Verbal Extensions in Kipsigis

Bii, John Kibet Lonyangapuo, Mary, PhD Chelimo, Andrew Kiprop

Moi University Department of Linguistics and Foreign Languages Kenya

Abstract

In this paper we present a description of verbal extensions in Kipsigis. In addition, we briefly show how the principles of theta theory can account for the arguments presented. Kipsigis belongs to the group of languages that allows co-occurrence of extensions in addition to appearing individually in a structure. The language contains both valence-increasing morphemes; applicatives and causative, and valence-reducing morphemes such as; reciprocal, stative and impersonal. We noted that applicatives in Kipsigis include: benefactives, -w- and -chi-, locative -y- and instrumental -en- while the causative is represented by the morphemes -e- and -si- and a lexeme -yai. On the other hand, reciprocal is represented by -kee-, stative by -akse- and impersonal by -ki-, all of which are affixed to the verb root either as prefixes or suffixes. The effect of such operations is the change of the morphological structure of the host verb as well as the addition or reduction of arguments.

Keywords: Verbal extensions, morphemes, arguments, theta theory

Introduction

Kipsigis belongs to Kalenjin linguistic family. The Kalenjin languages belong to the Southern Nilotic group of the Eastern Sudanic branch of the Nilo-saharan language family, which also encompasses Tugen, Nandi, Keiyo, Sabaot, Okiek (Ndorobo), Pokot (Pakot) and Terik, Towett, T. (1979).

Whiteley (1974) notes that the most common basic word-stem shape in this language is CVCⁱ, He further observes that the morphological classes of verbs may be established with distinctive grammatical and tonal behavior. Verbal derivation by suffix is also common with the underlying ideas implying motion towards or away from etc. The word order in the language is VSO with considerable amount agglutination.

2.0 Kipsigis Verbal Extensions

Kipsigis can distinguish two forms of verbal extensions; those that increase the valence (argument increasing) and those that decrease valence (argument reducing). The derivational morphemes that increase the valence include applicatives and causatives while the devices that reduce the valence are reciprocals, statives and impersonals. Moreover, these morphemes can be stacked together so that there can be co-occurrence of; applicative-reciprocal-reflexive, causative-stative, Impersonal-applicative-reciprocal and impersonal-stative. While discussing Quechua language, Muysken (1988), notes that several other languages supply evidence that valency-changing operations can be combined freely, though they may be subject to some sequential constraints. This explains the reason why some of these elements do not co-occur and those that co-occur have a fixed order, Baker (1985). In this study, we are going to describe the nature of these verbal extensions by looking at both its distributional and structural properties as well as highlighting the arguments that have either been increased or reduced as per the theta theory.

2.1 The Theta Theory

Theta theory is a sub-theory in Government and Binding (GB) that is concerned with the assignment of semantic roles to the sentential arguments (Horrocks, 1987).

The theory is guided by the principle of the theta criterion, which requires that each argument must bear one and only one theta role, and that each theta role must be assigned to one and only one argument. The theta criterion according to Horrocks (1987) is made to apply at all levels of syntactic representations by the projection principle. This principle demands that syntactic representations must be projected from the lexicon because they observe the subcategorizing properties of the lexical item in question, (Radford, 1988).

2.1.1 Thematic Roles

Thematic roles are abbreviated as theta roles. These are semantic roles placed by arguments and may be among others, theme, agent, patient, benefactive, goal, experiencer etc. Below are some of the thematic roles that are associated with different syntactic arguments.

Thematic roles	Description
1. Agent	One who performs the action.
2. Theme	The one thing that undergoes the action.
3. Location	The place where the action happens.
4. Benefactive	One who receives the action as denoted by the verb.
5. Goal	The place to which the action is directed.
6. Source	The place to which an action originates.
7. Instrument	The means by which an action is performed.
8. Experiencer	One who perceives something
9. Causative	A natural force that causes change
10. Possessor	One who has something

Table 1: Description of Theta Roles in Theta Theory

Fromkin et al (2002)

Depending on the kind of argument-changing process applied to the verb in Kipsigis, some of the above theta roles are affected.

2.2 Valence Increasing Devices

In this section, we are going to give brief description of argument-increasing devices in Kipsigis. The language has two forms of these mechanism; applicative and causatives. Applicative are realized as morphemes while causatives occur both as affixes and a lexical item.

2.2.1 Applicative

Shibatani (1996) notes that an applicative is a grammatical element –verbal affix that increase valence. This means that an applicative has been understood as a valence increasing mechanism where intransitive roots become transitive, transitive become ditransitive and so on. Applicative licenses a semantic role not normally subcategorized for by the lexical verb when appearing outside a particular applicative (instruction), as a core syntactic argument.

In Kipsigis, this extension exemplifies four different morphological realizations which apply to the action described in the verb to someone or something. Applicatives have an effect of changing the syntactic properties of the verb change, where an applied object is introduced. In most scenarios, the new object has different semantic realizations.

Applicatives in Kipsigis include: benefactives, -w- and -chi-, locative -y- and instrumental -en-.

2.2.1 Benefactive

Benefactive can be described as a valence increasing operation that brings a peripheral participant onto center stage by making it a direct object which generally becomes the beneficiary of the action denoted by the verb, Payne (1997). Benefactive in Kipsigis as mentioned earlier is expressed in two forms; -w- and -chi- morphemes.

i.	-w-					
1.	Ki-	i-	rir-	W-	an	
	Pst	2sg/Nom	cry	Ben	1sg/Dat	
	You cr	ried for me.	2		C	
2.	Ki-	i-	cheng-	W-	ech	got
	Pst	2sg/Nom	search	Ben	1pl/Acc	house-Dat
	You se	earched for us a h	nouse.		-	

The two sentences show the benefactive morpheme–w-being embedded in the verbal structure. Sentence (1) has intransitive root –rir- 'cry' while structure (2) has transitive verbs -cheng- 'search'. The applicative –w- in Kipsigis when affixed to the verb allows otherwise intransitive root to accommodate an accusative NP i.e –an-'Me' in example (1) and -eech- 'us' in (2). The syntactic expression of semantically peripheral argument is added thus increasing the valence of the verb by one. When the applicative –w- is suffixed to the verb, it has to co-occur with an object pronominal suffix and not a lexical NP because of its structure. It is thus selected by given types of verbs and not others. From the examples, intransitive and transitive verbs select this affix in an applicative construction and not ditransitive. In a sentence structure, the –w- morpheme represents a condition of doing something 'on behalf of'.

ii. –chi-

Consider:

(3)	Ki-	yat-	chi	Murenet	Chepyoset	got
	Pst	open	Ben	man-Nom	woman-Acc	house-Dat
	The m	an opene	ed the ho	ouse for the wom	an.	
(4)	Ki-	mwet-	chi	Chepyoset	murenet	ngoroik
	Pst	wash	Ben	woman-Nom	man-Acc	cloths-Dat

The woman washed the clothes for the man.

A transitive verb ideally requires two arguments. However, with the incorporation of an applicative morpheme in Kipsigis, there is an addition of an argument to become a ditransitive. The above examples presents a peculiar feature in that the verbs cannot accept more than two arguments without an applicative. The applicative in such cases licenses a benefactive argument, Chepyoset 'woman' and murenet 'man' in (3) and (4) respectively. This characteristic further illustrates why the applicative is a valence increasing morpheme.

On the other hand, ditransitive verb requires three arguments, but with the affixation of the applicative, the number of participants increases to four.

(5)	Ki-	i-	nde-	chi	kitaphut	meset	konetindet	
	PST	2sg/Nom	put	BEN	book- Acc	table-Loc	teacher- Dat.	
You put the book on the table for the teacher.								

In (5), three arguments have been increased to four with the affixation of –chi- morpheme. In other words, a benefactor konetindet 'teacher'has been introduced to the structure. Therefore, the benefactives in Kipsigis incorporates the benefactive theta role as specified by the theta theory. For example in (1), the agent I 'you', is benefiting from the action of crying from –an 'me', where –an- 'me' is crying on behalf of –i- 'you'. The same benefit is accrued in examples (2), (3),(4) and (5).

2.2.1.2 Instrumental -en-

Instrumental applicative in Kipsigis is represented by morpheme -en-, which operates to license the core status of otherwise peripheral participants. This morpheme is associated with a broad range of semantic roles. When used, it expresses a notion of 'by means of'.

Consider:

(6)	sir-en Peter Write-Instr Peter is a writir	baruet Peter-Nom ng a letter with a	letter-Acc	pen- Dat
(7) a.	ki-a-pir Pst-1sg/Nom I caned the chil			
b.	ki-a-pir-en Pst-1sg/Nom-I I caned the chil	lakwet nstr child-A d with/using a st		

In examples (6) and (7), the transitive verbs sir 'write' and pir 'cane' normally take one object, with the suffixation of the instrumental morpheme –en-, the same verb license the addition of an instrumental object in kalamit 'pen' and kirokta 'stick' respectively.

The form of the morpheme –en- can also denote a number of meanings and interpretation. This is exemplified in the following examples:

(i) (8).	Meanir a.	ng of 'from' ko-phet Pst-lost book-N The book got lo				
	b.	ko-phet-en Pst-lost-Instr The book got lo	bukuit book-N ost from		kiprop Kiprop	-Acc
(ii) Me	aning of	'to'				
(9).	a.	kee-et Inf -refuse to refuse food	amitwo food-A	•		
	b.	kee-et-en Inf -refuse to refuse food t	amitwo food-A o a child	cc	Lakwet child-A	
(iii) Me	eaning of	f 'on'				
(10).	a.	ru-e Sleep-Asp Kiphet is sleepi	kiphet kiphet- ng.	Nom		
	b.	ru-e-en sleep-asp-Instr. Kiphet sleep or		kiphet Kiphet- n (a tradi		muito skin-Dat nat)
(iv) Me	eaning of	f 'for'				
(11).	a.	ki-a-rir Pst-1sg/Nom-cr I cried	сy			
	b.	Ki-a-rir-en Pst-1sg/Nom-ca I cried for the p		piik people-	Dat	

(v)	Meanir	ng of 'in'		
12.	a.	ki-a-um		
			hade(take shelter)
		I shaded/took sl	helter.	
	b.	ki-a-um-en	got	_
		Pst-1sg-shade-I		
		I shaded (took s	shelter) in the ho	use
(vi) Me	eaning of	f 'over'		
13.a.	ki-a-rir			
		Pst-1sg/Nom-cr	зy	
		I cried		
1.		V: a sin an		1.1
b.		Ki-a-rir-en	w. Inota	lakwet child-Dat
		Pst-1sg/Nom/cr I cried over the	•	china-Dat
(::)	Maania		enna.	
(vii)		ng of 'of"		
14.	a.	indo-i chebet	Chalast	
		Infront-Asp		
		Chebet is infror	1L	
	b.	indo-en	Chebet	Chela
		infront-Instr	Chebet	-Nom Chela-Dat
		Chebet is infror	nt of Chela.	

An instrument according to theta theory is the means by which an action is performed. In example (6), kalamit 'pen' is the instrument by which an action of sir 'write' is performed by the agent Peter. The instrumental role has been licensed by the conjugation of the instrumental morpheme –en-. While in example (7b), kirokta 'stick' is the licensed instrument by which the agent –a- 'I' uses to cane the child, it is also clear when the syntactic structure in example (7a) is compared with (7b).

2.2.1.3 Directional -y-

The directional applicative in Kipsigis is denoted by the morpheme -y- .This morpheme is glued as a suffix to the verb. The affixation of a directional morpheme licenses the addition of anargument to the structure, while at the same time denoting the direction of the implied object or 'thing', from the speaker.

The following structures help to illustrate the applicability of a directional applicative:

15.a.	Ki-nerech Pst- angry The person was	chito . Person-Nom angry	
b.	Ki-nerek-y-in Pst- angry-Dir-2 The person was	2nd/Sg/Dat angry towards y	chito . Person-Nom you.
16.a.	Ki-mus Pst-come early Peter came earl		
b.	Ki-mus-y-an Pst-early-Dir-1s Peter came earl	U	Peter Peter-Nom

Structures (15) and (16) shows that the derivational morpheme -y- which marks directional in the language occurs immediately after the main verb and also licenses a pronominal object marker to co-occur with it and not a lexical NP. The affixation of this morpheme then marks the addition of one argument structure.

Theta theory provides the concept of a goal to imply the place or person to which the action is directed to. Kipsigis marks the semantic role of a goal through the directional morpheme -y-. In example (15a) there is lack of a goal to which the action is directed to while in (15b), the action of anger is directed to \neg -in- 'you', who then becomes a goal after the addition of the directional morpheme -y-. The same role of a goal is evident in structure (16.b).

2.2.2 Causatives

Causation is viewed as a device for creating a verb form meaning "to cause X to verb" from a form "X verbs", Spencer (1991:24). It is under such an argument that a causative construction can be symbolized as: CAUSE (x, P) = x causes P (Payne, 1997:176). Causative in the language is divided into three types: morphological, lexical and analytic. The first two types are considered as valence increasing operations both in the syntactic and semantic level while the third only increases valence when looked at semantically.

In Kipsigis, causation is marked by three extensions. These are morphological causatives -e- and -si-, and a lexical causative -yai- .

Consider the following examples:

		\mathcal{O}	1			
(17)	Ki-mw	et-e	Mauwe	ek		
	Pst-wa	sh-Caus	flowers-Nom			
	The flo	owers are	e being washed			
(18)a.	ru-i-si		lakwet			
	sleep-	Caus	child-Acc			
	make/c	ause the	child to sleep.			
b.	lany-si		ketit	Lakwet		
	climb-		tree-Acc	child-Acc		
	make/c	ause the	child to climb a	tree.		
19)	Ki-	yai	Goruchon	Lakwet	ko-lany'	ketit
,	Pst	made	Mother-Nom	Child-Acc	inf-climb	tree-Acc
	The mo	other ma	de the child to c	limb a tree.		

The morphological causative not only applies to intransitive verbs, but also transitive. From the above examples, there are two ways in which the causative increases valence: morphological and lexical. The morphological causative is the most productive in the language. What is notable is that the occurrence of the two causative elements seems to be in free variation.

There are several forces that cause change brought about by the addition of causative morphemes –e-, -si- and lexical yai to the verb. When causative morphemes are applied to the verb, it causes the change of state or action of the experiencer as in examples (17-19).

2.3 Valence Reducing Devices

There are three types of valency-reducing operations in Kipsigis: reciprocal, stative and impersonal. These are formed by adding the affixes –kee,-akse, and prefix -ki- respectively to a verb stem. We are going to explain in detail in the following sections.

2.3.1 Reciprocal

Reciprocal refers to a form indicating that the action of the verb is reciprocated, done 'to one another'. Reciprocal in the language under study is marked by morphemes –kee- and –yo- which are suffixed to the verb. The following structures help us put this feature into focus.

In Kipsigis, the reciprocity for instance can comprise of situations in a transitive construction such as:

(20).a.	a- 1SG/NOM you.	cham- love	in 2SG/ACC
b.	 i- 2SG/NOM ved me.	cham- love	an 1SG/ACC
c.	 ki- 1PL/NOM red each other.	cham- love	kee REC

In order to encode a situation in (20a and b), we combine the expression for the two simple situations with a reciprocal –kee. This means that a reciprocal construction in Kipsigis is formed by marking the verb with a suffix –kee. By comparing examples in (20a-b) and its' (c) counterpart, it can be seen that –kee is added to the base form of the verb. The situation in (20c) therefore implies that the clause describes a reciprocal situation and not just the situation denoted by the verb –cham 'love' without repeating the verb for each simple situation, (i.e. in 20a. and b). The conjugation of a reciprocal –kee as observed also brings forth the incorporation of a conjunction to realize a plural NP subject. Another feature worth noting is that when we compare the reciprocal constructions and its' non-reciprocal structure, we note that the number of arguments decreases once the reciprocal marker is 'glued' to the verb. In example (20a & b), the verb takes two arguments-i.e. a subject, a 'I' and I 'You' and an object, -in-'You' and an 'I' respectively. In structure (20c), the same verb marked by –kee takes only one plural argument. This illustrates that reciprocal reduces the valence of the verb by demoting the object, (i.e. transitivity of the clause is lowered). The following example further illustrates the syntactic structure of a reciprocal construction.

(21) a.	Ki-	mas	kibet	chebet			
	PST	hit	Kibet-NOM	Chebet-ACC			
	Kibet hit chebet.						

b.	Ki-	mas-	kee	kibet	ak	chebet	
	PST	hit	Rec	kibet-	Conj	chebet-NOM	
	Kibet and Chebet hit each other.						

When examples in (a) and (b) are compared, it can be observed that the suffix –kee- is conjugated to the base form of the verb as a suffix. The reciprocal is also adjacent to the verb. When this morpheme is affixed to the verb, a conjunction –ak- is introduced where it adjoins the NPs. The reciprocal –kee- in the verb is anaphorically then bound to the NP as an aspect of syntactic binding.

In addition to the structure of the reciprocal morpheme, we also realize that the syntactic configuration in which the reciprocal form appears are largely similar in that the reciprocal requires a plural or group-denoting subject NP. This means that the reciprocal derives a one-place predicate from a two place predicate and two-place predicate from a three-place predicate.Generally, it reduces by one the array of syntactic arguments associated with the non-reciprocal predicate.

Another syntactic property of the reciprocal is one related to transitivity of a reciprocal construction. From the data, -kee- attaches to transitive verbs as in -cham- 'love' in (20) and -mas- 'hit' in (21). It is also attached to ditransitive verbs like -gochi- 'give' as in example (22).

(22) ki-gochi-kee lagok amitwogik Pst-give-Rec Children Food The children gave each other food.

The reciprocity in example (22) denotes that the subject lagok 'Children' are giving each other food. In this case, participants are identified as a whole, instead of individuals, and perform an act jointly thus the reciprocal –kee-express a collective situation.

When the reciprocal morpheme is attached to intransitive verbs like sleep or die, its semantic interpretation refers to a situation that is done 'on behalf of' which is a property of an applicative since a reciprocal cannot occur on its own in a structure.

(23) ki-ru-chi-kee lagok Pst-sleep-Appl-Rec Children The children slept on behalf of each other.

In such case, the interpretation would imply that each child was sleeping on behalf of the other, may be in turns. The suppression of the syntactic arguments of the experiencer and theme is realized in reciprocal constructions where the demotion leads to an agent which denotes a plural form or a group denoting NP.

2.3.2 Stative

Stative forms in Kipsigis verbs signal a given condition or a state of being without a reference to the semantic roles of an agent or actor. It shows that whoever or whatever is concerned is able to receive an action irrespective of whether there is a subject or not. It is the recipient of the action that is endowed with the possibility of that action taking place.

Consider:

(24) a.	Ki-	nap	Chepto		ngoriet			
	PST	sew	girl-Nom		dress-Acc			
	The girl sewed the dress.							
b.	Ki-	nap-	akse	ngoriet				

PST sew Stat dress The dress was 'sewable'.

(25) a.		a- 1Sg/No	om	am eat	amitwogik food-Acc
	I ate the	e food.			
b.	Ki-	am-	akse	amitwo	gik
	PST	eat	Stat	food	-
	The foc	The food was 'eatable'.			

Whoever is concerned in (24.b) and (25.b) to receive an action is marked by a stative marker –akse-. The stative form of the verb in Kipsigis is made by suffixing it to the verb stem. Kipsigisstative suffix almost corresponds to the Swahili morpheme –ka-. In Kipsigis, when a stative marker is applied, the structure of the verb as well as other arguments is affected. The verbal morphology is altered as can be observed with the verb kinap 'sewed' in (24.a) to kinapakse 'sewable' in (24.b). The same applies to example (25.a) and (b) where the verb changes from kiaam 'ate' to kiamakse 'eatable' respectively.

Affixation of a stative morpheme alters the syntactic structure of the sentence as well. A look at the non-stative structures and the stative constructions shows the number of arguments to have been reduced. In (24.b) and (25.b) the agents chepto 'girl'and -a-'l' have been elided. The implication of such deletion is that the stative morpheme detransitivises the verb from being a transitive to intransitive. Such a process leads to arguments in object position which are assigned the theta role of theme to occupy the agent position.

In cases where there are three arguments, stative morpheme also alters its syntactic structure.

Consider:

(26) a.	Ki-	nde	Lang'a	it raphi	isiek	moph	ıget
	Pst	put	Lang'a	t-Nom	mone	y-Acc	pocket-Loc
	Lang'a	t put the	money	in the pocket.			
b.	Ki- PST	nde- put	akse Stat	raphisiek money-Acc	moph pocke	U	
	The money was 'putable' in the pocket.				et.		

In (26.a), the morphology of the verb is altered with the addition of a stative marker –akse- from ki-nde'put' (two morphemes) to ki-nde-akse'putable' (three morphemes). In effect the syntactic structure is also altered. The argument structure is reduced from three in (26.a) to two in (b). The agent Lang'at has undergone ellipsis. The theme raphisiek 'money' has alternatively been moved from the object position to the subject position. The locative mophuget 'pocket' which initially occupied the indirect object position now occupies the direct object position of the A-structure.

2.3.3 Impersonal

Impersonals are defined cross-linguistically as constructions in which the element that normally assumes the 'subject' function in topic-comment statements is either downgraded or completely suppressed. Siewierska (2008) observes that, in literature, there exist both structural and communicative-functional characterizations of "impersonal constructions". A function-first approach grounds the definition of an impersonal in agent defocusing. On the other hand, a structure-first approach to impersonal constructions centers on the construction having either no subject or a non-canonical subject.

Kipsigis has impersonal constructions in form of a derivational morpheme –ki- which is identified on the basis of its lack of a referential subject therefore missing the agent role.

(27)	ki-	ki-	ger	Telephision		
	PST	Impr	see	Television		
	The television was seen.					

- (28) ki- ki sup chorik PST Impr follow thieves The thieves were followed.
- (29) ki- ki- al- garit PST Impr buy car

The car was bought.

As mentioned earlier, impersonal constructions refers to a sentence clause or the verb form, where the grammatical agent is typically the "recipient" or "goal" of the action denoted by the verb In Kipsigis morphology, the impersonal is marked by –ki- morpheme, and has repercussions on the syntactic structure of a sentence. What we note also is that the impersonal marker is prefixed to the verb as opposed to other form of extensions which are suffixed. Its position is specifically before the verb root but after the tense morpheme.

In the language, in impersonal constructions, the NP in the theme position moves to the position normally occupied by NP agent while the agent is demoted.

2.4 Conclusions

In this work, we have described the verbal extensions in Kipsigis.We have shown that Kipsigis has two forms of extensions; argument-increasing and argument-decreasing. Argument-increasing devices are of two types; applicative and causative. The applicative morphemes are the most productive of all the extensions. Applicative are in form of benefactive–w- and –chi-, instrumental –en- and directional –y- which, apart from having morphosyntactic implications, it has a wide range of semantic interpretations. Causative are expressed as morphemes –i- and –si-and a lexical element yai.

Argument-decreasing devices include reciprocal –kee-, stative –akse- and impersonal –ki-. The operations have a way of reducing the argument structure of the verb in question.Regarding the position of these verbal extensions, we established that most of them are suffixed to the verb except the impersonal marker which is prefixed.

The sematic roles presented in the theta theory presented a formal way in which the arguments could be interpreted. Specific θ -role tends to be added to the syntactic structure after the incorporation of the verbal extension or elided from the structure.

References

- Baker, M.C. (1985). The Mirror Principle and Morphosyntactic Explanation. Linguistic Inquiry Journal, 16.3 pp 373-416
- Baker, Mark C. (1988), Incorporation: A Theory of Grammatical Function Changing. Chicago: The University of Chicago Press
- Black, C. (1998). A Step by Step Introduction to Government and Binding Theory of Syntax. Mexico: Summer Institute of Linguistics
- Fromkin, V. et al (2003). An introduction to Language, 9th ed. USA: Lyn Uhl publishers.
- Haegeman L. (1994). Introduction to Government and Binding Theory (2nd ed) Cambridge: Blackwell Publishers
- Horrocks, G (1987). Generative Grammar. New York: LongmanUniversity Press.
- Hyman, M.L. (2007) 'Niger-Congo Verb Extensions: Overview and Discussion.'
- In Payne, D.L. & Rena, S. eds. Selected Proceedings of the 37th Annual Conference on African Linguistics, pp149-163.Somervilla
- Muysken, Pieter (1988) "Affix Order and Interpretation in Quechua". In:Everaert, Martin & Evers, Arnold & Huybregts, Riny & Trommelen,Mieke (eds.), Morphology and Modularity. Dordrecht, Providence/RI:Foris (Publications in Language Sciences 29), 259-279
- Payne, E.T. (1997) Describing Morphosyntax: A Guide to Field Linguists. Cambridge: Cambridge University Press
- Radford, A. (1988). Transformational Grammar. United Kingdom: Cambridge University Press.
- Shibatani, M. (1996). Applicatives and Benafactives: A Cognitive Account. Amsterdam: John Benjamins
- Siewierska, A. (2008). Introduction: Impersonalization from a subject-centred vs. agent-centred perspective. Transactions of the Philological Society 106: 115–137.
- Spencer, A. (1991). Morphological Theory: An Introduction to Word Structure in Generative Grammar. Basil: Blackwell.
- Towett, T. (1979). A Study of Kalenjin Linguistics. Nairobi: Kenya Literature Bureau.
- Whiteley, W.H. (1974). Language in Kenya. Nairobi: Oxford University Press

¹ Abbreviation used in glossing include:Acc-Accusative; Appl-Applicative; Asp-Aspect; Ben-Benefactive; Caus-Causative; CVC-Consonant-Vowel-Consonant; Dat-Dative; Dir-Directional; Instr-Instrumental; Nom-Nominative; Pl-Plural; Pst-Past tense; Rec-Reciprocal; Sg-Singular; Stat-Stative; V-Verb; VSO-Verb Subject Object; 1Sg-1st person singular; 1Pl-1st person plural; 2Sg-2nd person singular; 2Pl-2nd person plural; 3Sg-3rd person singular; 3Pl-3rd person plural; θ-Theta