

THE DIACHRONIC DEVELOPMENTS OF KI CONSTRUCTIONS IN THE LUO AND KOMAN FAMILIES

Richard Griscom

1 Diachronic syntax: The comparative method, grammaticalization, and construction grammar

The field of diachronic syntax has its roots in the comparative method, a means of determining language relationship and change through the comparison of individual features across different languages. The comparative method has been in use in various ways since antiquity, but was first refined and standardized during the 19th century by Rasmus Rask, Karl Verner, Jacob Grimm and the neogrammarians following Sir William Jones' observations of the similarities between Sanskrit, Latin, and Greek in 1786. Schleicher (1874) was the first to posit reconstructed forms for a proto-language based on sound correspondences between Indo-European languages. Despite recent critique of its limitations, the comparative method stands out as the most capable approach of determining genetic relationships between languages (Cambell & Poser 2008).

Until the 20th century, the field of historical linguistics was primarily focused on the comparison and internal reconstruction of phonological features and cognate morphological and lexical elements. The reconstruction of syntactic structures was not seen as a worthwhile endeavor by the neogrammarians, and it was not until 1912 when Meillet first proposed grammaticalization as a process through which lexical items become integral to the grammatical system (DeLancey 2004). Since the 1970's, grammaticalization has been extensively researched both cross-linguistically and within individual languages (Heine & Reh 1984; Traugott & Heine 1991; Hopper & Traugott 1993).

More recently, the development of theories of construction grammar has had a significant impact on approaches to diachronic syntax. Authors including Goldberg (1995) and Croft (2001) have argued that the symbolic units of language must necessarily include compositional schemas, rather than merely atomic units, and that these schemas must be meaning-bearing units in their own right. The relationship between diachronic construction grammar and grammaticalization remains to be clarified (Noël 2007), but within the past decade diachronic construction grammar has won increasing recognition as a viable means of reconstructing the syntactic structures of proto-languages and the stages of development that lead to synchronic syntactic patterns. The present study takes such an approach in order to further understand the relationships between grammatical constructions in two language families: Luo and Koman.

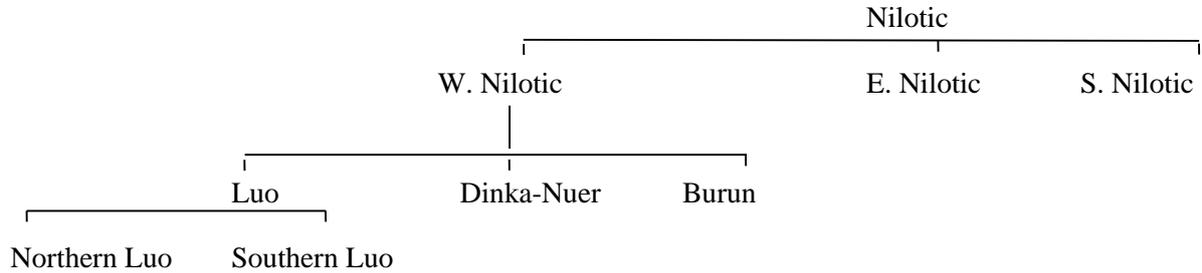
2 Language background

The Luo family is one of the three primary families of Western Nilotic (Dinka-Nuer, Burun, Luo), and itself is divided into two groups: Northern Luo, and Southern Luo (Storch 2005). The Northern Luo languages are spoken primarily in South Sudan and on the Sudan-Ethiopia border and include Shilluk, Belanda Bor, Thuri, Luwo, Anywa, and Pãri. The Southern Luo languages are spoken mostly in Northern Uganda and Western Kenya, and include Adhola, Kumam, Dholuo, Alur, Lango, Acholi, and Labwor. The categorization of the Northern Luo and Southern Luo languages within the Nilotic family is presented in Figure 1.

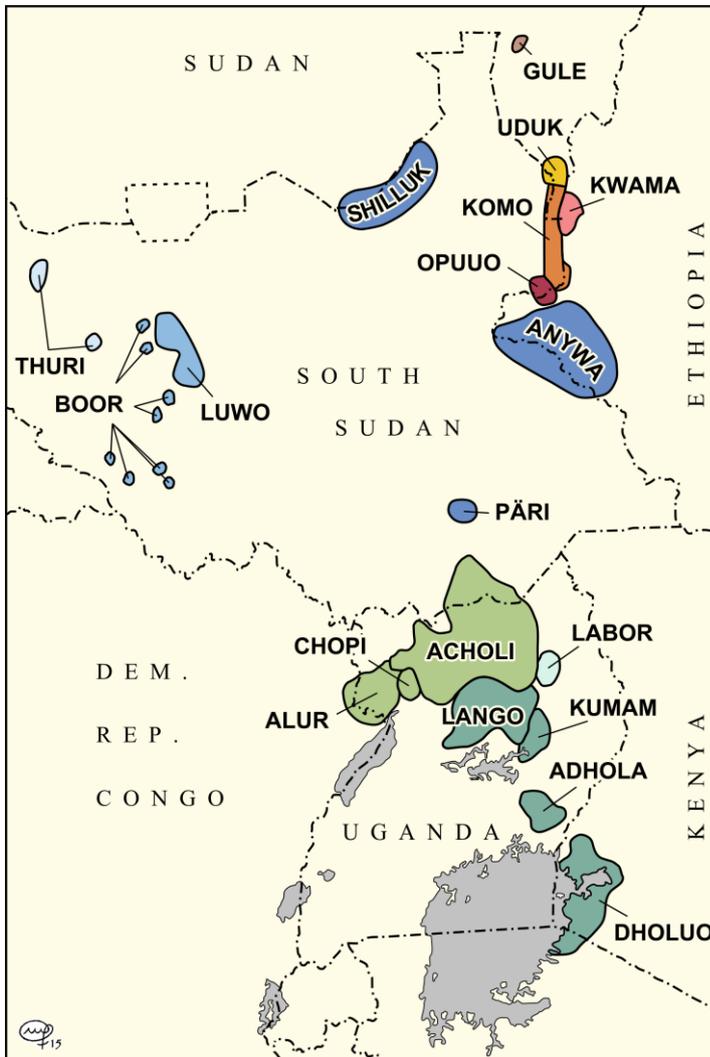
The Koman family consists of 5 languages (Uduk, Kwama, Komo, Opuuo, and Gule), spoken near the border of South Sudan and Ethiopia. The Koman family has been both included (Greenberg 1963; Bender 2000; Ehret 2001; Blench 2012) and excluded (Dimmendaal 2008) from the Nilo-Saharan phylum by various scholars due to the lack of regular correspondences and limited data. When it has been included in the phylum, it has most often been described as an early offshoot from the other Nilo-Saharan languages (Greenberg 1963; Ehret 2001; Blench 2013). The relationship between the Koman languages and the Luo languages is thus distant at a minimum. The Koman languages are, however,

spoken in an area that is adjacent to the areas in which the Western Nilotic languages are spoken. Map 1 shows the areas inhabited by the speakers of each of the Western Nilotic languages with the area inhabited by the speakers of the Koman languages indicated.

Figure 1: The classification of the Luo languages with reference to the Nilotic family.



Map 1: The Western Nilotic languages (Storch 2005), with the area of the Koman languages.



3 KI Constructions

Within both the Luo and Koman families, there are numerous constructions that include a preposition *kV* (most commonly /ki/, /kɪ/, /gi/, /gɪ/, or /ke/), which in some languages reduces to a cliticized form *k=* before constituents that begin with a vowel segment. The three constructions that will be discussed in this paper include:

- Basic KI Construction
- Coordinate NP KI Construction
- Verbal complementation KI Construction

The Basic KI Construction is the most pervasive of these constructions and most often appears post-verbally. It contains a noun phrase that codes numerous semantic roles and functions, including Instrument, Manner, Time, and the Theme of antipassive constructions. This construction is represented using the structural schema in Figure 2.

Figure 2: The Basic KI Construction.

[KI NP]

Although the Basic KI Construction is present in all of the languages described in this study, some of the semantic properties mentioned above are restricted to certain language groups. In the examples below, the various functions of the Basic KI Construction are discussed with reference to both the Luo and Koman families. The labels S, A, O, and KI are used for the single participant of an intransitive clause (including antipassive constructions), the most active argument of transitive clauses, the least active argument of transitive clauses, and the preposition taking the form *kV*, respectively (Dixon 1994; Comrie 1981). R and T refer to the Recipient and Theme of ditransitive clauses. It should be noted that these labels are not intended to reflect crosslinguistic categories, as argued by Dryer (1997).

Instrument¹

In these examples, the Basic KI Construction is used in both intransitive and transitive clauses to code the Instrument with which an action is completed.

Anywa (Northern Luo)

- | | | | | | |
|-----|---|----------|--------------|----------------|-----------------|
| | A | O | V | [KI NP] | |
| (1) | ōbúrré | riṅó | ā-cám-gí | kī | lwēt-gí |
| | children | meat | PST-eat-3.PL | OBL | finger:PL:mN-3P |
| | ‘The children ate the meat with their fingers.’ (Reh 1996: 320) | | | | |

Päri (Northern Luo)

- | | | | | | |
|-----|---|----------|----------|----------------|--------------|
| | O | V | A | [KI NP] | |
| (2) | thiir | á-tiic | cícò-ê | kí | pál -à [sic] |
| | spear.shaft | C-make | man-ERG | PREP | knife |
| | ‘The man made the spear shaft with a knife.’ (Andersen 1988: 303) | | | | |

Dholuo (Southern Luo)

- | | | | | | |
|-----|--|----------|----------|----------------|---------|
| | A | V | O | [KI NP] | |
| (3) | Oloo kunyo | bur | gi | beti | |
| | Oloo | dig-IMP | hole | with | machete |
| | ‘Oloo is digging a hole with a machete.’ (Okombo 1997: 52) | | | | |

Acholi (Southern Luo)

- | | | | |
|-----|--|----------------|-------|
| | V | [KI NP] | |
| (4) | aṅolo | ki | pala |
| | Icut | with | knife |
| | ‘I cut with the knife.’ (Malandra 1955: 151) | | |

¹ Some glosses have been slightly altered for ease of comprehension. A full list of abbreviations is included at the end. Original glosses for KI prepositions is retained.

Anywa (Northern Luo)

[KI NP] V-s

- (12) kī wáɫɫ rée ā-kwál-é
 KI night RFL:3.SG PST-steal-3.SG
 ‘He stole away at night.’ (lit. ‘He stole himself at night.’) (Reh 1996: 502)

Päri (Northern Luo)

S V [KI NP]

- (13) lwàak bùt `-ò kí wáɫɫ`
 people sleep-SUF PREP night
 ‘People sleep at night.’ (Andersen 1988: 304)

Shilluk (Northern Luo)

S V [KI [NP]]

- (14) gé á-bēēd kī cyâŋ mō gír
 3.PL PST:E-stay:1.SG KI day REL:PL many
 ‘They remained many days (like this)...’ (Miller & Gilley 2001: 61)

Kwama (Koman)

V-s [KI NP]

- (15) só-ní-gé gí sùgùn
 spear-1.SG.SBJ.PERVV-3.M.SG.OBJ at night
 ‘I spear it (the pig) at night.’ (Kievit & Robertson 2011: 39)

Comitative

In these examples, the Basic KI Construction is used in both intransitive and transitive clauses to code an animate or inanimate Accompaniment. This may be an Accompaniment of the S, A, or O argument.

Anywa (Northern Luo)

O V-A [KI NP]

- (16) jáath ā-kág-wá ki cókwā
 tree PST-split- OBL brother:our
 1.PLEX
 ‘My brother and I split the tree.’ (Reh 1996: 320)

Päri (Northern Luo)

[]o V-s [KI [NP]]

- (17) còow árió á-nèen-á kí dháagò áciéló
 men two C-see-1.SG PREP woman one
 ‘I saw two men and one woman.’ (Andersen 1988: 303)

Anywa (Northern Luo)

V O [KI-NP] [KI NP]

- (18) òo kith cèŋŋ-é k-óogùudi [kī tīet-ē]
 and put hands-3.SG KI-bracelets KI feet-3.SG
 ‘(and he) put bracelets on his hands and feet.’ (Reh 1996: 525)

Labwor (Southern Luo)

S V [KI NP]

- (19) én tíyó kí món
 3.SG work.IMV PREP women
 ‘He works with the women.’ (Heine & König 2010: 76)

Shilluk (Northern Luo)

- S** **V:_{ANTI}** **[KI NP]**
 (26) jāl-ání á-yēt kī wúnō
 man-REF PST:E-TWIST:ANTI KI rope
 ‘The man twisted some rope.’ (Miller & Gilley 2001: 43)

Luwo (Northern Luo)

- V:_{ANTI}** **[KI NP]**
 (27) ø-à-tεεdò ké kádò
 3.SG-PERV- OBL broth.SG
 cook:ANTI
 ‘S/he cooked some broth.’ (Storch 2010: 9)

The Coordinate NP KI Construction

The Coordinate NP KI Construction is used for the coordination of two NPs, including the coordination of numerals for some counting systems. Instances of this construction can also be nested within each other to create a long string of coordinate constituents (see 28). The structure of this construction is represented by the schema in Figure 3. Below are examples of the Coordinate NP KI Construction in the Luo and Koman families.

Figure 3: The Coordinate NP KI Construction.



Anywa (Northern Luo)

- [NP KI NP KI NP]-s** **V**
 (28) mòò kī rídó kī thómmó dī-jáábó nāacíel
 flour KI wort KI yeast DEO-mix.PASS together
 ‘The flour, wort, and yeast are mixed together.’ (Reh 1996: 547)

Anywa (Northern Luo)

- [KI NP]**
 (29) gēn-ārójn k-ōobúurè
 3.PL-PST-dive OBL-children
 ‘He and the child dived.’ (Reh 1996: 536)

Belanda Boor (Northern Luo)

- [NP KI NP]**
 (30) yɔmɔ ki gifí mu ndingili
 wind KI thing REL round
 ‘tornado’ (von Heyking 2010: 51)

Dholuo (Southern Luo)

- [NP KI NP]_A** **V** **O**
 (31) otieno gi wuon gero ot
 Otieno and father:POSS build house
 ‘Otieno and his father are building a house.’ (Okombo 1997: 64)

Alur (Southern Luo)

- V-IMP** **[NP** **KI NP]_o**
 (32) cıdh ilwoŋ Bonifasiyo ku Leonardo
 go.IMP and.call B. and L.
 ‘Go call Boniface and Leonard.’ (Ringe 1949: 38)

Päri (Northern Luo)

- A V_{-ANTI} [KI NP] [KI V]
 (39) ùbúr á-póoj̃ -ò kí lwàak kí gòor
 ubur C-teach:M:ANTI-SUF PREP people PREP writing
 ‘Ubur taught the people how to write.’ (Andersen 1988: 304)

Luwo (Northern Luo)

- S V [KI V]
 (40) riijen caa ke⁵ rɔbo ir nyethenmen
 men resume and talk matter girls
 ‘...(the) men resume (to) talk to the girls.’ (Santandrea 1977: 563)

Shilluk (Northern Luo)

- S V [KI V]
 (41) é bàn kí tèr chanduk
 3.PL refuse KI carry box
 ‘They refused to carry the box.’ (Westermann 1912: 38)

Komo (Koman)

- S V [KI V]
 (42) à=dàw ja-r kumà kí pó gi kót
 SG=baboon go-3.SG.M to in garden PURP till
 ‘The baboon went (in) to the garden to till (the ground).’ (Otero, p.c.)

Opuuo (Koman)

- S V [KI V]
 (43) utəni ka:jkaratʃ̣e ga nata
 he PERV- agree PART work
 ‘He agreed to work.’ (Kebebw 2010: 80)

Uduk (Koman)

- S AUX V [KI [V]]
 (44) wàk^hkí é miní ó kí c^hāb ē īpābǎ-m pīní
 COND 2.SG AUX say KI stay eye PL-father-LNK POSS.2SG
 ‘If you wish to stay with your father...’ (Killian, p.c.)

4 Summary of results

A summary of the constructions detailed in the examples above is provided in Table 1 below. The three right-most columns represent the distribution of the three KI Constructions, respectively. A plus sign (+) indicates that the language uses a particular construction and a minus sign (-) indicates that it does not. A question mark (?) is used where data was insufficient enough to determine the occurrence of a construction or the validity of the data was questionable. If an attested construction exists and is indicated by a plus sign, the form of the cognate KI preposition is provided in parenthesis. If no such construction exists in a given language, then the alternate non-cognate form of a corresponding construction in the language is provided (e.g. Alur *ni*).

Nearly all of the languages surveyed in this study, including both the Luo languages and the Koman languages, feature both the Basic KI Construction and the Coordinate NP Construction. Within Northern Luo, both of these constructions appear to use the same cognate KI form, either /ki/, /ki/ or /ke/. Southern Luo exhibits a higher amount of variation from language to language and from construction to construction. The use of a voiced velar /gi/ in Dholuo is not entirely unexpected, as Dholuo is spoken in Kenya in an area that is geographically and politically separated from the other Southern Luo languages

⁵ Tone is not marked in Santandrea (1977), so it is assumed here that it is the same as the high tone *ké* described in Storch (2010).

in Uganda. The Koman languages also exhibit a higher degree of variability, and the reliability of the data is not equal to that of the Luo languages. Even so, both the Basic KI Construction and the Coordinate NP KI Construction appear to be well represented in all of the Koman languages.

The distribution of the Verbal Complementation KI Construction is limited to the Northern Luo and Koman languages. Notably, the alternate verbal complementation construction that is attested in the Southern Luo languages includes a complementizer of the form /ni/ or /ni/. A cognate complementizer (/ni/, /ni/, /nɛɛ/, etc.) is employed by the Northern Luo languages in a more general verbal complementation construction that is less lexically-restricted than the Verbal Complementation KI Construction.

Table 1: KI Constructions in Northern and Southern Luo

| family / sub-family | language | Basic KI Construction [KI NP] | Coordinate NP KI Construction [NP KI NP] | Verbal Complementation KI Construction [KI (NOM-)V] |
|---------------------|------------|-------------------------------|--|---|
| Northern Luo | Shilluk | +(kī) | ? | +(kī) |
| | (Jur) Luwo | +(ké) | +(ké) | +(ké) |
| | Anywa | +(kī) | +(kī) | +(kī) |
| | Päri | +(kī) | +(kī) | ? |
| Southern Luo | Dholuo | +(gi) ⁶ | +(gi) | - |
| | Alur | +(kɔ) | +(kɔ) | (ni) |
| | Lango | +(kèdè~kè) | +(kèdè~kè) | (ní) |
| | Acholi | +(ki) ⁷ | +(ki) | (ni) |
| | Labwor | +(ki) ⁸ | +(gín kì) | (ni) |
| | Kumam | +(kede) | ? | (bé) |
| Koman | Uduk | +(kī, kī) | +(kī) ⁹ | +(kī) |
| | Kwama | +(gi) | +(gi, gù) | - |
| | Komo | +(gi) | +(gi) | +(gī) |
| | Oquuo | ?(go) | ?(gu) | ?ga |

5 Discussion

The development of the Basic KI Construction and the Coordinate NP KI Construction

Based on the widespread distribution within the sampled languages and the general lack of lexical restrictions, both the Basic KI Construction and the Coordinate NP KI Construction appear to be of relatively old origin. Nearly every language in the survey has attested instances of both constructions, which suggests that they can be reconstructed to Proto-Luo and Proto-Koman. The reconstructions of these synchronic KI Constructions are labeled here as the *KI Basic Construction and the *KI Coordinate NP Construction. Their structures are identical to those of the synchronic constructions, as shown by the schemas in Figure 5 and Figure 6.

Figure 5: The reconstructed *KI Basic Construction in Proto-Luo and Proto-Koman.

☆ [*kI NP]

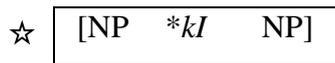
⁶ Dholuo uses *kod* for animate NPs.

⁷ Acholi uses *ki* for inanimate NPs and *ka* for animate NPs (Malandra 1955: 131).

⁸ Labwor uses *ki* for full NPs and *kod* for pronouns.

⁹ Reported by Don Killian (p.c.), but use is limited.

Figure 6: The reconstructed *KI Coordinate NP Construction in Proto-Luo and Proto-Koman.



The fact that both of the reconstructed constructions can be posited for proto-stages indicates that their development must have occurred at an even earlier time. Although there is no relevant attested data from such an early time period, diachronic typology can provide some clues as to the historical development of the Basic KI Construction and the Coordinate NP KI Construction. Stassen (2000) examined a sample of 260 languages and found a critical link between two strategies of noun-phrase conjunction: the Comitative Strategy (e.g. the Basic KI Construction), and the Coordination Strategy (the Coordinate NP KI Construction). He found that, "...with only a few exceptions, all languages in the sample appear to have the possibility of employing the Comitative Strategy." (ibid, 21).

Stassen additionally observed that, "[languages that only have a Comitative Strategy] do not have a Coordinate Strategy, but they would like to have one." (ibid, 26). He found that languages with the Comitative Strategy tended to change features or adopt new features in the direction of the Coordinate Strategy, but never the other way around. These changes often result in a two-strategy system that combines both the Comitative and Coordinate Strategies, as exemplified by the Luo and Koman languages. This is further supported by Heine & Kuteva's (2002: 80) numerous examples of the pathway Comitative -> NP-AND (Noun Phrase Coordination), and also Creissels' (2005: 52) observation that "...most African languages do not have an exact equivalent of the English co-ordinating morpheme *and*, and they tend to co-ordinate noun phrases within what can be called the 'comitative strategy'".

The semantic reanalysis of the Comitative function of the Basic KI Construction as coordination of NPs most likely began in either post-verbal O argument coordination (as in 17), post-verbal A argument coordination (similar to 16), or the S argument of the passive (as in 28), because these are contexts where the Comitative Strategy and the Coordination Strategy are structurally identical. Additional evidence from the grammaticalization literature suggests that the functional diversification of the Basic KI Construction traces back to the Comitative (Heine & Kuteva 2002).

The development of the Verbal Complementation KI Construction

The Verbal Complementation KI Construction most likely represents a more recent development than the Basic KI Construction and the Coordinate NP KI Construction, because within the Luo family it can only be reconstructed for Proto-Northern Luo and it exhibits significant lexical restrictions in both the Northern Luo and Koman families. Due to similarity in form and function, it is most likely that the Verbal Complementation KI Construction developed out of the Basic KI Construction through semantic reanalysis involving a small set of lexical verbs.

Within Northern Luo, this reanalysis appears to have occurred in two stages in connection with the coding of the Theme of Antipassive. The antipassive is a common feature of Western Nilotic languages in general (Schröder 2006), but the Northern Luo languages appear to be unique in having some non-derived active-voice verbs that take "demoted" O arguments marked with the KI preposition. Many of these are the same verbs that operate within the Verbal Complementation KI Construction, as seen in the following two examples:

Luwo (Northern Luo)

S V [KI NP]

- (45) nyakou ayiio ke cwore
 '...the girl agrees on/to her husband.' (when choosing a future husband) (Santandrea 1977: 563)

Anywa (Northern Luo)

S V [KI NP]

- (46) bá ēnī kwéeyýó kī cúow
 but she refuse:FQ OBL men
 'But she refused men.' (Reh 1996: 333)

Thus these verbs appear to resemble the Theme of Antipassive Basic KI Construction, but the verbs are not in the antipassive form. Given that the antipassive verbal forms are coded through vowel alternations on the verbal stem and are very likely to have their reconstructed origin in Proto-Western Nilotic, it follows that the examples above reflect a reanalysis of the Theme of Antipassive Basic KI Construction as consisting of a verb (active or antipassive) with a [KI NP] complement. This level of reanalysis is not restricted to PCU and aspectual verbs (see 47).

Anywa (Northern Luo)

- V-s [KI NP]
 (47) wár-í kī dúut
 sing-2SG OBL song
 ‘Sing a song!’ (Reh 1996: 394)

The second stage of reanalysis involves a change in the lexical class of the constituent following the KI preposition in the Basic KI Construction. The original construction is reanalyzed as coding a verbal complement, either through use of nominalization morphology or with a bare verb. There does not appear to be consistency in the pattern of which matrix verbs require nominalization morphology on the verbal complement and which do not.¹⁰ Some evidence points toward dual functionality of the nominalizer as coding both verbal complements and relative clauses (see 48).

Anywa (Northern Luo)

- V-s [KI NOM-V]
 (48) wár-í kī mǎn-ā-máŋŋ-í
 sing-2SG OBL NMZ-PST-want-2SG
 ‘Sing what you want!’ (Reh 1996: 394)

Parallels in Southern Luo indicate that cognate PCU and aspectual verbs are either irregular, take verbal complements without use of a complementizer, or are used paratactically. Noonan (1992) observes that the Lango verb *dógi* ‘refuse’ is irregular in that it does not take an object suffix. The word *cako* ‘start’ in Lango and Acholi is cognate to Anywa *caGGo* and takes bare verbal complements without a complementizer (Noonan 1992; Crozzolera 1955). Acholi *tyeko* ‘finish’ is used paratactically, as in (49).

Acholi (Southern Luo)

- (49) gi-kayo bel gi-tyeko
 3:PL-harvest corn 3:PL-finish
 ‘They harvested all the corn.’ (Bavin 1989)

Following Givón (1979) and Dahl (2009), it is also possible that some of the Northern Luo verbs functioning within the Verbal Complementation KI Construction have developed out of paratactic constructions like the one exemplified above. This would reflect one of the primary pathways for grammatical evolution: paratactic constructions > syntactic constructions. More evidence is necessary to confirm such a possibility.

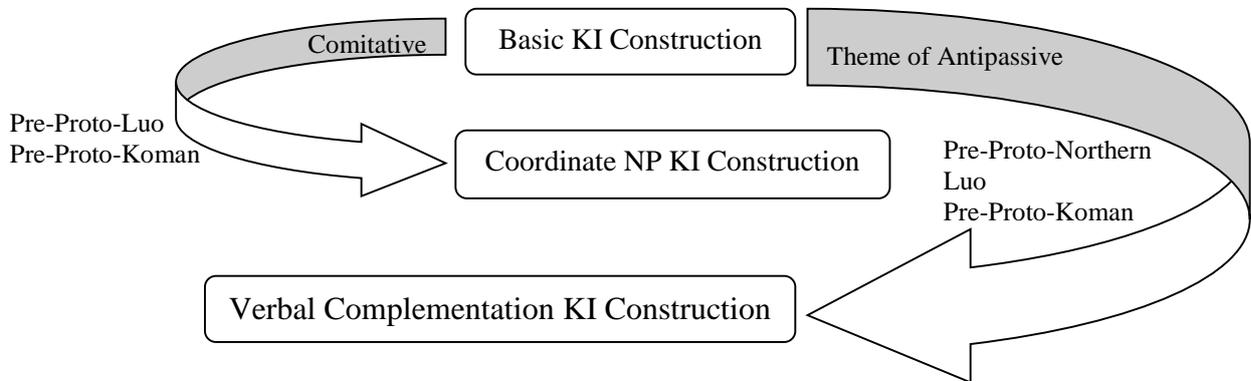
Within the Koman languages, evidence of the development of the Verbal Complementation KI Construction is fewer and farther between. To date, no antipassive verbal forms have been posited for any of the Koman languages, which precludes direct comparison with the developments in Northern Luo. The widespread use of the Verbal Complementation KI Construction with verbs of Utterance represents a stark contrast with the Northern Luo languages (which, in turn, solely use the alternate /ni/ complementizer for verbs of Utterance). Continuing research on the languages of the Koman family will hopefully shed more light on these developments in the future.

In summary, the diachronic development of the three KI Constructions consists of two separate pathways of reanalysis, stemming out of the Basic KI Construction. It is proposed that the Coordinate NP KI Construction first developed out of a reanalysis of the Comitative Basic KI Construction, and

¹⁰ The nominalizer in Anywa comes from */mā/, pl. */mō/, which was an alienable noun meaning ‘one’ or ‘thing’ (Reh 1996: 155).

that the Verbal Complementation KI Construction then developed out of the Theme of Antipassive Basic KI Construction at a later stage. These developments are represented below in Figure 7.

Figure 7: The diachronic development of the KI Constructions.



Implications for language relationships

Given the distribution of the three KI Constructions in Table 1 and the stages of diachronic development in Figure 7 above, four possible explanations for the occurrence of cognate KI Constructions in both the Koman and Luo families are considered.

a. Chance

Ringe (1992) has demonstrated that non-cognate monosyllabic CV morphemes from different languages can easily take the same form by sheer coincidence, and Cambell (2004) has argued that comparison of such forms for the purposes of diachronic linguistics should be avoided. This argument does not apply to the KI forms in the Luo and Koman languages for three reasons: First, the scope of the correspondence is not between just two languages, but rather is a multilateral comparison across numerous languages. Second, the cognate morphemes consist of both an initial consonant as well as a specified vowel (/i/, /e/, or /ε/), rather than merely an initial consonant as in Ringe’s multilateral study. Third, the comparison here is between schematic constructions, and not merely individual morphemes. The KI Constructions specify non-segmental information about other atomic units in addition to the cognate KI morpheme (e.g. lexical class, constituent order, etc.), which also reduces the possibility of chance similarity.

b. Inheritance

It is possible that the distribution of shared constructions is primarily due to shared inheritance. The primary issue with this explanation is that the Verbal Complementation KI Construction occurs in only the Koman and Northern Luo families. Based on previous comparative work, it is clear that Northern Luo and Southern Luo are closely-related sub-families and that Koman is more distantly related to both Luo sub-families than the two sub-families are to each other. Thus, for inheritance to be the primary source of these shared constructions, it would be necessary to reconstruct a *KI Verbal Complementation Construction at the Pre-Proto-Luo and Pre-Proto-Koman stage. The absence of the Verbal Complementation KI Construction in the Southern Luo languages would have to be explained as a sub-family-wide loss. This scenario is unlikely for two reasons: First, the restriction of the Verbal Complementation KI Construction to aspectual and PCU verbs in Northern Luo and Koman suggests that it is a recent innovation involving a small subset of verbs and not the remnants of a more widespread phenomenon. Second, there already exists a verbal complementation construction that reconstructs to Proto-Luo that includes the /ni/ complementizer does not appear to be lexically-restricted. Therefore the likelihood is low that the Verbal KI Complementizer was originally more widely used and was then subsequently replaced by the /ni/ constructions.

The distribution of the Basic KI Construction and the Coordinate NP KI Construction, however, clearly indicates that they reflect shared inheritance that reconstructs to Proto-Luo and Proto-Koman. Additionally, there are examples of *kV* constructions that appear to closely resemble the KI Constructions both in form and function. Thus the possibility of higher-level shared inheritance is a distinct possibility, but it is beyond the scope of this paper. A small selection of evidence found so far includes: **Gumuz** (*ká* and *ka*), **Western Nilotic** Nuer, Mayak, and possibly Mabaan, **Eastern Nilotic** Teso, Turkana, Bari, Karimojong, and Lotuko, **Southwest Surmic** Tenneset and Didinga, **Central Sudanic** Yulu, Kresh, and Baka, among others.¹¹

c. Contact-induced change

The distribution of the Verbal Complementation KI Construction can most easily be explained in terms of contact between the speakers of the Northern Luo languages and the Koman languages. Northern Luo is spoken in an area significantly closer to the Koman family than Southern Luo, and Northern Luo exhibits a pattern of KI Constructions that more closely resembles that of Koman. This indicates that, at a minimum the distribution of the Verbal Complementation KI Construction is most likely due to contact-induced change. Significant direct contact between the speakers of these families has not been reported, however, and the possibility of contact-induced phenomena involving the Burun or Dinka-Nuer languages cannot be ruled out. Additional historical and archaeological data is necessary to assess these possibilities. In contrast, the Basic KI Construction and Coordinate NP KI Construction are not best explained by contact, as discussed above. This supports a more nuanced fourth possibility: that the distribution of all of the KI Constructions can be explained by *(d) a combination of inheritance and contact-induced change*.

5 Concluding remarks

Although the Koman and Luo languages are known to be distantly-related, they feature a number of shared grammatical constructions that cannot easily be merely due to coincidence. This paper has shown that three of these constructions, the Basic KI Construction, the Coordinate NP KI Construction, and the Verbal Complementation KI Construction are cognate and can be reconstructed to proto-stages. The co-occurrence of these constructions in the Luo and Koman families is best explained by positing historical stages of both inheritance and contact. It is in this way that the diachronic development of each of the three KI Constructions reflects a unique temporal and interactional backdrop to syntactic change. Further research into the dispersion of cognate KI Constructions outside the Luo and Koman families will shed light on the extent to which these constructions reflect higher-level shared inheritance, and hopefully provide additional insight into the genetic and areal relationships of the Nilo-Saharan languages.

¹¹ Notably, there is not evidence of cognate KI Constructions in Southern Nilotic.

Abbreviations

| | | | |
|-------|------------------------------------|------|-------------------------------|
| 1 | 1 st person | NOM | Nominalizer |
| 2 | 2 nd person | OBJ | Object |
| 3 | 3 rd person | OBL | Oblique |
| ANTI | Antipassive | PART | Particle (Kebebw 2010) |
| C | Dependent Clause Marker (Reh 1996) | PASS | Passive |
| COND | Conditional | PERV | Perfective |
| DEO | Deontic | PL | Plural |
| E | Evidential (Miller & Gilley 2001) | POSS | Possessive |
| ERG | Ergative | PREP | Preposition |
| ERG | Ergative | PST | Past |
| EX | Exclusive | PURP | Purposive |
| IMP | Imperative | REF | Referential Determiner |
| IMV | Imperfective | REL | Relative Pronoun |
| INSTR | Instrument | SBJ | Subject |
| ITV | Itive / Translocative | SGV | Singulative |
| LNK | Linker | SUF | Verbal Suffix (Andersen 1988) |
| M | Multiplicative | TR | Transitive |
| MN | Modified Noun (Reh 1996) | VEN | Ventive / Cislocative |

References

- Andersen, Torben. 1988. Ergativity in Pari, a Nilotic OVS language. *Lingua* 75: 289–324.
- Bavin, Edith L. 1989. The Ki-verb Constructions in Acholi?. *La Trobe working papers in linguistics*, pp. 29–41. Bundoora, Victoria: Linguistics Program, La Trobe University.
- Comrie, Bernard. 1981. *Language Universals and Linguistic Typology: Syntax and Morphology*. Chicago: University of Chicago.
- Creissels, Denis. 2005. *A Typology of Subject Marker and Object Marker Systems in African Languages*. Amsterdam/Philadelphia: Benjamins.
- Dahl, Östen. 2009. Two Pathways of Grammatical Evolution. In T. Givón & Masayoshi Shibatani (eds.), *Syntactic Complexity: Diachrony, Acquisition, Neuro-cognition, Evolution*, pp. 239–248. Amsterdam/ Philadelphia: Benjamins.
- Dixon, Robert M. W. 1994. *Ergativity*. Cambridge: Cambridge University Press.
- Dryer, Matthew. 1997. Are Grammatical Relations Universal? In Joan Bybee, John Haiman & Sandra Thompson (eds.), *Essays on Language Function and Language Type: Dedicated to T. Givón*, pp. 115–143. Amsterdam/Philadelphia: Benjamins.
- Greenberg, Joseph H. 1963. *The Languages of Africa*. Bloomington: Indiana University.
- Givón, Talmy. 1979. From Discourse to Syntax: Grammar as a Processing Strategy. In T. Givon (ed.), *Syntax and Semantics 12: Discourse and Syntax*, pp. 81–112. New York, NY: Academic Press.
- Givón, Talmy. 1984. *Syntax: A Functional-Typological Introduction 1*. Amsterdam/Philadelphia: Benjamins.
- Heine, Bernd & Christa König. 2010. *The Labwor Language of Northeastern Uganda: A Grammatical Sketch* (Studies in Nilotic Linguistics, 1). Tokyo: Research Institute for Languages and Cultures of Asia and Africa.
- Heine, Bernd & Tania Kuteva. 2002. *World Lexicon of Grammaticalization*. Cambridge: Cambridge University Press.

- von Heyking, Beatrix. 2010. The Noun Morphology of Belanda Boor. *Studies in Nilotic Linguistics*, 2: 29–60.
- Hieda, Osamu. 2011. *Kumam Vocabulary with Grammatical Notes* (*Studies in Nilotic linguistics*, 4). Tokyo: Research Institute for Languages and Cultures of Asia and Africa.
- Kebebw, Lemi. 2010. A Grammatical Description of Opo. Master's Thesis, University of Addis Ababa.
- Kievit, Dirk & Erika Robertson. 2011. Notes on Gwama Grammar with Texts and Word Lists. SIL Ethiopia.
- Malandra, Alfred. 1955. *A New Acholi Grammar*. Kampala: Eagle Press.
- Miller, Cynthia L. & Leoma Gilley G. 2001. Evidence for Ergativity in Shilluk. *Journal of African Languages and Linguistics* 22.1: 33–68.
- Okombo, Duncan. O. 1997. *A Functional Grammar of Dholuo* (Nilo-Saharan, 12). Cologne: Köppe.
- Reh, Mechthild. 1996. *Anywa Language: Description and Internal Reconstructions* (Nilo-Saharan, 11). Cologne: Köppe.
- Ringe, Donald A. 1992. On Calculating the Factor of Chance in Language Comparison. *American Philosophical Society, Transactions* 82.1: 1–110.
- Ringe, Peter. C. 1949. *A Simple Alur Grammar and Alur – English – Alur Vocabularies*. Kampala: Eagle Press.
- Santandrea, Stefano. 1977. Jur-Luo Texts and Comments: The Family. *Anthropos* 72: 557–609.
- Schröder, Helga. 2006. Antipassive and Ergativity in Western Nilotic and Surmic. *Annual Publications in African Linguistics* 4: 91–110.
- Stassen, Leon. 2000. AND-Languages and WITH-Languages. *Linguistic Typology* 4: 1–54.
- Storch, Anne. 2005. *The Noun Morphology of Western Nilotic* (Nilo-Saharan, 20). Cologne: Köppe.
- Storch, Anne. 2010. Luwo Morphosyntax. *Studies in Nilotic Linguistics* 2: 1–27.
- Westermann, Diedrich. 1912. *The Shilluk People, their Language and Folklore*. Berlin: Reimer.