO and SVA for subject focus and SOAV and SAVO for adjunct focus. All four orders have in common that the immediately preverbal position is occupied by the focused XP. This is in line with the phenomenon Kidwai observes in Hindi-Urdu, which like Sandawe is a language with basic SOV constituent order. That is, a change from the basic constituent order signals that the immediately preverbal constituent is focused. In order to discover whether this finding is replicated in the focusing tasks data set as a whole, we need to consider all those items which display a non-basic constituent order. Of the 187 items with non-basic constituent order, 72 (38.5%) do have a focused constituent in the immediately preverbal position. This appears not to follow the Hindi-Urdu pattern.

However, on further analysis, it can be seen that the 72 exceptions are either examples of the constituent order SOVA (where A represents an adjunct) or items in which the verb is focused. This can be explained if we make a distinction between those non-canonical orders derived by adjunct or verb movement and those derived by argument movement. It is proposed here that the order SOVA is derived by adjunct movement and the examples of verb focus in which the verb is not in its basic final position are derived by the leftward movement of the verb. All remaining orders can be analysed as the result of argument movement. It can therefore be stated without exception that argument movement in Sandawe results in the activation of the immediately preverbal focus position. In contrast, adjunct movement and verb movement do not activate the focus position.

A possible means of capturing this distinction in movement types is suggested by Kidwai in her later work (2000). She analyses Hindi-Urdu as having a Focus Phrase, which is base-generated in a position immediately dominating VP (2000: 117). Kidwai goes on to suggest that F^0 is a *dormant* head, which only licenses D-features under certain structural conditions (2000: 120). In Hindi-Urdu these structural conditions are achieved via scrambling. The same approach can be taken for Sandawe, if the structural conditions are achieved via argument movement only.

The approach discussed above goes some way towards explaining the constituent order variation found in Sandawe focus phenomena. However, for declaratives in the realis, focus in Sandawe not only affects constituent order, but also inflectional morpheme distribution. How can this be accounted for? Recall that Sandawe focus

morphemes are not associated with a particular structural position. Instead they are associated with a particular linear position, which is defined and regulated in relation to the position of the verb:

- (28)
1. An uninflected verb must not precede the first inflected constituent of a sentence.
 2. An inflected verb must not be preceded by another inflected constituent in a sentence.

The PF adjunction approach of Kidwai (1999, 2000), as summarised in the previous section, is designed to handle all three major types of focus realisation: syntactic, morphological and phonological. Recall that the focus feature is a [PF[+Interpretable]] feature that may survive to the interface unchecked. It can thus be licensed at any level internal to PF: by PF movement, in Morphology or in Phonology (1999: 228). Since the focus feature can be accessed repeatedly by the PF computation, all three types of focus marking can be utilized in the focusing of one constituent. The sentence pattern S-nom.VO, for example, therefore simultaneously exhibits two kinds of focus marking. At the syntactic level, the immediately preverbal positioning of the subject marks it as focused and at the morphological level, the use of the nominative marker is also associated with focus.

The first realis grammaticality restriction states that an uninflected verb must not precede the first inflected constituent of a sentence. This restriction follows from Kidwai's theory. It has been shown already how the movement of arguments in the realis is associated with a focused XP occurring in the immediately preverbal position and the movement of the verb with verb focus. In the first instance, the resulting combination has a focused, and therefore inflected, XP occurring before the verb, thus satisfying the first morphosyntactic restriction. In the second instance, the resulting combination has a focused, and therefore inflected, verb, thus again satisfying the restriction. However, it should be noted that a focused verb is not always inflected. The data shows that if it is not inflected, the basic constituent order is preserved and the object preceding it is inflected instead.

If syntactic movement only occurs in order to activate the immediately preverbal focus position or to focus the verb, it follows that it will never result in an unfocused and uninflected XP occurring before an unfocused and uninflected verb. This is precisely the situation which is prohibited by the first morphosyntactic restriction. If no syntactic movement takes place, the verb is sentence-final and therefore the restriction has no effect. However, it should be noted that if, as was assumed above, the movement of adjuncts does not activate the focus position, the explanation given above does not hold for ungrammatical combinations such as *SOVA-PGN.

The second morphosyntactic restriction states that an inflected verb must not be preceded by another inflected constituent. If the verb is inflected, it is usually focused. As was shown above, if the verb is focused, the immediately preverbal position is not activated as the focus position. The restriction shows that in Sandawe, the inflection of the verb has a further effect in that constituents must move from their basic preverbal positions to a postverbal position in order to be focused and inflected.

It is important to remember that the nominative marker and the PGN morpheme are not merely markers of focus. Both morphemes are involved in grammatical role assignment and the indication of the syntactic type of the sentence. Their dual role in focus and core grammar must be handled in an account of the licensing of the focus feature. In addition, the subject/non-subject distinction must be present at PF since this distinction determines whether the nominative morpheme or the PGN morpheme is used in focusing.

We can account for some of these facts by positing that the process of realis inflection is divided between the syntactic component and the PF component. In the former, IP constituents are marked with the PGN features of the subject. The subject itself is not marked since it already carries its own PGN features. Once at the level of Morphology in the PF component, those constituents marked with the subject's PGN features may have these features realised phonetically with the appropriate PGN morpheme. If the subject is focused, it is marked with the nominative morpheme. The distribution of these morphemes is subject to the morphosyntactic restrictions discussed above and motivated by the feature [+focus].

As well as at the syntactic and morphological level, focusing in Sandawe may take place at the phonological level. In the irrealis, a verb suffixed with a low-toned PGN morpheme may be focused by occurring with its underlying tone pattern and a non-verb may be focused by occurring immediately before a verb with a neutralised tone pattern. One way to handle these facts is to posit that the default effect of the suffixation of the low-toned irrealis morpheme is the neutralisation of the verb's tone pattern, but when the verb is positively marked with a focus feature, the verb's underlying tone pattern is retained. Kidwai's (1999, 2000) PF adjunction theory allows for the focus feature to be checked at the level of Phonology. In the case of focusing a non-verb, arguments may undergo adjunction in order for a focused constituent to occur in the immediately preverbal focus position, as in the realis.

The association of the immediately preverbal position with focus in the irrealis is only a tendency. A focused XP may be found in its basic position. Unlike the realis, the irrealis does not allow morphological focusing as an alternative strategy. Since the existence of the morphological strategy in the realis can be cited as an explanation for the optionality of focus-related movement, its absence in the irrealis might be expected to result in obligatory focus-related movement. Why is this not the case? One possibility is that the effect of the absence of morphological focusing is countered by the need to avoid ambiguity in the irrealis. The restriction that only the verb may be inflected in the irrealis means that constituent order is more important as an indicator of grammatical role assignment than in the realis, since inflectional morphology cannot be used in disambiguation.

If an irrealis verb suffixed with a low-toned PGN morpheme is in sentence-initial position, it must occur with its underlying tone pattern, whereas in any other sentence position, both the underlying and the neutralised tone patterns are grammatical. This can be explained in terms of Kidwai's theory since the underlying tone pattern is associated with verb focus and the neutralised tone pattern mainly with non-verb focus. That is, the basic constituent order for the irrealis, as for the realis, is verb-final. Departures from this order result in either the activation of the immediately preverbal

linear focus position or the focusing of the verb with its underlying tone pattern. In the case of a sentence-initial verb with a neutralised tone pattern, neither of these results is achieved and hence this is an ungrammatical combination of constituent order and tone pattern. However, it is important to remember that whilst a verb with a neutralised tone pattern can be associated with verb focus, it can never occur sentence-initially. The explanation of this restriction in discourse terms, as given above, is based on a strict association between verb focus and a verb occurring with its underlying tone pattern. The data presented here shows that this association is not absolute (see *Table 8* in section 4.3 above). A possible explanation for some of the optionality evident in Sandawe focusing is that the language is in a transitional stage. A diachronic explanation of this kind provides us with a possible account of why the morphosyntactic restrictions in the language appear to be motivated by focus, but are now best defined with reference to inflection.

6. Conclusion

The extent of Sandawe sentence variation appears at first to be a bewildering phenomenon. Constituent order, inflectional distribution and tone pattern may all vary, although within certain limits. It has been shown in this paper that this variation is affected by focus. A clear division can be made between the realis sentence type, in which the variation is syntactic and morphological, and the irrealis sentence type, in which the variation is syntactic and phonological. However, on closer analysis, it becomes apparent that the surface differences between the realis and the irrealis obscure fundamental similarities between the two sentence types.

When the Sandawe data is considered within the theory of focus proposed by Kidwai (1999, 2000), the various limitations on sentence variation no longer appear arbitrary. It has been argued that the immediately preverbal linear focus position in Sandawe is only activated by the movement of arguments and the morphosyntactic restrictions in the realis and the tonal restriction in the irrealis can be explained as a reflex of this process. Variation in the combination of constituent order, inflectional morpheme distribution and tone pattern is therefore both triggered by and constrained by focusing. In this way, the restrictions on variation in the realis and irrealis, which appear to be distinct, are motivated by the same phenomenon and can be economically handled by the same account.

Furthermore, the approach taken here addresses the optionality of focus-related constituent order variation in Sandawe and successfully accounts for the association of a linear focus position with non-canonical constituent orders. The approach also allows for morphological, syntactic and phonological correlates of focus, all of which are evident in Sandawe. Focus is not to be dismissed as peripheral to core grammar in the language. Apparently arbitrary grammatical restrictions can be explained as being motivated by focus. In this way, it can be shown that the grammar of focus in Sandawe is a key to the grammar as a whole.

7. References

- Choi, Hye-Won. (1999). *Optimizing structure in context. Scrambling and information structure*. Cambridge: Cambridge University Press.
- Chomsky, Noam. (1981). *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, Noam. (1995). *The Minimalist Program*. Cambridge, MA: MIT Press.
- Corver, Norbert & van Riemsdijk, Henk. (1994). Introduction: Approaches to and properties of scrambling. In Corver, Norbert & van Riemsdijk, Henk. (eds.), *Studies in generative grammar 41: Studies on scrambling: Movement and non-movement approaches to free word-order phenomena*. Berlin: Mouton de Gruyter. 1-15.
- Dalgish, Gerard M. (1979). Subject identification strategies and free word order: The case of Sandawe. *Studies in African Linguistics* **10.3**. 273–310.
- Dempwolff, Otto. (1916). *Die Sandawe. Linguistisches und ethnographisches Material aus Deutsch-Ostafrika*. Hamburg: L. Friedrichsen & Co. *Abhandlungen des Hamburgischen Kolonialinstituts*, 34. B. Völkerkunde, Kulturgeschichte und Sprachen, 19.
- Eaton, Helen C. (2002). *The grammar of focus in Sandawe*. Unpublished Ph.D. dissertation. University of Reading.
- Eaton, Helen C. (2003). *Are there serial verb constructions in Sandawe?* Paper presented at the seventh Linguistics Association of SADC Universities (LASU) conference, University of Dar es Salaam, Tanzania. 21st–23rd August 2003.
- Elderkin, Edward D. (1986). Diachronic inferences from basic sentence and noun structure in Central Khoisan and Sandawe. *Sprache und Geschichte in Afrika* **7.2**. 131-156.
- Elderkin, Edward D. (1989). *The significance and origin of the use of pitch in Sandawe*. Unpublished D. Phil dissertation. University of York, Heslington, York.
- Elderkin, Edward D. (1991). Clause structure and tone in Sandawe. *York Papers in Linguistics* **15**. 93–115.
- Elderkin, Edward D. (1994). *Sandawe verbal sentences*. Unpublished Ms.
- Elliott, Jennifer R. (2000). Realis and irrealis: Forms and concepts of the grammaticalisation of reality. *Linguistic Typology* **4.1**. 55-90.
- Greenberg, Joseph H. (1955). *Studies in African linguistic classification*. Connecticut: Compass.
- Hagman, Roy S. (1977). *Nama Hottentot grammar*. Bloomington: Research Center for Language and Semiotic Studies, Indiana University.
- Hunziker, Daniel A. & Hunziker, Elisabeth. (In preparation). *A description of the phonology of the Sandawe language*. Ms., SIL International, Tanzania.
- Kagaya, Ryohei. (1990). Jiyū gojun gengo de no gojun seigen. Sandawe go no baai. (Restriction on word order of free word order language - the case of the Sandawe language.) *Journal of Asian and African Studies* **40**. 1-12. Institute for the Study of Languages and Culture of Asia and Africa. Translated by F. Ingham-Nagasawa.
- Kagaya, Ryohei. (1994). Sandawe go no shinkou hyougen de no go no grūpu ni tsuite: syukaku setsuji no kousetsu ni kanshite. (A word group in the progressive

- expression of the Sandawe language. Concerning the suffixation of a subject marker.) *Journal of Asian and African Studies* **46-47**. 175-187.
- Kidwai, Ayesha. (1999). Word order and focus positions in universal grammar. In Rebuschi, Georges & Tuller, Laurice. (eds.), *The grammar of focus*. Amsterdam/Philadelphia: John Benjamins. *Linguistik Aktuell* 24. 213-244.
- Kidwai, Ayesha. (2000). *XP-adjunction in universal grammar: Scrambling and binding in Hindi-Urdu*. Oxford: Oxford University Press.
- Lambrecht, Knud. (1994). *Information structure and sentence form. Topic, focus and the mental representation of discourse referents*. Cambridge: Cambridge University Press.
Amsterdam/Philadelphia: John Benjamins. *Linguistik Aktuell* 33.
- Payne, Doris L. (1995). Verb initial languages and information order. In Downing, Pamela & Noonan, Michael. (eds.), *Typological Studies in Language* 30: *Word order in discourse*. Amsterdam/Philadelphia: John Benjamins. 449-485.
- Sands, Bonny E. (1995). *Evaluating claims of distant linguistic relationships: the case of Khoisan*. *UCLA Dissertations in Linguistics* 14. UCLA Linguistics Department, Los Angeles.
- Stalnaker, Robert. (1974). Pragmatic presuppositions. In Munitz, Milton K. & Unger, Peter. (eds.), *Semantics and philosophy*. New York University Press. 197-213.
- Traill, Anthony. (1994). Khoisan languages. In Asher, R E. (ed.), *The encyclopedia of language and linguistics* 4. Oxford: Pergamon Press. 1842-1843.
- Tucker, Archie N. & Bryan, Margaret A. (1977). (Woodburn, James - co-author for Hadza). The east African click languages: a phonetic comparison. In Möhlig, Wilhelm J.G.; Rottland, Franz & Heine, Bernd. (eds.), *Zur Sprachgeschichte und Ethnohistorie in Afrika: Neue Beiträge afrikanischer Forschungen*. Berlin: Dietrich Reimer. 300-323.
- Vallduví, Enric. (1995). Structural properties of information packaging in Catalan. In É. Kiss, Katalin. (ed.), *Discourse Configurational Languages*. New York, Oxford: Oxford University Press. 122-152. Oxford Studies in Comparative Syntax.
- Wright, Richard; Maddieson, Ian; Ladefoged, Peter & Sands, Bonny. (1995). A phonetic study of Sandawe clicks. *UCLA Working Papers in Phonetics* **91**. 1-24.

were designed to elicit answers with different sentence articulations. Two examples are given below:

- (31) *A picture of a man with a spear standing over a dead animal is displayed.*

Investigator: Mtu alimwua digidigi?
Has the man killed a dik-dik?

Subject's response:

àʔá	hěû	ˢlèmésé:	nèmà-à	wák'wâ:
no	this	man	African civet cat-3m.sg., realis	kill
	S		O-PGN	V

'No, this man has killed *an African civet cat*'

- (32) *A picture of a mouse next to a trap is displayed.*

Investigator: Nini itamtokea panya?
What will happen to the mouse?

Subject's response:

bûrî	l'úmúkû	ˢn!á:ˢ -î
mouse	trap	catch-fut.-3m.sg., irr. (low)
O	S	V^L

'The mouse, *the trap will catch it*'

8.3 The translation task

The third focusing task used in the research was a translation task, using translation from Swahili. In this task, the subject was asked either to translate a sentence from Swahili into Sandawe or to respond to a Swahili question with a particular answer in Sandawe, which had previously been given to him in Swahili. The next two examples illustrate these two techniques:

- (33) *Investigator:*
 Naomba useme kwa Kisandawe, 'Gele hakumnunua mbuzi, Xhobpi alimnunua'.
I want you to say in Sandawe, 'Gele didn't buy the goat, Xhobpi bought it'.

Subject's response:

gélé	ʔă:	dlòmó-tʃʰi-é:	ˢhòpí-á:	ˢdlòmó
Gele	goat	buy-neg.-3m.sg., irr. (high)	Xhobpi-nom.	buy
			S-nom.	V

'Gele didn't buy the goat, *Xhobpi bought it*'

- (34) *Investigator:*
 Swali ni, ‘Nini imetokea?’. Naomba ujibu kwa Kisandawe, ‘Gele alivunja jembe jana’.
The question is, ‘What happened?’. I want you to answer in Sandawe, ‘Gele broke the hoe yesterday’.

Subject’s response:

gélé	ʔútê-à	kòlǒ:-à	˦wě:
Gele	yesterday-3m.sg., realis	hoe-3m.sg., realis	break
S	AdvP-PGN	O-PGN	V
<i>‘Gele broke the hoe yesterday’</i>			