Directionality in Grammar and Discourse: Case Studies from Africa

edited by
Angelika Mietzner and Ulrike Claudi

RÜDIGER KÖPPE VERLAG KÖLN
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Preface

This volume on the expression of directionality in African languages is the output of a workshop “Directionality in Grammar and Discourse: Evidence from African Languages” that was held at the University of Cologne, Germany in June 10 - 11, 2010. The workshop was sponsored by the Thyssen Foundation, to which we express our gratitude. This workshop on directionality was a continuation of a previous one on “Encoding Motion: Case Studies from Africa”, which was held in 2007, also sponsored by the Thyssen Foundation.

The idea of planning such a workshop was motivated by the fact that a large number of African languages exhibit multiple ways of expressing the direction towards or away from a deictic center, either by fixed morphemes or by other grammatical elements. Former research had also revealed that directional morphology may develop semantics that go beyond the encoding of direction properly. So, the question was: How do African languages encode directionality, and in which way may particular forms receive semantics that have no obvious semantic relation to directionality?

The participants presented papers on Afroasiatic, Niger-Congo, Nilo-Saharan and Khoisan languages, i.e. on languages of all of the four African language phyla.

The Afroasiatic phylum is represented by Berber (Fleisch) and Somali (Northern Cushitic; Claudi).

Niger-Congo is represented by Tima (Eastern Sudanic; Dimendaal et al.), Zande (Ubangi; Pasch), Mbembe (Jukunoid; Richter gen. Kemmermann), Syer (Senufo; Dombrowski-Hahn), as well as by Bantu languages (Atindogbé, Möhlig, Nassenstein).

Nilo-Saharan languages are represented by languages of the Eastern Sudanic branch, Dinka (Western Nilotic; Andersen), Nilotic (Mietzner) and Nubian (Jakobi).

One Khoisan language was investigated, namely Nǁng (Ernszt).

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1 The output of the 2007 workshop has been published as Encoding motion: Case studies from Africa, ed. by Angelika Mietzner & Yvonne Treis 2007. (Annual Publications in African Linguistics, 5.) Cologne: Köppe.
Finding your way in Tima*

Suzan ALAMIN, Gertrud SCHNEIDER-BLUM and Gerrit J. DIMMENDAAL

Abstract

The cross-linguistic investigation of spatial orientation and directionality marking in recent years has shown that languages may deploy an environment-centred, an object-centred, a viewer-centred frame of reference, or a combination of these. Whereas these frames are also attested in Tima, a Niger-Congo language spoken in the Nuba Mountains (Sudan), data from this language also show that this typology needs to be refined. A central property of directionality marking in Tima involves the egocentric perspective, which in turn affects evidentiality marking. The structure of macro-events in Tima furthermore shows that an economy principle is at work whereby two separate events may be expressed in one and the same verb (as a phonological word), a phenomenon called “alloying” in the present contribution.

1. Introduction

Tima is a language spoken by approximately 6,000 people most of whom live in the Nuba Mountains, in Sudan. It has been classified as a Kordofanian language by Greenberg (1963) and Schadeberg (1981a, 1981b), but this claim probably needs to be modified (Dimmendaal 2009a: 81). Tima forms a genetic unit with Katla and Julud, referred to as the Katla group by Tucker and Bryan (1956: 64). According to Greenberg (1963: 149), who also refers to this cluster as the Katla group, it is part of the Kordofanian branch within the Niger-Kordofanian phylum (called Niger-Congo today). According to the same classification, the Kordofanian branch furthermore contains the Koalib group, the Tegali group, the Talodi group, and the Tumtum group. As Greenberg (1963: 149) also points out, “the fourth (Tumtum) shows considerable divergence from the remainder”. Schadeberg (1981c), who refers to this latter cluster as the Kadugli group, argues that this group does not belong to Kordofanian and that its potential affiliation with the Nilo-Saharan phylum should be investigated. But the actual evidence for a genetic unity of the remaining four groups is not very convincing either, although their classification as part of the Niger-Congo phylum seems undisputed. There is solid grammatical evidence that the Katla cluster forms a genetic unit with the Rashad group (referred to as the Tegali group by Greenberg), as argued by Dimmendaal and Radic (to appear); Heiban (called Koalib by Greenberg) and Talodi also seem to form a genetic unit, given the presence of a range of grammatical and lexical cognates. But there is no convincing evidence that the Katla-Rashad cluster forms a genetic unit with the Heiban-Talodi group. Consequently, these two groups are better treated as independent members of the Niger-Congo phylum until more detailed comparative studies become available.

Although Tima has no longer a productive noun-class system, it does have numerous traces of this former system (Alamin 2009, Dimmendaal to appear a). Since a basic
understanding of this remnant system is a prerequisite for a proper understanding of the discussion on directionality marking in Tima below, this system is briefly outlined first.

Whereas the Tima people call themselves ントウ or トンル, singular ントウ, the language itself is called トンル 

Whereas the Tima people call themselves ントウ or トンル, singular ントウ, the language itself is called トンル ‘the language like Tima’. The singular (or singulative) marker ku- (with a range of allomorphs) and the plural (collective) marker i- (allomorph i) are the only two productive number-marking prefixes synchronically in the language. Although other noun-class prefixes are attested in Tima, none of these are part of a productive singular (singulative)/plural (collective) alternation synchronically (Alamin 2009). Nominal modifiers, which show agreement with regard to number marking, follow the head noun. Again, for all modifiers only one singular and one plural agreement marker is found. Similarly, cross-reference marking for subject (or agent) and object is not sensitive to the noun class a particular noun belongs to, i.e. only one singular and one plural pronominal marker occurs.

Tima has a two-tone system with downrift and downstep (Dimmendaal 2009b: 335; see also Bashir 2010). In addition, “Tima has a rather classic ATR-harmony system with six [-ATR] and six [+ATR] vowels, all of which may be either short or long” (Dimmendaal 2009b: 335). Apart from the common ten vowels in such a system, Tima has two additional central vowels, [-ATR] ə and a corresponding [+ATR] vowel i. Tima furthermore has a system of fronting harmony (see Bashir 2010 for details), a system whereby vowels in affixes harmonize with the root vowel in terms of the phonetic features front, central, and back.

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1 This historical reduction of the noun-class system is described in Dimmendaal (to appear a).
Below, we concentrate on location marking and the various strategies used to express directionality in 탐다다 다무르크. After the section introducing basic concepts of di-rectionality marking (section 2), we present an in-depth investigation of the distribution and use of the ventive marker (section 3). We then make an excursion into the field of macro-event property (section 4), before putting the data into a broader typological perspective (section 5).

2. Basic concepts

This section is divided into three parts. After some general background information on the conceptualizations of space as described in the typological literature (2.1), we introduce the basic concepts of directionality marking in the Tima language (2.2). In section (2.3) we explain what etymological sources are available for some of the presented lexemes on directionality marking in this language.

2.1 Background information

The coding of directionality is, of course, closely connected to motion and position. According to one influential source, Levinson (2003: 55 and 66), the position of an object is put into a certain frame of reference, which may be referred to in the following, alternative ways:

a) absolute (environment-centred; e.g. cardinal directions) [ternary]\(^2\)
b) intrinsic (object-centred) [binary]
c) relative (viewer-centred) [ternary]

More recently, this threefold distinction has been challenged by Danziger (2010), who claims that a fourth situation has to be considered which she names the (binary) direct frame of reference (Danziger 2010: 172). In absolute and intrinsic frames of reference, the speaker is not considered (i.e. allocentric marking occurs), whereas in relative and direct frames of reference, the position of the speaker is foregrounded (i.e. egocentric). The relevance of these conceptual notions for an understanding of spatial orientation in Tima is investigated next.

2.2 Basic concepts in Tima

We will begin our survey with an introduction into the basics of directionality marking in Tima. The fact that the absolute frame of reference plays a role in this language becomes clear from the terms for the four cardinal directions:

- dökwałf ‘north’
- líńf ‘east’
- dökùmál ‘south’
- líhi ‘west’

\(^2\) The notion allocentric implies an anchor which is not a speech-situation participant; egocentric on the other hand refers to a position whereby the anchor is a speech-situated participant; the concept ternary refers to a position whereby the anchor is not the ground, whereas binary implies an anchor which is (part of) the ground (see Danziger 2010: 172 for further details).
The cardinal directions may be illustrated with the following examples:

(1) kw álṣn-ī-yāā kā-tēřēj dūkwāâlf Kămẖārā-yī Hīndīŋ dāṇā k-āḥū
NC.SG-mountain- NC.SG- north Kambah-eE- Hinding like NC.SG-
EE-DEM2 small FOC name
‘that small mountain to the north of Kambah is named Hindin’

(2) Imādādān ānṭō līńčē-īnā ī-Īmūrīk-ī-ī-yāā
Katla.people COP east-DEM1 of-Tima.people EE-DEM2
‘the Katla are to the east of the Tima people’

(3) Imūrūk ānṭō dūkōmāl-nā ī-Īmūrīk-ī-ī-yāā
Tulishi.people COP south-DEM1 of-Tima.people EE-DEM2
‘the Tulishi are to the south of the Tima people’

(4) ḫūyā ānṭō līńhī-nā ī-Īmūrīk-ī-ī-yāā
Tabak.people COP west-DEM1 of-Tima.people EE-DEM2
‘the Tabak are to the west of the Tima people’

However, when using cardinal notions in order to direct somebody, like ‘go north’, or ‘go east’, Tima speakers instead would rather refer to neighbouring mountains and ethnic groups.

(5) āyī Lū-mūrūk
go.IMP:SG loc-Tulishi
‘go to Tulishi (i.e. go to the south)’

The command (or, rather, optative verb form) āyī ‘(may you) go’ in (5) is followed by the respective noun which is marked for the locative by way of a locative prefix.

If the directional āyī is followed by the clitic -n, the proper translation instead would be ‘go towards’. This way, a telic situation, ‘achieving a goal’, can be differentiated from ‘moving towards a goal’; see also examples (29) and (30) below for this subtle distinction.

(6) āyī-n Lū-mūrūk
go.IMP:SG-DIR loc-Tulishi
‘go towards Tulishi (go southwards)’

In many cases āyīn may be considered a kind of preposition with the meaning ‘to, towards’, i.e. a marker specifying the search domain. Consider (7):

(7) māt-lāk āyīn lī-hī
look-AP towards loc-ground
‘look at/towards the ground’

The respective words for the cardinal directions are also used to indicate ‘left’, ‘up’, ‘right’, and ‘down’ respectively. Hence:

dūkwāâlf ‘north; left’
līńčē ‘east; up’
dūkōmāl ‘south; right’
līńhī ‘west; down’
Additional sentences containing cardinal directions (or the respective egocentric deictics) not only illustrate the point made with regard to the ambiguity of these expressions, they also exhibit a range of additional noteworthy information, as in the following example:

(10) Kąpųj á-hùndnò  á-kə-rəmàn lēžnì  ū-dókwàålì
Kąpųj TAM-sit.down SOURCE-NC.SG-side my GOAL-left
‘Kąpųj is sitting next to me to the left’

Consider, first, ákòrəmàn ‘at the side of’ in ex. (10): here, a- is a source marker. It is used whenever the source of some movement (or transaction) is mentioned, e.g. álùmrîk ‘from the Tima area’ or dkbûyq ‘from a friend’. It is a widely used proclitic, occurring in many expressions, like àllò ‘from very far’ (llò ‘very far’) or òvwâr[t ‘from outside’ (twầr̥ ‘outside’). The source marker is also used in comparisons.3

(11) Háámìt á-kwâbìng-àtə̄q á-pínà
Hamid TAM-big-compl SOURCE-3SG
‘Hamid is older than (lit.: tall from) her/him’

In addition to the locative prefix l(V), which designates an approximate area, another marker indicating the location or goal is attested. This clitical element consists of a vowel which harmonizes with the first vowel of the following noun, as with ūdókwàålì ‘to the left’ in ex. (10) above. Note that without ūdókwàålì the sentence would be incomplete for Tima speakers. The proclitic, underspecified high vowel V- is often used with complements of verbs of giving, and in this respect it “competes” with a verbal enclitic, the benefactive marker. The marker for the benefactive is -ii/-n, as illustrated in ex. (12).

(12) dɪŋâŋ-ii-dà  k-àtáwî-yàà  à-lîhî-y-i
give:VENT-BEN-1SG  NC.SG-book-DEM2  SOURCE-west-EE-FOC
‘give me the lower book’

In the example above, the beneficiary is expressed by way of a pronoun. When the latter refers to a noun or question word, the benefactive marker is attached to these constituents and forms an independent phonological word with these: îfîwû ‘for who’, and îíHâámît ‘for Hamid’.

In the alternative construction, with the harmonizing proclitic preposition V-, the complement of this preposition primarily expresses the goal of motion activities. Consider āŋkâhîyûî  īpínà ‘(s)he/they gave it to him/her’. Here, the goal marker (in the

3 In this respect, Tima patterns along with other languages in northeastern Africa, where source is a preferred cognitive scheme for the expression of superlatives, as pointed out in Heine 1997.
prepositional phrase  вопі́д) indicates the recipient, which may be different from a beneficiary of some verbal action.

In sentence (12), we also find a noun followed by the morpheme -yaa: kətəwəyəd; -yaa is a deictic clitic meaning ‘that/those’ (removed from speaker) and is one of the three demonstratives in the language. The other ones are the proximate demonstrative -na/-na ‘this/these’, and the referential demonstrative -weeg, expressing ‘that one/those mentioned’. The choice between -na/-na or -yaa depends on the relative distance of the item(s) to the speaker.

The following elements are independent deictics and some of their derivates:

- nəŋ  ‘here’
- yáánəŋ  ‘there (near speaker)’
- i-yáánəŋ  ‘in that direction, towards there (directional near speaker)’
- á-yáánəŋ  ‘from there, after that’ (note the temporal dimension)
- ló  ‘there (far)’
- llo  ‘very far’
- á-llo  ‘from far away’

The next noteworthy morpheme, playing a central role in spatial orientation in the Timba speech community, is -Vɲ, as found in ex. (13).

(13) Kwákwəŋ ën-dówá-iŋ  á-lîŋɛɛ
Kwákwaŋ TAM-go.down-EE-VENT SOURCE-east
‘Kwakwagh went down / came from the east (speaker is in the west)’
‘Kwakwagh went down / came from the top (speaker is down)’

A translation which would capture the meaning more accurately presumably would be ‘Kwakwagh descended towards me’. There is no undervived lexeme in Timna meaning ‘come’. Instead, one can use different motion words expanded with the ventive suffix, in order to express the fact that the motion (carried out in a particular manner) is directed towards the speaker or deictic centre (‘me’, ‘us’).

The position of the speaker is reflected in different parts of the sentence, or more precisely, with different parts of speech in Timba. One prominent position is the verb, as with ándɔwəŋ ‘(s)he/they descended (towards speaker)’ in (13), where the ventive marker -Vɲ expresses movement towards the deictic centre (i.e. the speaker). In a corresponding verb form ándɔwə ‘(s)he/they descended’, the absence of the ventive marker implies that the speaker is not near or at the goal. The speaker could be, in this case, in the east (at the starting point) or somewhere else (i.e., neither at the starting point nor at the goal). To be able to differentiate whether the speaker himself is at the starting point or not, the Timba language has another marker, n(ɲ)(V)-, again indicating the position of the speaker, as in (14) below, where it is attached to the prepositional phrase.

(14) Kwákwəŋ án-dówə  á-nîŋɛɛ
Kwákwaŋ TAM-go.down SOURCE-SPEAKER.THERE-east
‘Kwakwagh went down from the east (speaker is still in the east)’
‘Kwakwagh went down from the top (speaker is still on top of a mountain)’

The n(ɲ)(V)-marker occurs as a paradigmatic alternative to the already introduced locative marker l(V)-, and expresses the presence of the speaker. Compare álîŋɛɛ ‘from the east’ with álîŋɛɛ ‘from the east’, the literal translation of álîŋɛɛ being ‘from the area
in the east; the exact information which is covered by áŋṭī gió is ‘from the east where the speaker is as well’.

\[
\begin{align*}
\text{á-li-ŋéè} & \quad \text{á-ŋtí-ŋéè} \\
\text{SOURCE-LOC-east} & \quad \text{SOURCE-SPEAKER.THERE-east} \\
\text{‘from the east (speaker not in the east)’} & \quad \text{‘from the east (speaker also in the east)’}
\end{align*}
\]

If the speaker is not considered at all, i.e. if he is neither at the starting point nor at the goal, the alternative construction with the locative marker \(l(V)\)- is used.

(15) Kwákwàŋ án-dùwà á-li-ŋéè
Kwákwaŋ TAM-go.down SOURCE-LOC-east
‘Kwákwaŋ went down from the east/top’
(speaker neither at the starting point nor at the goal)

While we find neither the ventive marker nor the position marker referring to the speaker in ex. (15) above, we find both markers in (16), where the speaker orders somebody to come to the place where (s)he himself is located:

(16) dí-y-àŋ htí-láh
walk-EE-VENT SPEAKER.THERE-field
‘come to the field (where I am)’

Another interesting example of locative marking is illustrated in ex. (17) with the form \(wáčuk\) ‘LOC2.baobab’.

(17) ihwáá-y-è hólàk htí-hí w-áčük ká-pàràróók
people-EE-FOC stay SPEAKER.THERE-ground LOC2-baobab NC.SG-hollow
‘the people are under the hollow baobab’

The noun ‘baobab’ in its citation form is \(káčük\). With \(wáčuk\) we find another locative form that may be translated with ‘underneath’ (see also ex. (51)). The sentence was uttered by somebody while looking at a particular picture (used as a stimulating device). Here, the conversational implicature is that the speaker himself/herself was also located underneath the same baobab tree. From a formal point of view, such locative forms involve alternation for the noun-class prefixes. These are discussed in more detail in Alamin (2009) and Dimmendaal (to appear b). A third locative form, \(y(V)\)-, conveys a very close and exact connection of some object to a specific location, as is illustrated in ex. (18):

(18) i-duú-w-é dá-y-ŋi-ŋtàŋ á-y-áh
NC.PL-blood-EE-FOC move.fast-EE-VENT-COMPL SOURCE-LOC3-head
‘blood is running from the head’

To sum up our current state of knowledge concerning directional marking in Tima: The language has noun prefixes which indicate different kinds of locations (\(l(V)\)- ‘approximate area of location’, \(w(V)\)- ‘underneath’ and \(y(V)\)- ‘exact location’). Moreover, it has proclitics which mark the direction (\(a\)- ‘source’, the latter preposition being in paradigmatic opposition with an underspecified clitical element \(V\)- expressing ‘goal’, and \(h\(V)\)- ‘goal with speaker’). It has the (morphologically derived) prepositions \(ṅh\) corresponding to ‘towards’ in English, and \(ṅń\(t\)-š ‘towards the place where the
speaker is’. Tima has a three-way distinction between demonstrative clitics: ‘near to the speaker’, ‘far/further away from the speaker’ and ‘mentioned before’. Some of these markers can be combined, as demonstrated above. In addition, we find formal marking on the verb. Here, the outstanding morpheme is the ventive marker -Vη, which again provides information about the speaker’s position. As in many languages, the marker expressing a benefactive, ii-/η-, occupies a status halfway in between the verbal ventive marker and the peripheral prepositional elements. When combined with nouns and question words, the latter form an independent phonological phrase; when combined with pronouns expressing a beneficiary, this marker plus pronoun encliticizes onto the verb.

Table 1. Locative / Direction Marking on Nouns

<table>
<thead>
<tr>
<th>MARKER</th>
<th>FUNCTION</th>
<th>PART OF SPEECH</th>
<th>ENGL. TRANSLATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>l(V)-</td>
<td>locative (area)</td>
<td>prefix</td>
<td>at</td>
</tr>
<tr>
<td>y(V)-</td>
<td>locative (exact)</td>
<td>prefix</td>
<td>at</td>
</tr>
<tr>
<td>w(V)-</td>
<td>locative (under)</td>
<td>prefix</td>
<td>under(neath)</td>
</tr>
<tr>
<td>ii-/η-</td>
<td>benefactive</td>
<td>proclitic</td>
<td>for</td>
</tr>
<tr>
<td>a-</td>
<td>source</td>
<td>proclitic</td>
<td>from</td>
</tr>
<tr>
<td>V-</td>
<td>goal</td>
<td>proclitic</td>
<td>to</td>
</tr>
<tr>
<td>n(V)-</td>
<td>goal (with speaker)</td>
<td>proclitic</td>
<td>to</td>
</tr>
<tr>
<td>åyín</td>
<td>direction</td>
<td>preposition</td>
<td>towards</td>
</tr>
<tr>
<td>åyínηδ</td>
<td>direction (location with speaker)</td>
<td>preposition</td>
<td>towards (speaker)</td>
</tr>
<tr>
<td>-na/-nη</td>
<td>proximal deictic</td>
<td>demonstrative enclitic</td>
<td>this/these</td>
</tr>
<tr>
<td>-yaa</td>
<td>distal deictic</td>
<td>demonstrative enclitic</td>
<td>that/those</td>
</tr>
<tr>
<td>-weey</td>
<td>discourse deictic (referential marker)</td>
<td>demonstrative enclitic</td>
<td>that/those mentioned</td>
</tr>
</tbody>
</table>

2.3 Tracing the etymology of some locative forms

As pointed out above, there is an etymological link between åyín ‘towards’ and the optative verb form åyí ‘(may you) go’. Below, we discuss possible lexical sources for some of the other forms involved in the expression of space and direction in Tima, starting with the following two cardinal direction markers.

lîhî ‘west; down’
lîfè ‘east; up’

We contend that lîhî is the locative form of kîhî ‘place’, which also serves as the source for its cognate nîhî ‘ground, down’; lîfè ‘east; up’ is suspected to be the locative form of the nominal lexeme kîfè ‘mouth’. With regard to the latter, consider the following examples:

(19) dîså yi-ŋfè
stand.up LOC3-mouth
‘stand upright (lit.: at the mouth)’
These examples above also illustrate the use of other locative-marking strategies introduced above: the (exact location) marker $y(V)$ in examples (19) – (21), the goal marker $V$- (in this case $i$- in ex. (20)), and the source marker $a$- in ex. (21). The word for ‘mouth’ is not the only body part which serves as a source for words indicating location/direction in Tima. Consider, for example:

$$
\text{cêên ‘face’} \rightarrow \text{ánthiyên/ánthiyêên ‘in front of’ (ex. (22) and (23))}
$$

$$
\text{kûdî ‘back’} \rightarrow \text{á’illéêdû ‘behind’ (ex. (24) – (27))}
$$

Possibly $\text{ánthiyên/ánthiyêên}$ originally used to mean ‘in front of me’. Consider the gloss and the literal translation:

$$
\text{á’ntî(-î)-y-cêên}
$$

$\text{SOURCE-SPEAKER.THERE(-LOC)-LOC3-face ‘from (the area) close at the face where I am’}$

However, its meaning has been extended, as can be judged from both examples (22) and (23). In example (22) we need object marking on the verb to achieve the intended meaning, in (23) the speaker is not even involved. This phenomenon, as well as the grammatical development of the preposition $\text{dí-y-â-\ldot}$ (containing a second person subject marker $a$-), suggests that the egocentric perspective may also vanish or be lost as a conversational implicature. Consider now the following examples expressing ‘back/behind’:

$$
\text{wâr\’tómáàddish-š-nâ} \text{ânci-\ldot-ak-\ldot-tàn} \text{tûkû} \text{á’illéêdû}
$$

$\text{man-EE-DEM TAM.go- EE-CAUS-COMPL waterbag SOURCE-LOC:back ‘this man put the waterbag on his back/behind’}$

\[\]
(25) Háámítà á-liééedí lèleñi
Hamid SOURCE-LOC:back LOC:1SG:FOC
‘Hamid is behind me (same direction; lit.: to the back of me/at my back)’

(26) k-árbaá’ná-li hšlák i-c-ákidák, k-wààn-yàn á-liééedí
NC,SG-baby-FOC stay GOAL-NC,SG-chair NC,SG-brother-3OBJ SOURCE-LOC:back
‘the baby is sitting on a chair, his/her brother is behind him’

(27) àiy á-liééedí k-úrtú
go.IMP:SG SOURCE-LOC:back NC,SG-house
‘go behind the house (for example, the side of the house, the implication being that
the addressee is out of the speaker’s view)’

The transition between the more literal meaning ‘back’ as a body part and the more
abstract meaning ‘at the back of, behind’ as a location marker ((26) versus (27)) of
course is well known as a common transitional stage in a grammaticalization path.
Heine (1997: 82) refers to this transitional phase of polysemy as the stage of overlap.
In Tima, body parts are among the favourite sources for spatial expressions, and in this
respect the language again exhibits a considerable degree of egocentric spatial thinking
in that the speaker’s position is usually communicated as well.

Table 2. Body Parts as Source of Spatial Expressions

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>ENGL. GLOSS</th>
<th>SPATIAL EXPRESSION</th>
<th>ENGL. GLOSS</th>
<th>LOCATIVE CONCEPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>kíñë</td>
<td>mouth</td>
<td>liñëë</td>
<td>up</td>
<td>LOCATIVE (AREA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>yñëë</td>
<td>upright</td>
<td>LOCATIVE (CLOSE)</td>
</tr>
<tr>
<td>cëën</td>
<td>face</td>
<td>ñn’ñfikíyëën</td>
<td>in front of</td>
<td>LOCATIVE (AREA/CLOSE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ñn’ñfikíyëën</td>
<td>in front of</td>
<td>LOCATIVE (CLOSE)</td>
</tr>
<tr>
<td>kídú</td>
<td>back</td>
<td>á-liééedí</td>
<td>behind</td>
<td>LOCATIVE (AREA)</td>
</tr>
<tr>
<td>káh</td>
<td>head</td>
<td>láh’</td>
<td>on top</td>
<td>LOCATIVE (AREA)</td>
</tr>
<tr>
<td>kúdú</td>
<td>vagina</td>
<td>wúdú</td>
<td>at the root/foot of</td>
<td>LOCATIVE (UNDER(NEATH))</td>
</tr>
</tbody>
</table>

However, as the data further reveal, there are additional lexical sources, e.g. kíñë ‘place’,
which serves as the base for words denoting ‘west, down, underneath’.

Other lexemes in the language have no easily recognizable etymological source.
Consider in this respect útíin ‘inside (with speaker not being inside)’ and ntítiin ‘inside (with speaker being inside)’, or twáá’rí ‘outside (speaker not outside)’ and ntwááwá’rí ‘outside (speaker outside)’. Note also nçóŋkòr ‘upright (on the long side)’ or tuwàn ‘above, high’. Also the lexeme for ‘north; left’ dòkwááłí is of unknown origin, whereas ‘south; right’ dòkwórí is based on -má ‘good, correct’, as is the case in many languages. These examples are understood best as projections of ego (or somebody) in a
landscape facing east (where the sun rises or where the Nuba Mountains are). Formally,
both dòkwááłí and dòkwómáñ are modifying nouns with the prefix d(V)- ‘like/similar to’.

^5 In addition, láh has become lexicalized as the word for ‘field’.
3. The use of the ventive marker\(^6\) in Tima

The ventive as a verbal derivation marker deserves a more careful consideration, given the various semantic nuances it adds to a verb; moreover, it is the only locative or directional marker expressed on the verb, rather than periphrastically. The verb in Tima in its most complex form contains thirteen slots, consisting of the root combined with proclitics and prefixes expressing different inflectional features, as well as several derivational suffixes and enclitics (Dimmendaal 2009a, 2010; Alamin 2009, Ch. 4.2).

Table 3. The verbal complex in Tima (Dimmendaal 2009c: 1)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEG</td>
<td>aspect</td>
<td>person (S, A)</td>
<td>tense</td>
<td>root</td>
<td>der. 1</td>
<td>der. 2</td>
</tr>
<tr>
<td>proclitic</td>
<td>proclitic</td>
<td>prefix</td>
<td>prefix</td>
<td>root</td>
<td>suffix</td>
<td>suffix</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>der. 3</td>
<td>ERG</td>
<td>Pron. O</td>
<td>Pron. A, S</td>
<td>DAT</td>
<td>NEG</td>
<td></td>
</tr>
<tr>
<td>suffix</td>
<td>enclitic</td>
<td>enclitic</td>
<td>enclitic</td>
<td>enclitic</td>
<td>enclitic</td>
<td></td>
</tr>
</tbody>
</table>

The ventive marker, which consists of an underspecified vowel and the nasal й, occupies slot 7, which makes -\(\text{Vй}\) the first or second position derivational suffix (for the position of the ventive marker, see also Alamin 2009, Table 4.5.). Apart from the root, none of the elements are obligatory, with the singular form of the imperative (if pragmatically possible) being the simplest form of the conjugated verb, as it consists only of a verbal root. The ventive marker indicates a movement towards the deictic centre, i.e. the speaker. The speaker's perspective apparently is very important in Tima discourse, and it is this cognitive state which licenses the verbal root (expressing an event) to take the ventive marker (expressing the position of the speaker with respect to this event). The marker -\(\text{Vй}\) appears with intransitive and (high and low) transitive verbs, and is part of a set of verbal derivational markers expressing decreasing or increasing valency. The verbs in Table 4 show a variety of such combinatory possibilities in Tima. The first column represents verbs without the ventive marker, whereas the fourth column represents these in combination with the ventive markers. Note that not only motion verbs may be extended with the ventive marker, but all other kind of verbs. What sort of change in meaning is achieved by adding the ventive marker is explained in detail in the following two sub-sections. First, we focus on simple and complex motion events encoded in one verb, as well as on consecutive and purposive events encoded with the help of two verbs (3.1). We then conclude the excursion into the field of ventive marking with the illustration of its use in the context of natural phenomena and with respect to body secretions – see (3.2).

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\(^6\) Tima verbs do not have a marker which indicates a direction away from the speaker, i.e. there is no corresponding itive marker on verbs.
Table 4. The ventive marker on derived and underived verbs

<table>
<thead>
<tr>
<th>VERB</th>
<th>PART OF SPEECH</th>
<th>GLOSS</th>
<th>VERB:VENTIVE</th>
<th>GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ċītām</td>
<td>v (intr)</td>
<td>exit</td>
<td>ċītāmōŋ</td>
<td>exit (towards speaker), come out</td>
</tr>
<tr>
<td>ċīwūn</td>
<td>v (intr)</td>
<td>move</td>
<td>ċīwūŋē</td>
<td>move (towards speaker)</td>
</tr>
<tr>
<td>ċōwād</td>
<td>v (low.tr)</td>
<td>descend</td>
<td>ċōwāmē</td>
<td>descend (towards speaker)</td>
</tr>
<tr>
<td>cūs</td>
<td>v (low.tr)</td>
<td>arrive, reach</td>
<td>cūsē</td>
<td>arrive (towards speaker)</td>
</tr>
<tr>
<td>dūs</td>
<td>v (low.tr)</td>
<td>run</td>
<td>dūsē</td>
<td>run (towards speaker)</td>
</tr>
<tr>
<td>būs</td>
<td>v (low.tr)</td>
<td>put</td>
<td>būsē</td>
<td>put (towards speaker)</td>
</tr>
<tr>
<td>dīnē</td>
<td>v (high.tr)</td>
<td>climb</td>
<td>dīnēŋē</td>
<td>climb (towards speaker)</td>
</tr>
<tr>
<td>kūtī</td>
<td>v (high.tr)</td>
<td>take it</td>
<td>kūtē</td>
<td>take and give me</td>
</tr>
<tr>
<td>mīhiği</td>
<td>v (high.tr)</td>
<td>run after</td>
<td>mīhiği</td>
<td>run after (towards speaker)</td>
</tr>
<tr>
<td>būrhuk</td>
<td>v (ap)</td>
<td>slide</td>
<td>būrhukēn</td>
<td>slide (towards speaker)</td>
</tr>
<tr>
<td>būrhāk</td>
<td>v (ap)</td>
<td>wash</td>
<td>būrhākēn</td>
<td>wash (and come towards speaker)</td>
</tr>
<tr>
<td>dūk7</td>
<td>v (ap)</td>
<td>walk</td>
<td>dūkē</td>
<td>walk here, come walking</td>
</tr>
<tr>
<td>dī-</td>
<td>bound root</td>
<td>dīyē</td>
<td>come</td>
<td></td>
</tr>
<tr>
<td>dīŋa-</td>
<td>bound root</td>
<td>dīŋaŋē</td>
<td>bring</td>
<td></td>
</tr>
</tbody>
</table>

3.1 Simple and complex motion events

Following Talmy (2000), motion events can be analyzed according to a number of cognitive semantic categories or components. These categories are FIGURE, PATH/MANNER and GROUND. The FIGURE indicates a movement of an object on a certain PATH / with a certain DIRECTION, and it is then located in, on or at a specific GROUND. The following contrastive examples from Arabic and Tima illustrate motion events, with sketches visualizing the actual situation.

Speaker: ⬤

Figure (agent)8: ⬤

Location of event8: □

Path10 / Manner: --- > / ➔

(28) zāhāb al-wālād ilāa al-maḍrlaːsa
    go:PAST DEF-boy PREP DEF-school

Motion Figure Path Ground
‘the boy went to the school’ (Arabic, VSO)

---

7 The form dūk ‘walk’ formally is the antipassive form of a verb with di- as a root. The root di- is a morpheme which is no longer used in isolation.

8 With regard to the visualized scenes, we restrict the role of the FIGURE to agent of a certain action.

9 If the event involves not only motion, but additionally indicates some action taking place before or after the motion, this location of event is also represented in the sketches. The location of event is not always identical to the ground, i.e. the endpoint of a movement.

10 According to Jackendoff (1993 [1983]: 165), the notion of path can be divided into three types: bounded paths (with the mentioning of source and/or goal), directions (away from, toward), and routes (intermediate passing of a location).
The motion events in example (28) from Arabic and (29) from Tima can be represented as in Figure 1, where the FIGURE, represented by the child, moves on a certain PATH to an end point (school), which represents the GROUND:

Figure 1. Representation of examples (28) and (29)

Consider now example (30):

(30) ki-cimbári én-dík-iŋ áyıntı mádhrásá
NC.SG-child TAM-walk-VENT DIR:SPEAKER.THERE school
‘the child is walking towards the school (where I am) / the child is coming towards the school’

The motion event in example (30) is represented in Figure 2, where the FIGURE (child) moves along a certain PATH into the DIRECTION of a GROUND where the SPEAKER is located. When comparing the two Tima examples (29) and (30), we find the ventive marker in (30) attached to the verb together with the directional marker áyıntı, both of them conveying the position of the SPEAKER relative to the GOAL. Both elements are missing in ex. (29), indicating that the SPEAKER is not at or near the GOAL. With the use of the goal marker in ex. (29), and the directional marker in ex. (30) respectively, the difference between achieving the goal (29) and directing towards the goal of the FIGURE becomes obvious.

Figure 2. Representation of example (30)

Next compare example (31) from Arabic with example (32) from Tima:

(31) ramaa al-ragul al-hagår bi-yad-ihi
propelled DEF-man DEF-stone INSTR-hand-POSS
‘the man threw the stone with his hand’ (Arabic)
In the Arabic example (31), the mentioning of the instrument (as an oblique object) in combination with the verb ‘propelled’ renders the meaning of ‘throwing (by hand)’. In Tima, the verb تُوَدَ ‘drop, let fall’ is marked for the antipassive as well as the instrumental marker, the latter showing the thematic incorporation of some instrument. However, the ‘hand’ as an instrument does not need to be mentioned. Again, since in ex. (32) the SPEAKER was in the street (= the GOAL) when the event took place, the verb is marked with the ventive, and we find the position marker (تُندَ) with the noun indicating the GOAL (تُندَ). The sentence thus is uttered from the speaker’s perspective.

In the Tima examples (29) and (30), the FIGURE is the element that moves, which makes a motion verb necessary. When the FIGURE moves towards the SPEAKER, the ventive marker on the verb is obligatory. In ex. (32), SPEAKER and agent are static, i.e. they do not change their position. The motion here refers to the motion of the object (representing the FIGURE) towards the SPEAKER.

3.2 The ventive marker in relation to natural phenomena and body secretions

The ventive marker also occurs in expressions for non-artificial events like weather phenomena or the growing of plants. Human beings may be affected by such events, even though they are not the actors and do not control the situation. Nevertheless, Tima speakers interpret these phenomena as being in proportional relation to the deictic centre, the speaker, as well.

Compare now the four examples below: The ventive marker in ex. (36) and (38) reveals that the tree and the fungus (growing on the tree), respectively, have not reached the SPEAKER. The tree and the luffa-plant have outgrown the speaker, which is signalled by the missing ventive marker on the verb.

11 See Schneider-Blum and Dimmendaal (forthcoming) for a discussion of the distribution of instrumental and antipassive markers in Tima.
(37) c-ibí-ná àŋ-káárák dā̀n-dááŋ
NC.SG-tree-DEM1 TAM-grow crookedly
‘this tree grew crookedly’ (taller than speaker)

(38) kò-bááño-li díŋé-éŋtán ī-kì-liŋá
NC.SG-fungus-FOC ascend-VENT:3SG GOAL-NC.SG-rotten.wood
‘there is a fungus growing on the rotten wood’

(39) líppà-li díŋé  ámb-dá lá tu⁹tàn
luffa-FOC ascend GOAL-roof on
‘there is a luffa-plant growing up to the roof’

The final examples of this section illustrate the use of the ventive marker with respect to body secretions.

(40) y-àám àn-dííŋ-á-táŋ
NC.PL-tears TAM-stand.up:VENT-COMPL
‘the tears appeared (for sb.)’

(41) i-dúú àn-dá-y-níŋ-á-táŋ à-yá-dáwún
NC.PL-blood TAM-move.fast-EE-VENT-COMPL SOURCE-LOC3:hand
‘blood was running from the hand’

(42) i-rint ś-i-kááám-úŋ-á-táŋ
NC.PL-intestine TAM-leave-VENT-COMPL
‘the intestines came out’

The noun expressing the body secretion occurs in subject position and is pictured as the actor of the scene. Alternatively, since these nouns refer to inanimate entities and the verbs express uncaused events, the thematic role of the subject noun may be referred to as THEME (following Jackendoff 1993). This is even more prominent in other cases, where the verb is transitive, as in (43). The ventive marker is avoided here, the patient being encoded as a pronominal object.

(43) pùrùwá àŋ-kóú-à-tèén
sweat TAM-take-LOW.TR-1SG
‘I am sweating’ (lit.: sweat took me)

4. Macro-event property

In their article ‘Principles of event segmentation in language: The case of motion events’, Bohnemeyer et al. (2007) introduce the notion of macro-event property (MEP), and note that “a construction has the MEP if it packages event representations such that temporal operators necessarily have scope over all sub-events” (Bohnemeyer et al. 2007: 495). The authors describe three types of languages in this respect: “In Type-I languages, it is possible to integrate sub-events of departure from ‘source’, arrival at ‘goal’ and passing of an intermediate ‘route’ into a single macro-event expression […]. Type-II languages permit integration of departure and arrival, but require a separate macro-event expression for the encoding of some […] passing events […]. In type-III languages, location change with respect to each ground must be encoded in a separate macro-event expression […].” (Bohnemeyer et al. 2007: 498.)
4.1 Macro-event property in Tima

In this section we focus on the concept of macro-event property in Tima. The first step is to find out how many sub-events are packaged in one macro-event and how many verbs we need in order to describe a certain situation. If there is one verb only, the interpretation as a single macro-event is imperative. Consider ex. (44) and (45):

(44)  
\[ \text{wəɾ'tsəmáddəh} \ \text{ān-tůwák-áá} \ \text{cůray} \ \text{ā-tůʔənə(-ʔənə)} \ \text{ā-kırdənə} \ \text{ū-təndə} \]  
\text{man TAM-drop:CAUS- stick SOURCE-on-COMPL SOURCE- DIR-street fence}  
\text{‘the man threw the stick over the fence into the street’}  

(45)  
\[ \text{wəɾ'tsəmáddəh} \ \text{ān-tůwák- 행사-קEncoder:CAUS- stick SOURCE-on- SOURCE- SPOK-THERE- fence COMPL-street} \]  
\text{man}  
\text{‘the man threw the stick over the fence into the street (where the speaker was)’}  

In ex. (44) and (45), the event can be divided into three sub-events: the departure of the \text{FIGURE} (releasing the stick), its intermediate passing of a \text{GROUND} (flying of the stick over the fence) and its reaching of a certain \text{GOAL} (arriving on the street). In Tima, only one verb is required containing the core meaning ‘throw’. The distinction between (44) and (45) again depends on the speaker’s position (cf. ex. (13) – (16) in section 2.2). The event structure in examples (44) and (45) lets us suspect that Tima falls under type-I languages. However, consider next examples (46) and (47):

(46)  
\[ \text{wəɾ'tsəmáddəh} \ \text{ān-də} \ \text{ā-l-ʔə} \ (\text{ān-} \text{cə}^{12}) \ \text{ū-lō-wářənə} \]  
\text{man TAM-stand.up SOURCE-LOC-home TAM-go GOAL-LOC-mountain}  
\text{‘the man went from home to the mountain’}  

Ex. (46) either consists of two sub-events encoded in one verb, the source being referred to by the source-marker \text{a-} and the goal by the goal-marker \text{V-} on the respective nouns, or each sub-event requires a verb, the two locations likewise being marked by source and goal markers, respectively.

(47)  
\[ \text{wəɾ'tsəmáddəh} \ \text{ān-də} \ \text{ā-Lũ-můrək} \ \text{ān-tə} \ \text{ā-Diğənə} \ \text{ā-Kərətům} \]  
\text{man TAM- SOURCE-LOC- TAM- SOURCE- GOAL- stand.up Tima pass Dilling Khartoum}  
\text{‘the man went from Tima via Dilling to Khartoum’}^{13}  

---

12 \text{-cə} is the root form of the verb ‘go’ which only occurs in the perfective, the imperfective root being \text{di-}.
13 When Tima people speak Sudanese Colloquial Arabic, one may also observe interference from their first language in this respect. Compare the version spoken by first language speakers of Sudanese colloquial Arabic in (a) with the version uttered by a Tima man (b) speaking Arabic. While the mother-tongue Arabic speaker uses the preposition \text{bi} ‘through’, Tima speakers sometimes use the preposition \text{min} ‘from’.

a)  
\text{mafa} \ \text{al-raluj} \ \text{min} \ \text{Tima} \ \text{ila} \ \text{al-Khartoum} \ \text{maraan bi} \ \text{aldiln} \ \text{Leave:PAST} \ \text{DEF-man} \ \text{Tima} \ \text{PREP} \ \text{Tima} \ \text{PREP} \ \text{DEF-Khartoum} \ \text{3sg.pass through} \ \text{DEF-Dilling}  
\text{‘the man went from Tima via Dilling to Khartoum’}  

b)  
\text{mafa} \ \text{al-raluj} \ \text{min} \ \text{Tima} \ \text{ila} \ \text{al-Khartoum} \ \text{maraan min} \ \text{aldiln} \ \text{Leave:PAST} \ \text{DEF-man} \ \text{Tima} \ \text{PREP} \ \text{Tima} \ \text{PREP} \ \text{DEF-Khartoum} \ \text{3sg.pass from} \ \text{DEF-Dilling}  
\text{‘the man went from Tima via Dilling to Khartoum’}
In ex. (47), both departure from a source and arrival at a goal are integrated into a single verb ( ámbs, ‘TAM.stand.up’), whereas the intermediate passing point requires another verb ( ámb³, ‘TAM.pass’). This is a first indication that Tima belongs to type-II. A closer look at ex. (43) – (46) shows that in all four sentences only two reference points are explicitly mentioned. In ex. (43) and (44), this is the passing point and the goal. We find the familiar source and direction-markers with the intermediate location (‘fence’) and the goal (‘street’), respectively. The starting point (= source) of the movement of the figure here is not explicitly mentioned, but instead implicitly inferred as the place where the agent was located. In ex. (46) and (47), though, we find exactly this mentioning of the starting point: ámbs ‘from home’ and ámb³r ‘from the Tima area’ and we thus need a second verb to cover the third, the intermediate, location, e.g. in ex. (47). This raises the question whether Tima belongs to type-II after all, since only two reference points allow the use of one verb only. If there is a third reference point mentioned, we need a second verb.

Bohnemeyer at al. (2007), however, make clear that the number of verb phrases is not the decisive factor to deduce the number of macro-event expressions. In order to prove that each of the afore-mentioned events is considered as having macro-event property, we use the criterion of negation and the use of time adverbials as applicable tests of MEP in Tima (following the suggestions of Bohnemeyer et al. 2007: 500f).

Negation in Tima is expressed simultaneously by the proclitic kV- attached to the first verb and the enclitic -²η, which is attached to the final constituent in a clause. Consider example (48) and its negative counterpart in (49).

(48) ãyi mšk-ìŋ
  go.IMP:SG drink.IMP:SG-VENT

(49) ká-à-dììk mššk-ìŋ-³ŋ
  NEG-2SG-walk 2SG-drink-VENT-NEG

‘go, drink and come’

The negation of sentence (46) is shown in ex. (50) (note the absence of the TAM-marker with the obligatory verb and the change of TAM-marker with the second verb):

(50) waštšmáá’dšh kú-dšh á-l₃š
  man NEG-stand.up SOURCE-LOC-home TAM-go GOAL-LOC-mountain-NEG
‘the man did not leave home (and went) as far as the mountain’

Consider also ex. (51), which contains three verbs. The discontinuous negation marker has scope over a construction starting with the first verb and concluding with the final word of the clause or sentence. The two more verbs are thus contained within the scope of the negation marker, and all three sub-events are affected.

(51) ká-diŋká-diŋ
  NC.SG-ball NEG-fall-VENT

á-k-áćuk
  SOURCE-NC.SG-baobab TAM-pass-VENT

‘the ball didn’t roll from the baobab-tree past the house into the well (speaker at the well)’

14 Type-I languages “are either satellite-framed on Talmy’s (1985, 2000) lexicalization typology and thus permit multiple path phrases in a single verb phrase, or they have multiverb constructions that string multiple location-change-denoting VPs together to form macro-event expressions” (Bohnemeyer et al. 2007: 524).
Negation marking in the previous sentences thus expresses scope not only over the first verb and thereby the first sub-event, but in fact embraces the whole event, thereby showing the coherence of the whole multiverbal clause having the MEP.

Consider now the use of time adverbials and compare ex. (52) with ex. (47). A time adverbial refers to all sub-events, as in ex. (52). The two verb phrases then still form one macro-event expression.

(52) \(\text{wàr̃tšmáà'dšh \ án-\džò \ á-Lú-múřik \ án-tōò \ á-Dlíŋ \ ś-Kàr̃tůʊm \ kūlā} \)

\text{man \ TAM- \ SOURCE- \ TAM- \ SOURCE- \ GOAL- \ yesterday}

\text{stand.up \ LOC-Tima \ pass \ Dilling \ Khartoum}

‘yesterday, the man went from Tima via Dilling to Khartoum’

If we want a time adverbial to refer to a sub-event, we have to break down the event into its sub-events first and then assign a separate verb (\(\text{ãñdžò \ ‘TAM.stand.up’, ãñtōò \ ‘TAM.pass’ and ãñcžò \ ‘TAM.arrive’}) for each sub-event (so that we get three macro-events, instead of one), see ex. (53):

(53) \(\text{wàr̃tšmáà’dšh \ án-\džò \ á-nťō \ Lú-múři’k \ ki-néé}

\text{man \ TAM-stand.up \ SOURCE-SPEAKER.THERE \ LOC-Tima \ NC.SG-sun}

\(\text{ňj-káŋ̌á’hýá \ án-tōò \ á-Dlíŋ \ ki-néé \ tûţǎ} \)

\text{INSTR-morning \ TAM-pass \ SOURCE-Dilling \ NC.SG-sun \ above \ TAM-arrive}

\(\text{ś-Kàr̃tůʊm \ ki-néé \ kūlā’ńkūlā}

\text{GOAL-Khartoum \ NC.SG-sun \ ideophone}

‘the man left Tima in the morning, passed Dilling at noon and reached Khartoum in the evening’ (speaker in Tima)

To sum up the section on MEP: Tima employs different construction types when combining sub-events. We may find one verb which refers to the notions of SOURCE and GOAL, or ROUTE and GOAL. If all three notions are explicitly mentioned, we need at least two verbs, but three are possible as well. The conceptual unit, independent from the construction type, is the whole event (the macro-event), as demonstrated with the negation of some examples. Negation has scope over the complex event, which thus has the MEP. The use of time adverbials is another proof for the coherence of the complex event. A single adverbial has scope over all sub-events. The event has to be split up into three independent clauses (i.e., into three macro-events) with one verb each, if we use different time adverbials for each sub-event.

4.2 Alloying

The ventive marker \(-Vʊ\) in Tima indicates a movement directed towards the deictic centre (= the speaker). As shown in the previous paragraph, it may occur with motion verbs such as ‘walk’ or with verbs that cause the motion of an object, as with ‘throw’. Both scenes are judged as simple motion events. However, the ventive marker may also occur as a derivational suffix on other verb roots, which intuitively are not associated with (a coming) motion, like ‘drink’ or ‘build’. Consider examples (54) and (55):
The situation could be pictured as follows: Speaker and listener are standing together when the command is uttered. Then the speaker changes his location from a position beside the listener (= agent) and moves to a new location (1). The listener is supposed to do what he was told to do (2), in this case to drink and to build the house, respectively, and then move (3) to the place where the speaker went (see Figure 3). The listener should understand that the speaker’s new location is the endpoint of the action. Although a lot of going and coming is involved (= complex motion event), Tima grammar requires one verb only to achieve the intended meaning.

Figure 3. Representation of examples (54) and (55)

The scenery is again different, when the two participants of speech, speaker and listener (agent), are at the same place and the speaker orders the listener to go (away from the deictic centre) to a certain location (1), in order to perform an action (2) and to return (3) afterwards to the speaker, who remains at the starting point (see figure 4).

Here we need two verbs; consequently, we have a multi-verb construction in a single clause (see the discussion on macro-event property above).
There is another way of coding a highly similar meaning. Again, we need two verbs: the verb ‘go’ and the verb indicating the main action. Contrary to examples (56) and (57), the second verb in (58) and (59), respectively, is marked by the proclitic \textit{mV}- plus the person marker. The interpretation is ambiguous between a sequential and a purposive reading (cf. Dombrowsky-Hahn in this volume for a description of similar phenomena in Syer).\textsuperscript{15}

(58) \textit{\textit{áyí má-á-mášk-įŋ}}
goIMP:SG \textit{PURP-2SG-drink-VENT} 'go and/to drink and come'

(59) \textit{\textit{áyí má-á-kūr-įŋ}}
goIMP:SG \textit{PURP-2SG-take-TRVENT} 'go and/to take it and come'

In Tima, thus not only multi-verb constructions may have MEP properties. Also single verbs may comprise the notion of performance of an action and subsequently moving towards the speaker (the deictic centre) by the same agent, thereby conveying a complex event. If the core meaning is a motion event, the motion is exercised towards the speaker (e.g. \textit{díkíŋ} ‘come (walk) here’). If the core meaning is a non-motion event, the conversational implicature is that the act is performed first before the agent approaches the speaker, e.g. \textit{máškíŋ} ‘drink and come (towards the speaker)’ or \textit{kúrtiŋ} \textit{kúrtí ‘build the house and come’}. Thus, the ventive may mark simultaneous as well as sequential actions. We call this conceptual conflation or expression of macro-events into one phonological word \textit{alloying}. A macro-event expressed by one (phonological) word (marked for the ventive), i.e. the combination of two events, a basic element (here the verb with its core meaning) and an alloying element (here the ventive marker), is referred to as an \textit{alloy} in the present study.

It is not known to what extent this pattern is common in other Niger-Congo languages spoken in the Nuba Mountains. Similar patterns, however, are found in different Eastern Sudanic (Nilo-Saharan) languages and language groups, for example, Temein (in the Nuba Mountains), Nilotic and Surmic (which are spoken south and southeast of the Nuba Mountains). Compare the following examples from Nilotic (discussed in more detail in Dimmendaal to appear b):

\textsuperscript{15} Note the absence of the sequential/purposive marker \textit{mV}- in negated sentences. See the section on negation in macro-event expressions above.
Maasai (Eastern Nilotic):  
*e-dol-un-i*  
3-see-VEN-PASS  
‘(s)he is seen coming this way’

Datooga (Southern Nilotic):  
*nilag-u*  
3:cut-VEN  

*nilaj-aani*  
1. ‘(s)he has been cutting while coming my way’  
3:cut-SIM:VEN  
2. ‘(s)he came while cutting’

It remains to be determined, therefore, to what extent we are dealing with areal diffusion of a semantic mapping system, possibly from Eastern Sudanic languages in the area.

Location, direction and goal are marked periphrastically in Tima (by way of proclitic prepositional elements, or alternation for the noun-class prefix in the case of locative marking). Head marking on the verb, as with the ventive, thus is exceptional as a morphosyntactic strategy for this semantic domain. Alloying shows why other (economy) principles may override this principle. From a speaker’s point of view, alloying, i.e. the conflation of sememes expressing different events into one phonological word, results in a clear property enhancement, namely the conveyance of a complex situation or event structure in an economic way. Slobin (2004) points out that expression by a single word rather than a phrase or clause as a coding strategy also provides advantages for the hearer in terms of processing. These phenomena in Tima and other languages in the area also require a revision of the typology developed by Leonard Talmy into satellite-framed and verb-framed languages, a point also raised for a number of reasons by Slobin (2004). Path elaboration, and tightness of packaging of the path component, potentially results in the expression of Manner and Path in one and the same verb in Tima and other languages.

Wilkins (2004: 156) makes a rather intriguing observation in this respect on the basis of an investigation of motion events in the Australian language Arrernte, whose speakers also pay great attention to details concerning path. “We are left to ponder, then, what is the relative contribution of linguistic typology versus culture in sensitizing children to the narrative interests and rhetorical style preferred by the adult members of their speech community.”

Data from Tima provide further support for this position. Whenever a speaker was or is close to some action or event happening, the information presumably is more reliable than otherwise. Tima speakers prefer to be explicit about this cognitive state. The inferred meaning or conversational implicature, a clear specification of the location of the speaker, may therefore be assigned to the field of evidentiality marking. Dimmendaal (2000: 192) points out in this respect that “[r]outine culture-specific patterns of usage can harden into language-specific morphosyntactic constructions, ‘tailor made’ to meet the communicative needs of the speech community. That culture-related semantics can be built into a morphological or morphosyntactic construction is clear from location-marking systems.”
5. Summary

We have demonstrated in section 2 that two of the three frames of reference as outlined in Levinson (2003) are attested in the Tima language: the absolute and the relative frame of reference.

We presented the cardinal directions as examples of an absolute frame of reference (environment-centred):

- **dòkwàllì** ‘north; left’
- **dòkòmdìl** ‘south; right’
- **lìnìţì** ‘east; up’
- **lìfì** ‘west; down’

Although cardinal directions are associated with an absolute frame of reference, etymologically the terms derive from an intrinsic frame of reference in Tima. The **figure** is to the east (namely at the mouth) of the **ground**, for example, or it is to the south (namely at the “correct” side) of the ground. Using intrinsic notions like ‘left’ and ‘right’ (or ‘front/back’, ‘up/down’) to express absolute notions is very common cross-linguistically. Compare the following examples based on Dimmendaal and Rottland (1996):

**Keyo (Kalenjin, Southern Nilotic):**
- **tai** ‘right; south’
- **let** ‘left; north’

**Cornish (Celtic, Indo-European):**
- **cleth** ‘left; north’

**Maori (Polynesian, Austronesian):**
- **sema** ‘left; south’

We presented other examples of absolute thinking in **tàmáá dìmùàrìk**, which are used mainly in the familiar homeland, where general directions are given by mentioning the neighbouring ethnic groups, e.g.: **àyìn Lìmùìrík** ‘go towards Tulishi’. When describing the way to some other place in the Tima area, prominent landmarks are picked, like **Kòkwàn Kùlàl ‘Kulul’ passage** which is a mountain pass between two of the higher hills, or **kò̀cúk kòòsò̀róòk**, the ‘hollow baobab’, a well-known tree in the area; alternatively, the hills serve as reference points, e.g.: **ící ìyìn Òmàwò ‘we go towards Òmàwò’**.

With the relative frame of reference (viewer-centred) the position of **Ego** plays a central role. Indicators in the language are the ventive marker on verbs (involving not only motion verbs) and prepositions plus locative forms for nouns. The locative-marking for noun classes of course are reminiscent of Bantu locative classes, and thus may reflect archaic properties of the Niger-Congo phylum.

The position of the speaker (Ego) apparently is of great importance in Tima discourse, as it is marked on the verb (by way of a ventive suffix) as well as on nouns and prepositions.

- **à-li-ò̀jì**
  - **SOURCE-LOC-east**
  - ‘from the east’
  - (speaker not in the east)

- **à-ntì-ò̀jì**
  - **SOURCE-SPEAKER.THERE-east**
  - ‘from the east’
  - (speaker in the east)

If the speaker is not considered to be at the starting point or at the goal, we find neither a ventive marker nor the speaker’s position marker.
(60) Kwakwaŋ ṣān-dōwā ñ-li-ŋēe
Kwakwaŋ TAM-go.down SOURCE-LOC-east
‘Kwakwaŋ went down from the east’
‘Kwakwaŋ went down from the top’

If the speaker is involved on the other hand, both markers may be present:

(61) di-y-ľŋ ṣēb-lāh
walk-EE-VENT SPEAKER.THERE-field
‘come to the field (where I am)’

To what extent this cognitive domain (as well as others) is also subject to areal variation can only be established once similar descriptive and/or documentary projects have been carried out on other languages in the Nuba Mountain area, which remain among the poorest studied regions on the African continent.

- Research on Tima was made possible through a grant from the Volkswagen Foundation programme for the documentation of endangered languages. We would like to express our deeply felt gratitude to the Volkswagen Foundation for this generous support, and to the Timan people in general and Hamid Kafi and Am Nasraldeen in particular, for the many hours they spent on explaining the intricacies and semantic subtleties of their fascinating language. The authors would also like to thank the editors Angelika Mietzner and Ulrike Claudi for their detailed comments and questions and Monika Feinen for designing the map and the figures.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>antipassive</td>
</tr>
<tr>
<td>BEN</td>
<td>benefactive</td>
</tr>
<tr>
<td>COMPL</td>
<td>completive marker</td>
</tr>
<tr>
<td>COP</td>
<td>copula</td>
</tr>
<tr>
<td>DEF</td>
<td>definite</td>
</tr>
<tr>
<td>DEM</td>
<td>demonstrative</td>
</tr>
<tr>
<td>DEM1</td>
<td>proximal demonstrative</td>
</tr>
<tr>
<td>DEM2</td>
<td>distal demonstrative</td>
</tr>
<tr>
<td>DIR</td>
<td>directional</td>
</tr>
<tr>
<td>EE</td>
<td>epenthetic element</td>
</tr>
<tr>
<td>FOC</td>
<td>focus marker</td>
</tr>
<tr>
<td>GOAL</td>
<td>goal marker</td>
</tr>
<tr>
<td>IMP</td>
<td>imperative</td>
</tr>
<tr>
<td>INSTR</td>
<td>instrument</td>
</tr>
<tr>
<td>LOC</td>
<td>locative</td>
</tr>
<tr>
<td>NC</td>
<td>noun class</td>
</tr>
<tr>
<td>NEG</td>
<td>negation marker</td>
</tr>
<tr>
<td>PASS</td>
<td>passive</td>
</tr>
<tr>
<td>PAST</td>
<td>past tense</td>
</tr>
<tr>
<td>POSS</td>
<td>possessive</td>
</tr>
<tr>
<td>SG</td>
<td>singular</td>
</tr>
<tr>
<td>SIM</td>
<td>simultative</td>
</tr>
<tr>
<td>SOURCE</td>
<td>source marker</td>
</tr>
<tr>
<td>TAM</td>
<td>tense/aspect/mood</td>
</tr>
<tr>
<td>TR</td>
<td>transitive</td>
</tr>
<tr>
<td>VENT</td>
<td>ventive</td>
</tr>
</tbody>
</table>
References


Verbal directionality and argument alternation in Dinka

Torben ANDERSEN

Abstract

The derivational morphology of verbs in Dinka includes a distinction between direction towards the deictic center (centripetal) and a direction not towards the deictic center (centrifugal). A goal adverbial requires a directional verb, and an object of such a verb refers to something that moves to(wards) an explicit or implicit goal. The object of a directional verb may play another role in the event described by the sentence than the object of the corresponding simple (and non-directional) verb. This gives rise to so-called argument alternation, in that, for instance, an object and an instrumental adverbial of a simple verb may correspond to, respectively, a goal adverbial and an object of the directional verb. Another type of argument alternation results from the possibility of expressing a goal as an object of an applicative verb with an intransitive or transitive base.

1. Introduction

In Dinka, a Western Nilotic language spoken in South Sudan, the derivational morphology of verbs includes a distinction between direction towards the deictic center (centripetal) and direction towards an explicit or implicit goal which is different from the location of the deictic center (centrifugal). Another derivational category is the applicative, which promotes an otherwise adverbial constituent to the syntactic status of object.

A goal adverbial requires a directional verb, and an object of such a verb refers to something that moves to(wards) an explicit or implicit goal. The object of a directional verb may play another role in the event described by the sentence than the object of the corresponding simple verb. Moreover, the applicative may promote a goal adverbial to object status. Thus, verbal derivation may involve what Levin and Hovav (2005: 17) call “argument alternation”.

The purpose of the present article is to investigate some of the argument alternations that accompany or may accompany alternations between simple verbs, directional verbs and applicative verbs. The article is organized as follows. Section 2 briefly summarizes (i) some aspects of clause structure, (ii) some aspects of the derivational morphology of verbs, (iii) the form and function of place adverbials, and (iv) the combinability of place adverbials with verbs according to the derivational status of the latter. Section 3 exemplifies the use of transitive verbs that do not involve argument alternation when they change derivational status.

1 I wish to thank the Danish Research Council for the Humanities for grants for my research on the Dinka language. I also wish to thank my principal Dinka consultants Kuyok Abol Kuyok, David Daniel Marial and Peter Gum Panther for their assistance. Some of the content of the present article was presented at the workshop Directionality in Grammar and Discourse: Evidence from African Languages, Institute of African Studies, University of Cologne, June 10–11, 2010 and at Nordic Africa Days 2010, Åbo/Turku, September 30 – October 1, 2010; I wish to thank the participants of these gatherings for comments.

2 The term “argument” is here used in the sense of a clause consisting semantically of a predicate and a number of arguments.
from simple to directional. Section 4 tentatively suggests a semantic classification of transitive verbs whose object undergoes argument alternation when they change from simple to directional such that what could otherwise be expressed as an adverbial is expressed as an object. Section 5 deals with certain verbs of giving or transaction whose shift from simple to centrifugal involves a shift in the direction of what is transferred, as referred to by the object. Section 6 accounts for argument alternations occurring when intransitive and transitive simple verbs undergo applicative derivation, especially when a goal adverbial becomes an object. Section 7 is a conclusion. The variety of Dinka dealt with is the Agar dialect.

2. Morphosyntactic preliminaries

2.1 Clause structure

The order of clausal constituents in Dinka is rather fixed, as shown in Table 1, which is a simplified schema for independent declarative clauses. The first row in the table labels seven slots according to their syntactic function, and the second row specifies morphological features of the constituents that may occur in these slots. The clause obligatorily contains a finite verb, which occurs in the second slot. It is obligatorily preceded by an overt or covert noun phrase, which is in the absolutive case, and which I label “topic”. Attached to the finite verb is a declarative proclitic particle, which exhibits number agreement with the (overt or covert) topic. Other constituents, if present, occur after the finite verb and in the following order: (i) subject, in the oblique case, (ii) primary object, in the absolutive case, (iii) if the finite verb is an auxiliary, one or more non-finite verbs, the last of which is the main verb, (iv) secondary object or subject predicative, in the absolutive case, (v) one or more adverbials. The topic is usually a constituent that would otherwise occur in postverbal position as subject, primary object or adverbial. If the subject is selected as topic, the finite verb has an inflectionally unmarked form; otherwise it has some inflectionally marked form. For details on the clause schema, see Andersen (1991 and 2007).

Table 1. Order of clausal constituents in declarative clauses

<table>
<thead>
<tr>
<th>Topic</th>
<th>Verb</th>
<th>Subject</th>
<th>Prim. obj.</th>
<th>Verb(s)</th>
<th>Sec. obj.</th>
<th>Adverbial(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[absolutive]</td>
<td>[finite]</td>
<td>[oblique]</td>
<td>[absolutive]</td>
<td>[non-finite]</td>
<td>[absolutive]</td>
<td></td>
</tr>
</tbody>
</table>

2.2 Verbal derivation

A verb is either simple or derived. A simple verb is underived in the sense that it contains no derivational morphemes (or “verbal extensions”) in addition to the verbal root. Phonologically, the inflectionally unmarked form of a simple verb has one of the two shapes \( cvc_1 \) and \( cvc_1 \); that is, it has a low-toned short or medium vowel (see footnote 5), and its vowel quality alternation grade is “1”, as defined in Andersen (1993) and as indicated by the subscript number.4

There are at least some ten derivational morphemes, and all of them are expressed by phonological alternations in the root, not by affixation. Among the derivational morphemes

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3 The distinction between the oblique case and the absolutive case is neutralized in many nouns. Nouns that distinguish the oblique from the absolutive are marked as “OBL” and “ABS” in the interlinear morphemic translation, while nouns that do not make this distinction are left unmarked.

4 In shape indications like “\( cvc_1 \)”, I disregard the fact that the initial consonant may be followed by a glide. Grade 1 is the basic grade. The main difference between grade 2 and grade 1 is that grade 2 has the vowel quality /ɛ/, where grade 1 has the vowel quality /a/.
are the centripetal (or ventive), the centrifugal (or itive), and the applicative. The centripetal indicates direction towards the deictic centre, and the centrifugal indicates direction to(wards) an explicit or implicit goal which is different from the deictic centre. The applicative increases the valency of its base by adding an object, so that an intransitive verb becomes transitive, and a transitive verb ditransitive.

Table 2 shows a small sample of simple (non-directional) verbs and their centrifugal, centripetal and applicative counterparts in their inflectionally unmarked form. The roots in the upper part of the table are transitive, those in the lower part are intransitive. For a description of the morphology of verbs with transitive roots, see Andersen (1992-1994). The inflectionally unmarked form of a centrifugal verb has one of the four shapes $\text{FYYF}_2$, $\text{FYYF}_2$, $\text{FYYYF}_2$ and $\text{FYYYF}_2$; that is, it has a medium or long vowel and a high or falling tone, and its vowel quality alternation grade is “2”. The inflectionally unmarked form of a centripetal verb has one of the two shapes $\text{cYvc}_2$ and $\text{cYvc}_2$; that is, it has a low-toned medium or long vowel with breathy voice quality, and its vowel quality alternation grade is “2”. An applicative verb in its inflectionally unmarked form has one of the three shapes $\text{cYvc}_2$, $\text{cYvc}_2$ and $\text{cYvc}_2$; that is, it has a medium vowel with a high or falling tone or a long vowel with a falling tone, its vowel has the breathy voice quality, and its vowel quality alternation grade is “2”. As can be observed in the table, directional derivation is not restricted to motion verbs, such as $\text{bYr}$ ‘take along’ and $\text{kwYer}$ ‘flow’, but may also be used with roots that do not denote motion, such as $\text{fYr}$ ‘water’ and $\text{tYuk}$ ‘play’.

**Table 2. Examples of verbal derivation, cited forms being inflectionally unmarked**

<table>
<thead>
<tr>
<th>Simple</th>
<th>Centrifugal</th>
<th>Centripetal</th>
<th>Applicative</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\text{bYr}$</td>
<td>$\text{bYer}$</td>
<td>$\text{bYer}$</td>
<td>‘take along’</td>
</tr>
<tr>
<td>tr. $\text{tYem}$</td>
<td>$\text{tYeeem}$</td>
<td>$\text{tYeeem}$</td>
<td>‘cut’</td>
</tr>
<tr>
<td>$\text{cYsl}$</td>
<td>$\text{cYsool}$</td>
<td>$\text{cYsool}$</td>
<td>‘call’</td>
</tr>
<tr>
<td>$\text{piik}$</td>
<td>$\text{piik}$</td>
<td>$\text{piik}$</td>
<td>‘push’</td>
</tr>
<tr>
<td>intr. $\text{pYr}$</td>
<td>$\text{pYeer}$</td>
<td>$\text{pYeer}$</td>
<td>‘fly’</td>
</tr>
<tr>
<td>$\text{kwYer}$</td>
<td>$\text{kwYeer}$</td>
<td>$\text{kwYeer}$</td>
<td>‘flow’</td>
</tr>
<tr>
<td>$\text{tYuk}$</td>
<td>$\text{tYuuk}$</td>
<td>$\text{tYuuk}$</td>
<td>‘play’</td>
</tr>
<tr>
<td>$\text{uYer}$</td>
<td>$\text{uYeer}$</td>
<td>$\text{uYeer}$</td>
<td>‘spread’</td>
</tr>
</tbody>
</table>

2.3 Place adverbials

Place adverbials perform one of three semantic roles: location, source and goal. As demonstrated in Andersen (submitted), place adverbials fall into five major types in terms of their form: (i) a noun or complex noun phrase in the essive/ablative case, (ii) a noun or complex noun phrase in the allative case, (iii) a noun in the general locative case, which neutralizes the contrast between the allative and the essive/ablative, (iv) a prepositional phrase with the multipurpose preposition $\text{nYh}$, mostly extended with a body part noun, and (v) a prepositional phrase with the locative preposition $\text{tYen}$ or $\text{tYen}$. Place adverbials in the essive/ablative case encode a location or a source, while place adverbials in the allative case

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5 The notation basically uses IPA. Thus, $\text{Y}$ is a palatal glide, and $\text{Y}$ is a voiced palatal stop. However, $\text{Y}$, $\text{Y}$, $\text{Y}$ are interdental stops, not dental stops. There are two contrastive voice qualities in the vowels: breathy $\text{Y}$ and non-breathy or creaky $\text{Y}$. A vowel carries one of three contrastive tones: low $\text{Y}$, high $\text{Y}$ and falling $\text{Y}$. And there are three contrastive degrees of vowel length: short $\text{Y}$, medium $\text{YY}$ and long $\text{YYY}$. The diacritics that symbolize voice quality or tone are placed beneath and on top of the first of a sequence of vowel symbols. For an introduction to the phonology of the Agar dialect, see Andersen (1987).
encode a goal. The other types of place adverbials do not distinguish between the three spatial roles, but their interpretation is (partly) determined by the derivational status of the verb.

2.4 Combinability of verbs with place adverbials

In clauses with a single place adverbial there are constraints on the combinability between, on the one hand, verbs with a given derivational status and, on the other, place adverbials in the allative case or the essive/allative case (Andersen (submitted)). As displayed in Table 3 with “+” and “−”, a simple verb, which is non-directional, can only combine with an adverbial in the essive/alliative case, with the semantic role of location or source; it cannot combine with the allative case. Conversely, a centrifugal verb can only combine with the allative case, with the semantic role of goal. A centripetal verb can combine with both the allative case, with the role of goal, and with the essive/alliative case, but only with the role of source.

Table 3. Combinability between verbs with a given derivational status and place adverbials in the allative case or the essive/allative case in clauses with a single place adverbial

<table>
<thead>
<tr>
<th>verbs</th>
<th>allative</th>
<th>essive/allative</th>
<th>← cases</th>
<th>← semantic roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>simple</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>centrifugal</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>centripetal</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

As for place adverbials that do not encode the distinction between location, source and goal, their interpretation is (partly) determined by the derivational status of the verb in a corresponding way. Thus, if the verb is simple, the adverbial is (ambiguously) either a location or a source; if the verb is centrifugal, the adverbial is a goal; and if the verb is centripetal, the adverbial is (ambiguously) either a goal or a source.

The possible combinations of verbs and place adverbials are illustrated in Section 3 below.

3. Directionality without argument alternation

With some transitive verbal roots, directional derivation has no consequence for the choice of object among the potential participants in the event denoted by the verb. That is, the object of the directional verb is the same as that of the corresponding simple verb. This is the case with, for instance, verbal roots that denote motion, such as göl ‘pull’, ḏoq ‘send’ and ḏīk ‘return’. The use of these verbs and their directional counterparts is illustrated in (1)-(3), with a simple verb in the (a)-clauses, a centrifugal verb in the (b)-clauses, and a centripetal verb in the (c)-clauses. These clauses also illustrate the combinability of such verbs with place adverbials.

In (1) the object of ‘pull’ is ʾeṯn ‘cow’, and the locative noun ṭoḥq ‘in/from/to the swamp’ is a place adverbial. The semantic role of this adverbial depends on the derivational status of the verb. In combination with the simple verb ḏōl, it has the semantic role of either location or source (1a), with the centrifugal verb ḏōl it has the semantic role of goal (1b), and with the centripetal verb ḏēl it has the semantic role of either goal or source (1c).

6 When a place adverbial is cited in the text, the translation “in/from/to ...” (and the like) indicates that the adverbial is neutral with respect to the distinction between a location, a source and a goal, while “in/from ...” indicates that it is in the essive/ablative case, and “to ...” that it is in the allative case.
VERBAL DIRECTIONALITY AND ARGUMENT ALTERNATION IN DINKA

(1a)  ḏ̀k à=tèl wèŋ tòoc.
    boy  D=pull cow:ABS swamp:LOC
    ‘The boy is pulling a cow in/from the swamp.’

(1b)  ḏ̀k à=tèel wèŋ tòoc.
    boy  D=pull:CF cow:ABS swamp:LOC
    ‘The boy is pulling a cow to the swamp.’

(1c)  ḏ̀k à=tèel wèŋ tòoc.
    boy  D=pull:CP cow:ABS swamp:LOC
    (i) ‘The boy is pulling a cow to the swamp (where we are).’ or
    (ii) ‘The boy is pulling a cow from the swamp (towards us).’

In (2) the object of ‘send’ is ràaan ‘person’. The simple verb tòoc combines with the
esssive/ablative noun wūt-ʒc ‘in/from the cattle camp’ as a source adverbial in (2a); the
centrifugal verb ŋòoc and the centripetal verb tùuoc combine with the allative noun wūt ‘to
the cattle camp’ as a goal in (2b-c).

(2a)  báŋ à=tòoc ràaan wūt-ʒc.
    chief:ABS D=send person:ABS cattle.camp-ESS/ABL
    ‘The chief is sending a person from the cattle camp.’

(2b)  báŋ à=tòococ ràaan wūt.
    chief:ABS D=send:CF person:ABS cattle.camp:ALL
    ‘The chief is sending a person to the cattle camp.’

(2c)  báŋ à=tùuuc ràaan wūt.
    chief:ABS D=send:CP person:ABS cattle.camp:ALL
    ‘The chief is sending a person to the cattle camp (where we are).’

In (3) the object of ‘return’ is wèŋ ‘cow’. The prepositional phrase tòŋ ràn nèŋ ē
‘with/from/to the person who has it’ is a source adverbial when combined with the simple
verb ḏ́k (3a), and a goal adverbial when combined with the centrifugal verb ḏ́k (3b). In
(3c) the allative noun cèeen ‘back’ is a goal adverbial in combination with the centripetal
verb gòok, the non-finite form corresponding to the inflectionally unmarked form ḏ́k.

(3a)  báŋ à=ḏ́k wèŋ tòŋ ràn nèŋ ē.
    chief:ABS D=return cow:ABS [LOC [person:CS1 [have 3SG:ABS]]]
    ‘The chief is returning the cow from the owner.’

(3b)  báŋ à=ḏ́k wèŋ tòŋ ràn nèŋ ē.
    chief:ABS D=return:CF cow:ABS [LOC [person:CS1 [have 3SG:ABS]]]
    ‘The chief is returning the cow to the owner.’

(3c)  wèŋ à=cèen gòok cèeen ēbáŋ.
    cow:ABS D=PF:PAS return:CP:NF back:ALL all
    ‘The cows have all been brought back.’ (t.)

7 Square brackets in the interlinear translation enclose complex constituents.
8 ‘(t.)’ after the translation of an example indicates that the example is from my text corpus.
Many verbal roots that do not denote motion behave in the same way. Here the directional verbs imply that the object moves to a goal. This is illustrated in (4)-(6) with the verbs kw<l ‘steal’, kH< ‘untie’ and kw<H ‘break’. Again, the verb is simple in the (a)-clauses, centrifugal in the (b)-clauses, and centripetal in the (c)-clause.

(4a) cwïar ã=kw<l uï<k.
thief:ABS D=steal cow:PL:ABS
‘The thief is stealing cows.’

(4b) cwïar ã=kw<el wï< tï<oc.
thief:ABS D=steal:CF cow:ABS swamp:LOC
‘The thief is stealing the cow, taking it to the swamp.’

(4c) cwïar ã=kw<el wï< pê<en.
thief:ABS D=steal:CP cow:ABS town:LOC
‘The thief is stealing the cow, bringing it to the town.’

(5a) më< ã=l<øn uï<k.
child D=untie cow:PL:ABS
‘The child is untying the cows.’

(5b) më< ã=l<øn uï<k rï<or.
child D=untie:CF cow:PL:ABS bush:LOC
‘The child is untying the cows (so that they go) into the bush.’

(6a) ãï< ã=kw<H tï<øn.
woman D=break pot
‘The woman is breaking a pot.’

(6b) ãï< ã=kw<Hem tï<øn ïï<.
woman D=break:CF pot ground:ALL
‘The woman is knocking a pot down, breaking it.’

The events described by clauses with directional verbs in (4)-(6) would seem to consist of two subevents. In (4b), for instance, the action of stealing a cow (the basic event, as denoted by the root component of the verb and its object) is combined with the cow’s being moved to the swamp (the motion event, as expressed by the centrifugal extension of the verb and the locative noun tï<oc). Thus, the object of the directional verbs in (4)-(6) has two different semantic roles: It is a “patient” in the sense of something affected by the action, and it is a “theme” in the sense of something being moved, cf. Jackendoff (1990). In (4)-(5) the motion event follows the basic event, while in (6) it precedes the basic event.

4. Directionality with argument alternation

With some transitive roots the shift from the simple verb to a directional verb may be accompanied by a shift in the participant that is selected as object, and which thereby becomes the entity which is moved to a goal. It is not clear whether the roots that behave in this way can be defined semantically as a whole, but some semantically fairly homogeneous subclasses may seem identifiable, as tentatively suggested and illustrated in the following subsections.
4.1 Verbs that imply an instrument

One semantic class of transitive verbal roots that exhibit argument alternation consists of verbs which imply that an agent affects a patient by moving an instrument to the patient. Such roots are, for instance, *gūt* ‘stab’, *gwēŋ* ‘carve’, *jūp* ‘hit’, *bōk* ‘throw at’, *fār* ‘spear’, *kāl* ‘fan’, *mōc* ‘shoot’, *qōt* ‘cut’ and *pwōow* ‘pierce’. While simple verbs with these roots have the patient as object, the corresponding centrifugal and centripetal verbs typically have the instrument as object. This is illustrated with the root *gūt* ‘stab’ in (7). In (7a) the simple verb *gūt* has a patient-object, *wēŋ* ‘cow’. In (7b-c), by contrast, the centrifugal verb *gūut* and the centripetal verb *gūut* have an instrument-object, *tēŋ* ‘spear’.

(7a) à=gūt wēŋ.
D=stab cow:ABS
‘He is stabbing a cow.’

(7b) à=gūut tēŋ.
D=stab:CF spear:ABS
‘He is stabbing a spear (into something).’

(7c) à=gūut tēŋ.
D=stab:CP spear:ABS
‘He is stabbing a spear hither (into something).’

In (7a) no instrument is mentioned, and in (7b-c) no patient is mentioned. However, a patient and an instrument may co-occur, and they may do so in two alternative ways, as illustrated in (8).

(8a) à=gwēŋ ūim (n=āgōōct).
D=carve wood ([PREP=adze])
‘He is shaping the wood (with an adze).’

(8b) à=gwēŋ āgōōct (nē ūim kāw).
D=carve:CF adze ([PREP [wood back:ABS]])
‘He is using an adze (on the wood).’

In (8a) the simple verb *gwēŋ* ‘carve’ has the patient-object *ūim* ‘wood’, which is optionally followed by the prepositional phrase *n-āgōōct* ‘with an adze’ as an instrumental adverbial. In (8b), conversely, the centrifugal verb *gwēŋ* has the instrument *āgōōct* ‘adze’ as its object, which is optionally followed by the patient in the form of the prepositional phrase *nē ūim kāw* ‘on the wood’ as a goal adverbial. Thus, (8) exhibits alternative mappings of participants onto syntactic roles.

(9) is a similar example of alternative mappings. In (9a), with the simple verb *jūp* ‘hit’, the patient-object *jō* ‘dog’ co-occurs with the instrumental adverbial *nē lēc* ‘with a stick’. In (9b), where the verb *jūup* is centrifugal, the instrument-object *lēc* ‘stick’ co-occurs with the goal adverbial *nē jō kāw* ‘at/from/to the back of the dog’.

(9a) à=jūp jō nē lēc.
D=hit dog:ABS [PREP stick:ABS]
‘He is hitting the dog with a stick.’

9 Round brackets in an example enclose an optional constituent. The corresponding constituent in the interlinear translation and in the English translation is also enclosed in round brackets.
Examples (10)-(11) further exemplify the alternative mappings of an instrument as an adverbial of a simple verb and as an object of a directional verb.

(10a) mëc ə=ćé láj tɔɔr nè tɔŋ.  
‘The man has speared an animal with a spear.’

(10b) mëc ə=ćé tɔŋ tɔar.  
man:ABS D=PF spear:ABS spear:CF:NF  
‘The man has thrown a spear (thither).’

(10c) mëc ə=ćé tɔŋ tɔar.  
man:ABS D=PF spear:ABS spear:CP:NF  
‘The man has thrown a spear (hither).’

(11a) bɔk dît (è doo)t.  
throw:2SG bird:ABS ([PREP clod])  
‘Throw at the bird (with a clod)!’

(11b) ə=bɔok doo)t.  
D=throw:CF clod  
‘He is throwing a clod.’

The root mwɔɔc ‘give’ follows the same pattern, as seen in (12).

(12a) mwɔɔc ə pjeeew rɔw.  
give:2SG [PREP [water:PL:CS2 two:ABS]]  
‘Give him a little water!’

(12b) mëc ə=mwɔɔc tɔŋ tɔŋ ə=ţiik.  
man:ABS D=give:CF meat ([LOC woman])  
‘The man is giving meat (to the woman).’

The simple divalent verb mwɔɔc ‘you give’ in (12a) takes the recipient as object, here occurring as a third person singular covert pronoun. The adverbial ə pjeeew rɔw ‘with a little water’ in (12a) refers to the thing given. It is an optional constituent and may be conceived of as an instrument. In (12b) the thing given, ə=ţiik ‘meat’, occurs as the object of the centrifugal verb mwɔɔc, while the recipient is here encoded as an optional goal adverbial, the prepositional phrase tɔŋ ə=ţiik ‘with/from/to the woman’.

However, directional verbs that can take an instrument as object do not necessarily do so. Instead they may have a patient-object like the corresponding simple verbs. An example of this is seen in (13). In (13a) the simple verb kɔɔl ‘fan’ has the patient-object mëgt ‘child’, and in (13b) the first person singular centrifugal verb form kató ‘I fan’ has the instrument-object jāar ‘leaf’, which occurs in topic position. In (13c), however, the inflectionally unmarked centrifugal verb form kēl has the object láj ‘animal’, which is not an instrument.

(13a) ə=kɔɔl mëgt.  
D=fan child  
‘He is fanning the child.’
(13b)  jąar  à=káal.
leaf:ABS  D=fan:CF:1SG
‘I am fanning (with) a leaf.’

(13c)  nąraŋ  à=kèel  láj  qiiir.
crocodile:ABS  D=fan:CF  animal:ABS  river:LOC
‘The crocodile is fanning an animal into the river (i.e., with its tail).’

In (13c) there is an explicit goal adverbial, qiiir ‘in/from/to the river’, but a goal may also be implicit when an instrument-implying centrifugal verb takes the patient as object. This is illustrated in (14)-(15). In (14a) the simple verb mòc ‘shoot’ has the patient-object láj ‘animal’, and in (14b) the centrifugal verb mòoc has the instrument dąar ‘gun’ as object. But in (14c) the centrifugal verb has the patient-object láj, and here it is understood that the animal is moved to some place or person. The sentences in (15) are parallel to those in (14).

(14a)  à=mòc  láj.
D=shoot  animal:ABS
‘He is shooting an animal.’

(14b)  à=mòoc  dąar.
D=shoot:CF  gun
‘He is firing a gun.’

(14c)  à=mòoc  láj.
D=shoot:CF  animal:ABS
‘He is shooting an animal for somebody.’

(15a)  à=ŋóot  ṟiŋŋ.
D=cut  meat
‘He is cutting meat.’

(15b)  à=ŋóot  təŋ.
D=cut:CF  spear:ABS
‘He is cutting a spear into something.’

(15c)  à=ŋóot  ṟiŋŋ.
D=cut:CF  meat
‘He is cutting meat for somebody.’

It might be suggested that the instrumental use of centrifugal verbs represents a separate derivational category, which is homonymous with the centrifugal, and which was originally phonologically distinct from the latter. However, the instrumental use is not restricted to the centrifugal, but is also found with the centripetal, as seen in (7c) and (10c) above, and here the verb definitely expresses motion towards the deictic centre. Hence, the instrumental meaning is better analyzed as resulting from choosing an instrument, as what is moved towards an explicit or implicit goal.

Among the other Western Nilotic languages, instrumental derivation seems only to have been attested in Shilluk. Tucker (1955: 454-458) presents systematic examples of instrumental verbs in this language, and Gilley (1992: 75) gives a couple of examples. Phonologically, instrumental verbs in Shilluk are characterized by what Tucker (1955: 424) calls breathy vowels (as opposed to hard vowels) in the root, and what Gilley (1992: 28) calls vowels with expanded pharynx (as opposed to vowels with non-expanded pharynx). Such
vowels systematically correspond to breathy vowels in Dinka. Hence, if there were an instrumental derivational category in Dinka that goes back to Proto-Western Nilotic, one would expect it to be characterized by breathy voice quality. But this is not the case with instrumentally used centrifugal verbs. Such verbs, and centrifugal verbs in general, have the same voice quality as the corresponding simple verbs, whether that voice quality is creaky or breathy, cf. Section 2.2 above.

4.2 Verbs of applying a substance to a patient

Another semantic class of transitive verbal roots that exhibit argument alternation consists of verbs denoting that a substance is applied to a patient. Examples of such roots are jēw ‘plaster’, tēc ‘anoint’, jōr ‘water’, and pōt ‘paint’. They behave like verbs denoting that a patient is affected by means of an instrument, and the substance referred to might also be conceived of as a kind of instrument.

In (16)-(18) the simple verbs in the (a)-sentences take the patient as object, while the centrifugal verbs in the (b)-sentences take the substance as object, while taking as a goal adverbial what would be a patient-object in the (a)-sentences.

(16a)  a=jōr dōm.
D=water field:ABS
‘He is watering the field.’

(16b)  a=jōor piw dōm-jc.
D=water:CF water:PL:ABS field-ALL
‘He is watering in the field.’

(17a)  a=pōt ē gwūop.
D=water:CF water:PL:ABS field-ALL
‘He is painting his body.’

(17b)  a=pōt ērōop ē kē gūup.
‘They are painting their bodies with cowdung ash.’

(18a)  dijar  āa=tēc mwēc njāan.
woman:PL D:PL=anoint bull (pair.of.)testicle(s)
‘Women are anointing the bull’s testicles.’

(18b)  a=tēc mōok ēe gwūop.
D=anoint:CF oil [PREP [3SG:ABS body]]
‘He is applying oil on his body.’

The sentences in (19) show two alternative ways of mapping both the patient and the substance onto syntactic roles.

(19a)  a=jēw pām (nē tījēp).
D=plaster wall:ABS ([PREP mud])
‘He is plastering the wall (with mud).’

(19b)  a=jēew tījēp (nē pām kōw).
D=plaster:CF mud ([PREP [wall:ABS back:ABS]])
‘He is plastering mud (onto the wall).’
In (19a) the simple verb \( \text{jīw} \) ‘plaster’ combines with the patient-object \( \text{phān} \) ‘wall’ and the optional instrumental adverbial \( \text{nē tījāp} \) ‘with mud’. In (19b), conversely, the centrifugal verb \( \text{jīw} \) takes the substance \( \text{tījāp} \) ‘mud’ as object, while the patient-object of (19a) is turned into an optional goal adverbial.

### 4.3 Verbs of removing a substance from a patient

A third semantic class of transitive verbal roots that exhibit argument alternation consists of verbs denoting that a substance is removed from, rather than applied to, a patient. Such roots include, for instance, \( \text{jā:k} \) ‘wash’, \( \text{jā:c} \) ‘wring’ and \( \text{tē:n} \) ‘dust’. The difference between selecting the patient and the substance as object is illustrated in (20)-(22).

(20a) \( \text{a}=\text{jā:k} \) \( \text{ā:laːt} \).
\( \text{D=wash} \) \( \text{cloth} \)
‘He is washing a cloth.’

(20b) \( \text{a}=\text{jā:k} \) \( \text{ā:laːt} \).
\( \text{D=wash} \) \( \text{dirt} \)
‘I am washing the dirt away.’

(21a) \( \text{a}=\text{nāːc} \) \( \text{ā:laːt} \).
\( \text{D=wrink} \) \( \text{cloth} \)
‘He is wrinkling a cloth.’

(21b) \( \text{a}=\text{nāːc} \) \( \text{ā:laːt} \).
\( \text{D=wrink} \) \( \text{water} \) \( \text{pl} \) \( \text{abs} \)
‘He is squeezing water out.’

(22a) \( \text{cːol} \) \( \text{a}=\text{tē:n} \) \( \text{bːook} \).
\( \text{Col} \) \( \text{D=hide} \)
‘Col is dusting the hide.’

(22b) \( \text{čːik} \) \( \text{a}=\text{tē:n} \) \( \text{tːur} \).
\( \text{woman} \) \( \text{D=dust} \) \( \text{dust} \)
‘The woman is dusting the dust.’

(22c) \( \text{čːik} \) \( \text{a}=\text{tē:n} \) \( \text{tːur} \).
\( \text{woman} \) \( \text{D=dust} \) \( \text{dust} \)
‘The woman is dusting the dust this way.’

In (20a) the simple verb \( \text{jā:k} \) ‘wash’ takes \( \text{ā:laːt} \) ‘cloth’ as object, while the centrifugal verb \( \text{jā:k} \) ‘wash’ in (20b) takes the substance \( \text{jā:k} \) ‘dirt’ as object and the allative adverb \( \text{wē:j} \) as a goal adverbial. In a similar way, \( \text{jīw} \) ‘water’ replaces \( \text{ā:laːt} \) ‘cloth’ as object when the simple verb \( \text{jā:c} \) ‘wring’ in (21a) is replaced by the centrifugal verb \( \text{jā:c} \) in (21b). And in (22a) the simple verb \( \text{tē:n} \) ‘dust’ has \( \text{bːook} \) ‘hide’ as object, while the directional verbs \( \text{tē:n} \) and \( \text{tē:n} \) have \( \text{tːur} \) ‘dust’ as object in (22b-c). With directional verbs of this class, the object cannot be conceived of as an instrument.

A figurative use of the same construction is seen in (23). In (23a) the simple verb \( \text{lːam} \) ‘curse’ has the cursee \( \text{čːik} \) ‘woman’ as object, while the centrifugal verb \( \text{lːam} \) has the “substance” \( \text{kːɛ rːaːc} \) ‘bad thing’ as object, \( \text{wē:j} \) ‘away’ as a goal adverbial, and \( \text{ɛ kːɛ gːup} \) ‘at/from/to people’s bodies’ as a source adverbial.
4.4 Verbs with an object of effect

Another possibly relevant semantic class is constituted by transitive roots which imply that their object is something created by the action, an object of effect. Thus, directional forms of gót ‘write’ and véc ‘dig’ have been attested as taking as their object a participant that is different from the object of effect of the corresponding simple forms. In (24a) the simple verb gót ‘write’ has the object of effect qóóor ‘letter’, whereas in (24b) the centrifugal verb gót has the theme-object ṭọọ ‘hippos’ in combination with the goal adverbial ḃjuk ｊc ‘in/from/to a book’.

(24a) báñ ā=gót qóóor.
Chief:ABS D=write letter:ABS
‘The chief is writing a letter.’

(24b) báñ ā=gót ṭọọ ḃjuk ｊc.
‘The chief is registering hippos in a book.’

In (25a), similarly, the simple verb véc ‘dig’ has ḃjít ‘well’ as an object of effect, while the centrifugal verb véc in (25b) has ċat ‘platform’ as a theme-object. In (25b) there is no explicit goal, but the goal is understood to be holes in the ground. In (25c) the corresponding centripetal verb véc has the theme-object ḋac ‘pegs’, and here there is an explicit goal, namely the allative and centripetal adverb bēj ‘out (towards the deictic centre)’, as well as a source, namely the place adverbial ḃ ḋal ｊiic ‘in/from/to holes’.

(25a) mêc ā=véc ìjít.
Man:ABS D=dig well
‘The man is digging a well.’

(25b) mêc ā=véc ċat.
Man: ABS D=dig:CF platform: ABS
‘The man is digging platform poles (into the ground).’

(25c) kê véc ḋac bēj ḃ ḋal ｊiic.
‘and he dug the pegs out from the holes.’ (t.)

10 The absolutive case form of kê ‘people’ exceptionally varies between being high-toned and low-toned, while its oblique case form is invariably low-toned.
Here, as with verbs of removing a substance, the theme-object of the directional verbs is not equivalent to an instrument.

5. Verbs of giving or transaction

With some verbs of giving or transaction, a shift from non-directional to centrifugal is accompanied by a change in the meaning of the root. Thus, while the simple verb implies that the object is moved to the subject, the centrifugal verb implies that the object is moved away from the subject. Examples of verbal roots with this property are *gām* ‘receive, accept’, *wāqr* ‘get in exchange’, and *ugār* ‘buy’.

As exemplified in (26), the simple verb *gām* means ‘receive’ or ‘accept’ (26a), whereas its centrifugal counterpart *gēem* means ‘give’ (26b).

(26a) móc ā=gām wēŋ.
  man:ABS D=receive cow:ABS
  ‘The man is receiving / accepting a cow.’

(26b) móc ā=gēem wēŋ.
  man:ABS D=receive:CF cow:ABS
  ‘The man is giving a cow (to somebody).’

Similarly, the simple verb *wāqr*, as in (27a), means ‘get in exchange’, while the centrifugal verb *wēeer* means ‘give in exchange’, as in (27b).

(27a) móc ā=wāqr wēŋ nē rāp.
  ‘The man is exchanging sorghum for a cow.’

(27b) móc ā=wēeer wēŋ nē rāp.
  ‘The man is exchanging a cow for sorghum.’

(27c) móc ā=wēeer wēŋ nē rāp.
  (i) ‘The man is exchanging a cow for sorghum.’ or
  (ii) ‘The man is exchanging sorghum for a cow.’

The thing with which something is exchanged may be expressed as a prepositional phrase with the multipurpose preposition *(n)*ē. This is the case whether the verb is simple (27a), centrifugal (27b) or centripetal (27c). Note also that (27c) has two readings, being ambiguous with respect to the mapping of the two exchanged things onto syntactic roles. Thus, the object *wēy* ‘cow’ of the centripetal verb in (27c) may refer to both (i) what is removed from the subject (towards the speaker) and (ii) what is received by the subject (towards the speaker). This ambiguity seems to be related to the ambiguity of place adverbials that do not distinguish between the allative case and the essive/ablative case. Such place adverbials may have both a goal reading and a source reading when combining with a centripetal verb, as seen in example (1c) above.

Again, while the simple verb *ugār* means ‘buy’, as in (28a), its centrifugal counterpart *ugēeec* in (28b) may be translated as ‘sell’. However, the basic meaning of the centrifugal verb seems to be less specific. In (29), where the object is ‘the money which you will give me’, the verb does not mean ‘sell’, but may be translated as ‘spend’ or ‘buy with’. Hence, the
basic meaning of the centrifugal verb seems to be that the object is moved away from the subject during this type of transaction.

(28a) möc  ağrı=ŋgəc ʃɔk.
man:ABS  D=buy  goat
‘The man is buying a goat.’

(28b) möc  ağrı=ŋgəceC ʃɔk.
man:ABS  D=buy:CF  goat
‘The man is selling a goat.’

(29) wēew  bā  jjeék  á
[money:PL:CS1  [FUT:2SG  give:APPL:NF  1SG:ABS]]
‘The money which you will give me,’

áa=bā  ʊə̞aad  ɛ  wēŋ.
D:PL=FUT:1SG  buy:CF:NF  [PREP  cow:ABS]
‘I will spend on a cow.’  ‘I will buy a cow with.’

6. Applicative

There is an alternative to using a directional verb with a goal adverbial, namely to use an applicative verb with the goal as object. This is illustrated in the following subsections.

The applicative derivation is applicable to both intransitive and transitive bases. It makes an intransitive verb transitive, and a transitive verb ditransitive. The two objects of a ditransitive verb occupy different slots in the clause schema, see Table 1 above. One of the objects, which I call “primary object”, occurs before the slot of non-finite verbs, filling the same slot as the single object of a (mono)transitive verb. The other object, which I call “secondary object”, occurs after the slot of non-finite verbs, immediately before the slot of adverbials.

In addition to promoting a goal adverbial to object status, the applicative also has another major function, namely that of making a beneficiary become an object. This is illustrated with the intransitive root ʃ Gow ‘die’ in (30) and with the transitive root kwēen ‘count’ in (31). The verbs are simple in the (a)-clauses and applicative in the (b)-clauses. The applicative form ʃ Gow ‘die for’ in (30b) has the object bāaj ‘home’, and the applicative form kwēen ‘count for’ in (31b) adds an extra object, möc ‘man’, to the single object ʊə̞sk ‘cows’ of (31a).

(30a) möc  aç=ɛ C  ʃ Gow.
man:ABS  D=PF  die:NF
‘The man has died.’

(30b) möc  aç=ɛ bāaj  ʃ Gow.
man:ABS  D=PF  home:ABS  die:APPL:NF
‘The man has died for the sake of the country.’

(31a) m̃r̃j̃al  aç=kwēen  ʊə̞sk.
Marial:ABS  D=count  cow:PL:ABS
‘Marial is counting cows.’

(31b) m̃r̃j̃al  aç=kwēen  möc  ʊə̞sk.
‘Marial is counting cows for the man.’
The following two subsections deal with the goal-applicative with intransitive and transitive bases, respectively.

6.1 Goal-applicative with intransitive base

The applicative motion verb *múol* ‘crawl to/for’ in (32c) has an intransitive root, and the absolutive noun *pún* ‘ground’ is its object. (32c) is an alternative to both the centrifugal (32a) and the centripetal (32b), where *pún*, as a noun in the allative case (homonymous with the absolutive case), is a goal adverbial. The corresponding intransitive verb *múol* ‘crawl’ in (32a) is inherently ambiguous between non-directional and centrifugal meaning, but in this sentence the meaning is unambiguously centrifugal because the verb is combined with a specifically allative adverbial. The syntactic structure of (32c) is identical to that of (32d), where *pún* is the object of the simple transitive verb *wèec* ‘sweep’.

(32a) mèt à=múol pún.
child D=crawl(CF) ground:ALL
‘The child is crawling down.’

(32b) mèt à=múol pún.
child D=crawl:CP ground:ALL
‘The child is crawling down (hither).’

(32c) mèt à=múol pún.
child D=crawl:APPL ground:ABS
‘The child is crawling down.’

(32d) ūik à=wèec pún.
woman D=sweep ground:ABS
‘The woman is sweeping the ground.’

That *pún* ‘(to) the ground’ is an adverbial in (32a-b), but an object in (32c-d), is revealed by its position in clauses with an auxiliary verb. This is illustrated in (33), whose clauses are the perfect tense/aspect counterparts of those in (32). Thus, in (33a-b) *pún* occurs after the non-finite main verb, in the adverbial slot, but in (33c-d) it occurs before the non-finite main verb, in the primary object slot.

(33a) mèt à=cè múol pún.
child D=PF crawl(CF):NF ground:ALL
‘The child has crawled down.’

(33b) mèt à=cè múol pún.
child D=PF crawl:CP:NF ground:ALL
‘The child has crawled down (hither).’

(33c) mèt à=cè pún mwúol.
child D=PF ground:ABS crawl:APPL:NF
d:ALL
‘The child has crawled down.’

---

11 This inherent ambiguity is indicated by the symbol ‘*(CF)*’ in the interlinear morphemic translation.

12 The essive/ablative case form of *pún* ‘ground’ is *pùn*. 
The use of the applicative for promoting a goal to object status is not restricted to motion verbs. This fact is illustrated in (34) with the intransitive root *pêel* ‘defecate’.

(34a) mét  à=pêel.
child D=defecate
‘The child is defecating.’

(34b) mét  à=pêet  ãwpŏor  ĵc.
child D=defecate:APPL  gourd  stomach:ABS
‘The child is defecating into a gourd.’

(34c) mét  à=cãapwŏor  pêet  ĵc.
child D=PF:gourd13  defecate:APPL:NF  stomach:ABS
‘The child has defecated into a gourd.’

(34d) gqo  g'qun=d-ţen  ě màcër  lŏoom,
SEQ:3SG  [[gourd.type:CS1= SG-3SG:CS1]  [of  tobacco]]  take:NF
‘Then he took his tobacco gourd’

kù  pêet  ĵc.
‘and defecate:APPL:3SG  stomach:ABS
‘and defecated into it.’ (t.)

In (34a) the root occurs as a simple intransitive verb, and in (34b) the applicative verb *pêet* occurs with the goal-object *ãwpŏor* ‘gourd’. The body part noun *ţc* ‘stomach’ in (34b) is the possessee in an external possession construction in which *ãwpŏor* is the external possessor.14 (34c) shows that *ãwpŏor* occurs before the slot of the non-finite applicative main verb *pêet* and thus is an object rather than an adverbial. In (34d), where the applicative verb *pêet* in the second clause is inflected for subject, the object is a covert third person singular pronoun referring to ‘his tobacco gourd’ in the first clause.

6.2 Goal-applicative with transitive base

The use of the applicative based on a transitive verb is illustrated in (35). The applicative counterpart of the simple transitive verb *tŏoc* ‘send’ in (35a) is *tůuc*, as seen in (35d). This verb is ditransitive, and in (35d) the goal * hồn* ‘chief’ is its secondary object, while *mêt* ‘child’ is its primary object.15 Thus, (35d) is an alternative to both (35b) with the centrifugal verb *tôoc* and (35c) with the centripetal verb *tůuc*, but it lacks the deictic component of their verbs.

(35a)  à=tôoc  mêt.
D=send  child
‘He is sending a child.’

13 [cãapwŏor] is a contraction of ‘cf. *ãwpŏor*.’
14 The same use of a body part noun is found in (18a) above.
15 The order of the two objects could be reversed; so as an isolated sentence, (35d) could also mean ‘He is sending the chief to the child’.
The applicative construction can be ambiguous in that the additional object may be either a goal or a beneficiary, as in (36b), whose applicative verb ḏgel is based on the simple verb ḏel ‘pull’ in (36a).

The transitive root mw2oc ‘give’ behaves differently with respect to semantic roles. The simple verb with this divalent root takes the recipient as its object, as seen in (37a (= (12b)) with ḏiik ‘woman’ as the object. The extra object added by the applicative does not have the semantic role of goal or beneficiary, but refers to the gift, as in (37d), where ḏiŋ ‘meat’ is the extra object. Nevertheless, (37d) is an alternative to (37b) and (37c), in which the verb is directional, takes the gift as object, and optionally includes the recipient as a goal adverbial, cf. Section 4.1 above.

Another root for ‘give’ has only been attested in an applicative stem ḏiik, and apparently does not exist as a simple stem. Its use is illustrated in (38).
(38) àìji:k mòc wèŋ.
D=give:APPL man:ABS cow:ABS
‘He is giving the man a cow.’

7. Conclusion

In Dinka, the object of a transitive directional (centrifugal or centripetal) verb refers to something that is moved towards an explicit or implicit goal. The use of such a verb, as opposed to a simple and non-directional verb with the same root, may be accompanied by a change in the participant encoded as object. With many verbs, a patient-object is replaced by an object which plays the semantic role of “instrument” (in a broad sense) in the event denoted by the verb. With some verbs, however, the promoted object cannot be conceived of as an instrument, for instance verbs of removing a substance. Moreover, with some verbs of giving or transaction, the centrifugal differs from the simple verb in that it denotes or implies that the entity encoded as object moves from the subject instead of to the subject.

Another type of argument alternation that involves directionality is found in the use of applicative verbs. Thus, what is manifested as a goal adverbial in a clause with a centrifugal or centripetal intransitive or transitive verb is encoded as the single or as an additional object of the corresponding applicative verb. Unlike directional verbs, applicative verbs have no deictic component.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tr>
<td>ABS</td>
<td>absolutive</td>
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<td>ALL</td>
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<tr>
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<td>applicative</td>
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<td>centrifugal</td>
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<td>CP</td>
<td>centripetal</td>
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<td>second construct state</td>
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<td>PREP</td>
<td>multipurpose preposition</td>
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<tr>
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<td>singular</td>
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<tr>
<td>1SG</td>
<td>first person singular</td>
</tr>
<tr>
<td>3PL</td>
<td>third person plural</td>
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</tbody>
</table>
References


Andersen, Torben. submitted. Spatial roles and verbal directionality in Dinka.


On the typology of directional verbs in Bantu A (Barombi, Isubu, Mokpe, and Oroko)

Gratien G. ATINDOGBÉ

Abstract

In this paper, I undertake a cross-linguistic study of the grammatical elements of directional motion in four Bantu languages of Zone A: Barombi, Isubu, Mokpe and Oroko. I examine the semantic and syntactic features of lexical items and utterances expressing physical motion, extension, orientation and end location, after Jackendoff's (1983) four subtypes of directional motion, and Talmy's (2000) dichotomy of verb-framing system and satellite-framing system.

In the four languages investigated the expression of directional orientation is done either with a motion verb which embeds motion and direction or a motion verb followed by a locative preposition expressing direction. My findings depart slightly from Schaefer and Gaines (1997) and Gaines (2001) whose preliminary conclusions suggest that the African languages are of the verb-frame type. My study shows that it is difficult to support that contention as one is faced with a mixed system of conflation and splitting. Consequently, it is obvious that Bantu languages constitute a genuine testing ground for Jackendoff (1983) and Talmy's (2000) theory of packaging.

1. Introduction

Directionality, directed motion or directional motion, i.e. the property of being directional or maintaining a direction, represents a significant grammatical category within human languages. Comparative studies of the expression of directionality in Indo-European languages looked at cross-linguistic variation in the expressions of directed motion (Thomas 2001, 2003, Son 2006, 2007), the systematic investigation of directional motion types (Talmy 1975, 1985, 2000, Jackendoff 1983), how direction is represented in language and how direction is represented in spatial terms for the purpose of language (Van der Zee and Slack 2003), etc. In African linguistics, studies on the lexicalised patterns used to express directionality events are scarce. However, Schaefer (1985), Schaefer and Gaines (1997), Gaines, Mbaye and Schaefer (2000), and Gaines (2001) looked at both cross-linguistic and language-specific characterisations of physical motion events in African languages.

In this paper, the main issue concerns the identification and comparative analysis of the constituents that encode direction in Bantu languages of Zone A. In other words, which linguistic constituents encode direction and how do they perform it in Barombi (A41), Isubu (A23), Mokpe (A22) and Oroko (A12) (henceforth BIMO after the initials of the four languages). For the sake of consistency and uniformity in the comparison, I used Jackendoff's (1983) four subtypes of directional motion to examine the semantic and syntactic features of lexical items and utterances expressing physical motion, extension, orientation and end location, and I examined how the expression of directionality
in these languages fit into Talmy’s (1985, 1991 and 2000) theory of packaging the information into two compartments: verb-framing system and satellite-framing system. The influential papers by Schaefer and Gaines (1997), and Gaines (2001) contribute a great deal to shape this study. My findings differ from the received idea existing in the literature that “African languages tend to employ the V-language strategy of conflating Motion and Direction for the expression of simple motion events” (Gaines 2001:1) following a preliminary study by Schaefer and Gaines’ (1997). As for the complex motion events, my study equally differs from Gaines’ (2001:1) conclusion that Motion + Manner + Direction are commonly exclusively expressed in a separate subordinate clause.

The paper proceeds as follows: section 2 suggests a preamble including a word on the Bantu languages of Zone A, a classification and a brief overview of the syntactic structure of BIMO, as well as a brief presentation of locative constructions in BIMO. Section 3 presents and analyses the data, while section 4 summarised the findings.

2. Preamble

2.1 Zone A languages

The approximately 680 Narrow Bantu languages (Mann, Dalby et al. 1987) are conventionally divided up into geographic zones first proposed by Malcolm Guthrie (1967-1971). The more or less final version of this referential classification suggests a division of the area into 15 zones of roughly equal size, labelled A, B, C, D, E, F, G, H, K, L, M, N, P, R, S, to which Belgian scholars later added a J, by combining bits of D and E. Each zone in turn consists of up to nine groups, numbered 10, 20, 30, to 90, with each group also having up to nine members, mostly very similar to each other (Nurse and Tucker 2002). Zone A (or Northwest Bantu) languages are all Bantu languages (stricto sensus) spoken in Cameroon, Equatorial Guinea and the Northern part of Gabon (Guthrie 1971, Maho 2003). An excerpt (Zone A only) of the updated and expanded version of Malcolm Guthrie’s (1971) classification of the Bantu languages is proposed in Maho (2003 and 2009):

**Zone A1**
- A10 Lundu-Balong: Oroko, Nlong (Balong), Bonkeng, Fo’ (Bafo), Manenguba (Mbo), Nkongho
- A20 Duala: Duala, Mboko (Bomboko, Wumboko), Su (Isuwu), Bubia (Bobe), Kpwe (Mokpwe, Bakweri), Kole (Bakole), Limba (Malimba)
- A30 Bube-Benga: Bube, Batanga, Yasa, Kombe, Benga
- A40 Basaa: Basaa, Rombi-Bankon, Kogo (Bakoko)
- A50 Bafia: Hijuk, Fa’ (Lefa), Kaaalong (Dimbong), Kpa (Bafia), Ngayaba (Tibea)
- A70 Beti (See; Yaunde, Fang, etc.)
- A80 Makaa-Njem languages (See)
- A90 Kako: Kwakum, Pol, Pomo, Kweso, Kako

The languages under study fall under 3 subgroups: A10, A20 and A40. The choice of these languages resides solely on the availability of language consultants.

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1 Guthrie’s A60 and part of his A40 have been moved to the Bantoid Mbam languages.
2.2 Classification, speakers and location\(^2\) of Barombi, Isubu, Mokpe and Oroko

All these languages are spoken in the South West Region of Cameroon. Barombi (A41), 3,000 speakers, is located in the north of Mount Cameroon around Lake Barombi-Koto and west of Kumba around Lake Barombi-Mbo; and also in Ndian Division, northeast of Ekondo-Titi. Isubu (A23), 800 speakers, is precisely spoken in Fako Division, Tiko Subdivision, around Bimbia estuary east of Limbe and west of Douala. Mokpe (A22), 32,200 speakers, is used in a large part of the Fako Division, Muyuka, Tiko, Buea, and Limbe subdivisions. Finally, Oroko (A12), 105,985 speakers, is spoken in Meme Division, Kumba Subdivision, west, north, and south of Kumba; Ndian Division, eastern Ekondo-Titi Subdivision. These languages are highly influenced by Cameroon Pidgin English, the dominant lingua franca spoken in the area.

2.3 Brief overview of the syntactic structures of Barombi, Isubu, Mokpe and Oroko

The canonical or basic word order in most Bantu languages is SVO. The examples in (1) from Makonde and Swahili illustrate the point.

(1a) vá vá-ana vaalé ntandaasa
CONN- 2-children 2.eat.OPT 9.cassava.porridge
‘the children should eat cassava porridge’ (Makonde; Kraal 2005: 334)

(1b) a- na- penda- watoto
3sg PRS- love- 2.children
‘he loves children’ (Swahili; Harries 1968: 7)

Apart from Barombi which exhibits a kind of ‘SSVO’ structure (Atindogbé 2011), i.e. a subject pronoun preceding the subject marker (2), the other three languages have SVO word order (3).

(2a) mè m àá djé ñ-lòlò
1sg 1sg PAST eat 3-banana
‘I ate a banana’ Barombi

(2b) wè w àá djé ñ-lòlò
2sg 2sg PAST eat 3-banana
‘you ate a banana’

(2c) bës tá àá djé ñ-lòlò
1pl 3pl PAST eat 3-banana
‘we ate a banana’

(3a) nà mà gbá nàmà gbàbá
1sg PAST kill 9.meat 9.long
‘I killed a snake’ Isubu

(3b) à mà lá mbõ
3sg PAST eat 9.banana
‘he ate a banana’ Mokpe

\(^2\) Information taken from Lewis (2009).
As we can see in (2), there is a subject pronoun (SP) preceding the subject marker (SM) in Barombi. This is systematic in all the tenses except the present tense (cf. Atindogbé, 2011).

2.4 A word on Locatives in BIMO

In Bimo, locative constructions/phrases are constructed by the addition of a particle comparable to a preposition. This “all purpose” particle or preposition ú (Barombi), ó (Isubu and Mokpe), ó (Oroko) includes the notion ‘in, at, to, on’ as illustrated by the locative phrases in (4). I shall call that particle a locative preposition (LP). Note that /ó/ may be realised as [w-] when preceding a vowel-initial root.

(4) Barombi Isubu Mokpe Oroko Gloss

| ú mbôk | ó mbôkà | ó mbôwà | ó mbôkà | in the village |
| ú djôn | ó liwô | wêliwà | ô rîkêti | at the market |
| ú kîfêwû | ó môkî | ó mûzô | ô irîsà | to the river |
| ú ndʒêkë | ó ndʒêjà | ó ndʒêjà | ó ndʒêjà | on the road |

Even when locative sentences use “prepositions” or place adverbs which express more specific locations, the LP still surfaces:

(5) Barombi Isubu Mokpe Oroko Gloss

| ú têtë | ôtêtë nà | ôtênà ndåwù | ôtê ndåbò | ‘inside the house’ |
| ndåwù | ndåwô | | ndåbô | |
| ú bësù ù | ó wósò wó | ó wôzrô wó | ô ëósó ëà | ‘in front of the house’ |
| ndåwù | ndåwô | ndåwù | ndåbô | |
| ú djàà ù | ó ëwúkôkà lá | ó mbûzrá | ó rótà ndåbò | ‘outside the house’ |
| ndåwù | ndåwô | ndåwù | | |
| ú mbis ù | ó mbûsà | ó mbûzrá | ôtê mbôkà | ‘behind the village’ |
| mbôk | mbôkà | mbówà | | |

Thus, a sentence stating the location of a person or thing uses a preposition followed directly by the location. This is illustrated in (6) where ‘village’ is the predicate.

(6) më ndá fôm ù mbôk ‘I am not from the village’ Barombi
nà ëlël ó mbôkà ‘I am in the village’ Isuba
nà ëlël ó mbôwà ‘I am in the village’ Mokpe
mbëërí ó mbôkà ‘I am in the village’ Oroko

Worth noting is the evidence that the verb does not combine/concord with any specific affix and the locative preposition remains morphologically independent from the verb root.

(7) fëlëdá: â âá fá mâ-tjë mâ ù ndêk Barombi
3sg PAST put 6-egg 6.DET LP 9.calabash
‘he put the eggs in the calabash’
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(8) něngē: à mà něng-ć mè-kējí ó kōćhà
3sg PAST put-FV 6-egg LP 9.calabash
Isubu

‘he put the eggs in the calabash’

(9) bátá: à mà bát-á è-bùmà ó mò-zrò
3sg PAST harvest-FV 7-fruit LP 3-river
Mokpe

‘he harvested a fruit at the river’

(10) áká: nà kàk-à ó mbókà
1sg go.PRS.PROG-FV LP 9.village
Oroko

‘I am going to the village’

This brief overview of locative constructions in BIMO paves the ways for a better understanding of our analysis of directional particles/prepositions.
Let us now turn to the expression of directionality in BIMO.

3. Expressing directionality in Bantu A

Talmy (1985: 61) termed the basic components of a motion event as the Figure, i.e. the entity that is in motion, the Ground, i.e. the entity or entities that the Figure is moving in relation to, the Path, i.e. the course followed or direction (and trajectory) of the Figure (often deduced from the Ground which is specified), and the Motion, i.e. the actual predication of a motion act. Physical motion depicts the direction of physical movement of one referent relative to another (e.g. into in John ran into the house). His typological studies have demonstrated that languages package these fundamental elements in one of two ways: either Motion and Path are conflated into a single non-decomposable verb root leading to a verb-framing system: entrer ‘enter’ (French), or each of Motion and Path are expressed by separate morphemes resulting in a satellite-framing system walk into (English). Taking African languages as their subjects, Schaefer and Gaines (1997) examined the syntax-semantic interface of lexical items/utterances of basic directional motion and manner of motion across the four language phyla of Africa. They came up with the result that basic directional motion tends to be verb-framed, as verbs like ‘enter’, ‘circle’ or ‘traverse’ conflate the semantic components Motion + Direction. Gaines (2001) confirmed these results after his investigation of ten languages from various clusters of the Bantu sub-family. My results of the investigations of directional events in BIMO (Zone A) seem to diverge from Schaefer and Gaines’ (1997), and Gaines’ (2001) findings. In order to have a more or less complete picture of the situation in BIMO, we shall examine the four subtypes of lexical items and utterances expressing directional motion proposed by Jackendoff (1983): physical motion, extension, orientation and end location. This complete analysis confirms the contention that BIMO has prepositions or particles that are polysemic and that it is not yet obvious to typify Bantu A directional verbs in terms of verb-frame or satellite-frame systems.

3.1 Physical directional motion: simple motion events in BIMO

Verbs like ‘enter, move into’, ‘exit, move out’, ‘ascend, climb, move up’, ‘descend, move down’, ‘cross, move across’, ‘encircle, move around’ are generally used in the literature (cf. Schaefer and Gaines 1997, Gaines 2001) to investigate the typology of directional verbs in African languages. An analysis of utterances containing these verbs shows that a strict distinction “verb-frame system” vs. “satellite-framing system” does not hold in
BIMO as illustrated by the set of examples in this section where the verb, in the unmarked case, demands the presence of a preposition that resembles in every respect the LP discussed above. We call this preposition the directional preposition (DP) for reasons explained below. Besides, certain motion verbs do not accept any preposition.

Most of the verbs discussed below take obligatorily the DP which is systematically placed between the verb and the location. These include lèm ‘enter’ (Barombi), júngéjá ‘enter’ (Isubu and Mokpe) and kpéjá ‘enter’ (Oroko). However, the verbs fúná ‘ascend’ (13d) and sùrùwá ‘descend’ (14d) from Oroko do not call for DP.

lèm (B), júngéjá (I), kpéjá (M), kpéjá (O) ‘enter’

(11a) lèm: ǹ-lèkà mú ǹw-á lèm ú pákà/tùŋ Barombi
3-boy 3.DET 3.CRDPAST go DP 9.room
‘the boy entered the room’

(11b) júngéjá: ǹw-áná à m-ǹgéj-á ó ǹkà Isubu
1-boy 1.CRD PAST-go-FV DP 9.room
‘the boy entered the room’

(11c) kpéjá: è-mbèzrä è mà kpéj-á ó tùù Mokpe
7.DET-9.boy 7.CRD PAST go-FV DP 9.room
‘the boy entered the room’

(11d) kpéjá: mò-rèkà mò nò kpéj-á ó ritòngó Oroko
3-boy 3.CRD PAST go-FV DP 9.room
‘the boy entered the room’

Note that in Isubu, the stacking of two verbs can be used to express simple motion, where the second verb is followed by DP:

(12) kündé + ǹw-áná à mà künd-ì júngéj-á ó ǹkà Isubu
júngéjá: 1-boy 1. PAST walk-FV enter. DP 9.room
CRD INF-FV
‘the boy entered/moved into the room’

As for Mokpe and Oroko, an alternative verb, èndé/kündé ‘walk’ still takes the DP:

(13a) èndé: è-mbèrzrä è mà ènd-é ó tùù Mokpe
7.DET-9.boy 7.CRD PAST walk-FV DP 9.room
‘the boy entered/walked/moved into the room’

(13b) kündé: mò-rèkà mò nò künd-é ótè ritòngó Oroko
3-boy 3.CRD PAST walk-FV DP 9.room
‘the boy moved into the room’

Thus, in addition to lèm, júngéjá, kpéjá, kpéjá ‘enter’, which are generally used in the literature to investigate the typology of Motion verbs, èndé ‘walk’ (Mokpe) and kündé ‘walk’ (Oroko) also take the DP.
fájí (B), búsā (I), wúźrá (M), bůráká (O) ‘exit’

(14a) fájí:  m̲p̲a  Ø  áà  fáj-í  ú  pákà/tůŋŋ  Barombi
             Mpa  1.CRD PAST  move-FV  DP  9.room
             ‘Mpa exited/moved out of the room’

(14b) búsā:  bîlā  à  mã  bús-á  ó  þâkà  Isubu
             Bîlā  1.CRD PAST  move-FV  DP  9.room
             ‘Bîlā exited/moved out of the room’

(14c) wúźrá:  ndʒɔɔ  à  mã  wúź-á  ó  túũ  Mokpe
              Njoh  1.CRD PAST  move-FV  DP  9.room
              ‘Njoh exited/moved out of the room’

(14d) bůráká:  natówâ  à  nõ  bůr-á  ó  ritōngô  Oroko
              Njoh  1.CRD PAST  move-FV  DP  9.room
              ‘Njoh exited/moved out of the room’

In Oroko, it is possible to have an adverbal preposition (diʃûrâ ‘out’) before DP when the verb ‘walk’ is used to express the same idea of ‘exit’, ‘move out’;

(15) kèndë:  mò-řēkâ  mò  nò  kènd-ë  diʃûrâ  ó  ndâʃô  Oroko
             3-boy  3.DET  3.CRD-PAST  climb  DP  3-mountain
             ‘the boy ascended/climbed the mountain’

bêt (B), àwûwâ (I), âgbâ (M), fûmâ (O) ‘ascend’

(16a) bêt:  ñ-łèkâ  mú  ñw-á  bêt  ú  ñ-kɔkɔ̀ò  Barombi
             3-boy  3.DET  3.CRD-PAST  climb  DP  3-mountain
             ‘the boy ascended/climbed the mountain’

(16b) àwûwâ:  ñw-ànâ  à  mã  wûw-á  ó  mò-kolí  Isubu
              1-boy  1.CRD PAST  climb-FV  DP  3-mountain
              ‘the boy ascended/climbed the mountain’

(16c) âgbâ:  ê-ṃbɛ̀zɔ̀  ê  mã  âgb-á  ó  mò-li  Mokpe
             7.DET-9.boy  7.CRD PAST  climb-FV  DP  3-mountain
             ‘the boy ascended/climbed the mountain’

(16d) fûmâ:  mò-řēkâ  mó  nö  fûm-á  mò-kɔří  Oroko
             3-boy  3.CRD PAST  ascend-FV  3-mountain
             ‘the boy ascended/climbed the mountain’

sôs (B), siwâ (I), ńndô (M), sùrûwâ (O) ‘descend’

(17a) sôs:  ñ-łèkâ  mú  ñw-á  sôs  ú  ñ-kɔkɔ̀ò  Barombi
             3-boy  3.DET  3.CRD-PAST  come  DP  3-mountain
             ‘the boy descended the mountain’

(17b) siwâ:  ñw-ànâ  à  mã  siw-á  ó  mò-kolí  Isubu
             1-boy  1.CRD PAST  come-FV  DP  3-mountain
             ‘the boy descended the mountain’
(17c) ɓnɗ: è-mbèrzà è m-ɓnd-ɓ̀ ô mò-lí Mokpe
7.DET-9.boy 7.CRĐ PAST-come-FV DP 3-mountain
‘the boy descended the mountain’

(17d) sùrùwá: mò-rèkà mò nò sùrùw-á mò-kòrì Oroko
3-boy 3.CRĐ PAST descend-FV 3-mountain
‘the boy descended the mountain’

From the sets of examples above, it is obvious that in the unmarked case, simple
motion events of physical directional motion are expressed in BIMO with a verb
followed by a DP. However, fùmà ‘ascend’ and sùrùwá ‘descend’ of Oroko do not take the
DP. Furthermore, verbs like tòmbá (B), ɓkámnè (I), ɓándzà (M), tòmbá (O) ‘cross’ and
jéjá (B), jìmbɔ (I), tòngá (M), àbísè (O) ‘circle’ behave alike as illustrated in the examples
below: tòmbá (B), ɓkámnè (I), ɓándzà (M), tòmbá (O) ‘cross’

(18a) tòmbá: ñ-łèkà mû ɓw-á tòmbá ɗákà Barombi
3-boy 3.DET 3.CRĐ-PAST cross-FV 9.room
‘the boy crossed the room’

(18b) ɓkámnè: ñw-ánà à m-èkám-è ɗákà Isubù
1-boy 1.CRĐ PAST-cross-FV 9.room
‘the boy crossed the room’

(18c) ɓándzà: è-mbèrzà è mà ɓándʒ-à itùù Mokpe
7.DET-9.boy 7.CRĐ PAST cross-FV 9.room
‘the boy crossed the room’

(18d) tòmbá: mò-rèkà mò nò tòmbá ɗítòngó Oroko
3-boy 3.CRĐ PAST cross-FV 9.room
‘the boy crossed the room’

jéjá (B), jìmbɔ (I), tòngá (M), àbísè (O) ‘circle’

(19a) jéjá: ñ-łèkà mû ɓw-á jéj-à ndàwù Barombi
3-boy 3.DET 3.CRĐ-PAST circle-FV 9.house
‘the boy circled the house’

(19b) jìmbɔ: ñw-ánà à mà jìmb-ɓ̀ ndàɓò Isubù
1-boy 1.CRĐ PAST circle-FV 9.house
‘the boy circled the house’

(19c) tòngá: è-mbèrzà è mà tòng-à ndàwù Mokpe
7.DET-9.boy 7.CRĐ PAST circle-FV 9.house
‘the boy circled the house’

(19d) àbísè: mò-rèkà mò nò àbís-è ndàɓò Oroko
3-boy 3.CRĐ PAST circle-FV 9.house
‘the boy circled the house’

The first cross-linguistic generalisation one can make from the sets of data above is
that the obligatory use of the locative alongside with the verbs depends highly on the
semantics and the syntactic features of the verb. That may be the reason why some
verbs take the DP and others do not. This contention is supported by other verbs out of the series I chose for the demonstration. For example, the verbs mêsé and ândzjâ ‘leave’ in Isubu have two distinct syntactic behaviours: mêsé ndâbô and ândzjâ ó ndâbô ‘leave the house’. In other words, one takes the preposition while the other does not. This is illustrated in (20).

(20a) mêsé: nà nò mês-é ndâbô Isubu
    1sg PROG leave.PRS-FV 9.house
    ‘I am leaving the house for …’

(20b) ândzjâ: nà nò ândzj-á ó ndâbô
    1sg PROG go.PRS-FV DP 9.house
    ‘I am leaving the house’

The same holds true for Mokpe with źêm ândâ-wâ ‘leave the house’ and ândzjâ ó ndâwâ ‘leave the house’ in źêm ândâ-wâ and ândzjâ ó ndâwâ respectively, both meaning ‘the boy left the house’. Furthermore, the verb fâjî ‘leave, exit’ of Barombi demands the preposition û, as in the utterance źêlêkä mà nyât fâjî û ndâwâ ‘the boy left the house’ whereas the Oroko verb mâtû ‘leave’ does not: môrêkä mó nò mâtû ndâbô ‘the boy left the house’. This is to say that the causal connection between semantics and syntax noted in languages like English and Italian (Folli and Harley 2006) also exit in BIMO. The verbs involved in the analysis of directionality can then be classified into two groups, i.e. verbs like the ones in (21) which require the DP and verbs like the ones in (22) which do not. Obviously, one can see that some of the verbs embed the semantic feature of direction, something like [+Dir] and do not need any additional overt element, while others do not, i.e. [-Dir], and since they must express directionality, they call for the DP (21).

(21) Barombi  Isubu  Mokpe  Oroko
    lêm jiţîjîā kפקפaking kjåjå go + preposition ‘enter’
    fâjî bûsâ wūzrâ bûrâkâ move + preposition ‘exit’
    źêt âwûwû âgbâ —— climb + preposition ‘ascend’
    sôs siwâ ândô —— come + preposition ‘descend’

(22) Barombi  Isubu  Mokpe  Oroko
    —— —— —— fûmâ ‘ascend’
    —— —— —— sûrûwâ ‘descend’
    tômbû  ekámênê βândzâ tômbâ ‘cross’
    jêjâ jōmbô tôggê âbîsê ‘circle’

The examples provided by BIMO are typical cases showing that semantics can be used to explain syntax, as propagated by theories that recognise a strong connection between semantics and cognition (Talmy 2000) or Cognitive Grammar (Langacker, 1987/1991, 1999, Taylor 2002). Those theories claim that grammar and meaning are inseparable, and that grammar reduces to the structuring and symbolisation of conceptual content and thus has no autonomous existence at all (Langacker 2000: 1). Thus, considering that the presence of the preposition depends on the semantic-syntax requirements of the verb and not automatically and/or systematically on the presence of a locative predicate, one can assume 1) the independence of the preposition vis-à-vis the locative predicate; 2) the syntactic dependence of the preposition to the verb. Consequently there is evidence to assign the function of ‘direction-giver’ to the
preposition and label it directional preposition (DP). The examples from (23) to (25) provide additional evidence to that contention where the nouns ‘top’, ‘down’, ‘side’ are preceded by an obviously directional preposition.

(23a) ʃájí: Ƅ-łèká mű ȵw-á ʃáj-i ú ])**wú ỳ-kòkòò Barombi
3-boy 3.DET 3.CRD- move-FV DP 9.top 3-mountain
PAST
‘the boy moved up the mountain’

(23b) wúwá: ȵw-áná à mà wúw-á ó ỳwànlà mò-kòlì Isibu
3-boy 1.CRD PAST climb-FV DP 9.top 3-mountain
‘the boy climbed up (on top of) the mountain’

(23c) ǹgbá: è-mbèsrà è mà ǹgb-á ó ỳwànlà ɲùkò Mokpe
7.DET- 7. PAST climb- DP 9.top 9.mountain
9.boy CRD FV
‘the boy climbed up (on top of) the mountain’

(23d) kèndè: mò-rèkà mó nò kènd-è ó wànlà mò-kòrì Oroko
3-boy 3.CRD PAST walk-FV DP 9.top 3-mountain
‘the boy moved up the mountain’

(24a) ʃájí: ƅ-łèká mű ȵw-á ʃáj-i ú sì ỳ-kòkòò Barombi
3-boy 3.DET 3.CRD- move-FV DP 9.down 3-mountain
PAST
‘the boy moved down the mountain’

(24b) siwá: ȵw-áná à mà siw-á ó wànlà mò-kòlì Isibu
3-boy 1.CRD PAST move-FV DP 9.down 3-mountain
‘the boy moved down the mountain’

(24c) ǹdè: è-mbèsrà è m-ǹd-ʒ ó rzè ɲùkò Mokpe
7.DET- 7. CRD PAST- DP 9.down 9.mountain
9.boy move-FV
‘the boy moved down the mountain’

(24d) kèndè: mò-rèkà mó nò kènd-è ó sè mò-kòrì Oroko
3-boy 3.CRD PAST walk-FV DP 9.down 3-mountain
‘the boy moved down the mountain’

(25) ʃájí: ƅ-łèká mű ȵw-á ʃáj-i ú ȵlòlè mű ɲakà Barombi
PAST
‘the boy moved across the room’

The nouns ‘top’, ‘down’, ‘side’ can indeed occur as the subject of the sentence, as illustrated in examples (26) with ‘top’ only.

(26a) )**wú  w-ú tèwèdè wú )**wú póp Barombi
‘the top of the table is white’
ON THE TYPOLOGY OF DIRECTIONAL VERBS IN BANTU A

(26b) ̂è-ŋwâŋũ j-à téélî ̂è zràŋgi Mokpe
7.DET-9.top 7-CRD 9.table 7.COP white
‘the top of the table is white’

(26c) wâŋa w-à ̇é-kpôkôrò ̇é sângí Oronko
14.top 14-CRD 7-table 7.COP white
‘the top of the table is white’

Note that in the genitive constructions after the verb in (23)-(25), the DP can be
placed only before the first noun and not before the second. Furthermore, another DP
(underlined) cannot be placed before the second noun as this would result in an
ungrammatical sentence:

(27a) *è-ånèkà mû ŋw-à fâj-î û ìwûû û ̀ńkôkôó Barombi
3-boy 3.DET 3.CRD- PAST move-FV DP 9.top DP 3-mountain
‘the boy moved up the mountain’

(27b) *mûw-aná à mà ìw-à ò wàsâ ò mû-kôlî Isubu
3-boy 1.CRD PAST move-FV DP 9.down DP 3-mountain
‘the boy moved down the mountain’

(27c) *è-ømèbèrâ è mà àgb-à ò ̀ńwâŋà ò òbâkô Mokpe
7.DET- 7.CRD PAST climb-FV DP 9.top DP 9.mountain
9.boy
‘the boy climbed up (on top of) the mountain’

(27d) *mô-rëkà mó nô kënd-è ò sê ò mû-kôrï Oronko
3-boy 3.CRD PAST walk-FV DP 9.down DP 3-mountain
‘the boy moved down the mountain’

The various possibilities of construction of directional events in BIMO inform us on
the evidence that the languages under investigation 1) utilise utterances with verbs that
conflate motion and direction, as well as utterances where the verb must be
accompanied by a DP; 2) use similar strategies to express concept they do not have.
With this evidence, is it possible to conclude that African languages in general (cf.
Schaefer and Gaines 1997) and the Bantu subfamily in particular (cf. Gaines 2001) are
of the verb-frame type? Let us examine utterances with manner of motion verbs in BIMO
to see whether we shall find evidence to support Schaefer and Gaines’ (1997) and
Gaines’ (2001) findings.

3.2 Physical directional motion: complex motion events (motion, direction and manner
in BIMO)

Contrary to Gaines’ (2001) findings on Bantu languages, complex motion events
generally exhibit a simple syntactic structure in BIMO: Motion and Manner are conflated
in the verb and direction is rendered by the DP. The construction type used in such
utterances is greatly identical to what we observed in section 3.1. The verb used here to
illustrate the point is ‘run’:
If we replace the nouns lèwù (Barombi), nywàpà (Isibu and Mokpe) and wàŋá (Oroko) ‘top’ in (28) above by sì (Barombi), wàsá (Isibu), zré (Mokpe), sé (Oroko) ‘down’, we shall have the same syntactic structure.

Complex motion events can also have an adverbial phrase accompanying the verb. These are: ũ tète, ô tîtëñ, ô tënô, and ô tê all preceded by an LP and meaning ‘inside’ in Barombi, Isibu, Mokpe and Oroko respectively.

It can also be ū diàá (Barombi) meaning ‘outside’.

So, it is obvious that the tendency is that complex events are not structurally different from what was discussed in simple motion and directional events in the previous sections.

However, this single clause construction is not exclusive. Two other structures are possible. ‘Ran up’ in Mokpe is rendered by the motion and direction appearing in a main clause, and Manner being an infinitival verb, precisely a participle:
The last possible construction places manner in a main clause, while Motion and Direction are expressed with a participle.

Thus, in BIMO, depending on the preposition following the verb, there are three strategies used to render motion verbs including direction and manner:

1) motion, manner and direction are all stacked in one single clause/sentence and with a locative adverb expressing direction;
2) motion and direction appear in a main clause, while manner surfaces as an infinitival verb form;
3) manner appears in a main clause, while motion and direction are expressed in an infinitival verb form.

The first strategy seems to be the norm, the second marginal, and the third averagely present. Strategy (2) of BIMO being part of the three strategies exhibited by the Bantu languages investigated by Gaines (2001)\(^3\), one can conclude that there are pre-

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\(^{3}\) Gaines (2001: 2) wrote: “I compared data from a sample set of ten Bantu languages: Duala, Ewondo, and Tunen from the northwest part of the Bantu zone; Ruund and Herero from the central and southwestern areas, respectively; Ha, Gikuyu, and Swahili from the east; and Tswana and Zulu from the southeast. Lexical data were compared in all languages for simple motion events. Syntactic data were analyzed from four of the ten languages, Gikuyu, Swahili, Tswana, and Zulu.”
sently at least five strategies to express complex motion events in Bantu. Strategies (1) and (3) are specific to BIMO and not in the languages discussed by Schaefer and Gaines (1997), and Gaines (2001). The three strategies identified by Gaines (2001: 5-6) are:

1) Motion and Direction appear in a main clause, while Manner surfaces in a subordinate clause (Gikuyu, Swahili, Tswana, and Zulu);
2) Motion and Direction appear in a main clause, while Manner surfaces as an infinitival/nominalised verb form (Swahili);
3) Manner appears in a main clause, while Motion and Direction are expressed in a subordinate clause (Gikuyu).

Now, let us turn to the expression of directionality in Extended Motion, Orientation and End Location.

3.3 Extended Motion

Extended Motion describes the physical extent of a non-animate entity as if it were in motion (from and into in the example: The fence goes from my yard into the campus). In BIMO extended motion where a ground source is extended till the limit or border of the goal is expressed with the same structure:

\[
\begin{align*}
\text{3-fence 3.DET 3.CRD-pass PAST FV} \\
\text{DP 9.farm until DP 7-river}
\end{align*}
\]

‘The fence went from the farm to the river’

\[
\begin{align*}
\text{9-fence 7.CRD start.PRS-FV DP 3-farm until DP 3-river}
\end{align*}
\]

‘The fence goes from the farm to the river’

\[
\begin{align*}
\text{7-fence 7.CRD start.PRS-FV DP 3-farm until DP 3-river}
\end{align*}
\]

‘The fence goes from the farm to the river’

\[
\begin{align*}
\text{14.fence 14.CRD pass.PRS-FV DP-7-farm until DP-7-river}
\end{align*}
\]

‘The fence goes from the farm to the river’

Note that the /o/ is realised [w-] when occurring before vowel-initial stems. This also holds true for Mokpe (lwôtêjâ wêkôndâ lwûûkâ wêkôndôtêi i.e. lwôtêjâ œ ekôndâ lwûûkâ œ ekôndôtiêi ‘from Buea to Limbe’) and Isubu (à wôld môôndâ ibôtêjâ wëélê nâte nô môôfî i.e. à wôld môôndâ ibôtêjâ œ ëëëë nâte nô môôfî ‘he worked the farm from the tree to the river’).
In Mokpe, it is possible to stack the verb ‘to start’ (‘l[wòtèjá]’ or to add it (l[bòtèjá] and dBòtèjá) to the main predicate (Isubu and Oroko) without modifying the meaning of the sentence (cf. 41a, b and c respectively).

(41a) e-kòtò  è- wòtèl-ì  li-wòtèj-á ó mò-ónzá lùúká ó mò-zró M 7-7.CRD start. 5.INF- DP 3-farm up to DP 3-river fence PRS-FV start-FV ‘The fence goes from the farm to the river’

(41b) mò- mó kènd-ì i-bòtèj-á ó è-èlé nátè nà ó mò-þáí I óndá 3-farm 3. go.PRS-5.INF-start-CRD FV up to DP 3.river ‘The farm goes from the tree to the river’

(41c) è-jàngá já ké dBòtèj-á ó wèré dáká ó i-ríñá O 7-farm 7.CRD go.PRS.5.INF-start-FV DP 9.tree up to DP 5-river ‘The farm goes from the tree to the river’

In other words, Extended Motion can be rendered by a complex sentence comprising a main clause and an infinitival clause. When the ground source is extended further than the limit or border and gets inside the goal, the preposition ‘to’ is used as the DP preceding the source.

(42a) ḳ-kìmbò mú mú pèn ú pèn nìí útètè ndáwú B 3-fence 3.DET 3.CRD pass.PRS DP 9.farm until DP 9.house ‘The fence goes from the farm into the house’

(42b) kòtò è- úwèlél-é* ó mò-ónzá nátènà òtítènà ndáwò I 9.fence 7.CRD start.PRS-FV DP 3-farm until DP 9.house ‘The fence goes from the farm into the house’

(42c) è-kòtò è- wòtèl-ì ó mò-ónzá nátènà òtílà ndáwò M 7-fence 7.CRD start.PRS-FV DP 3-farm until DP 9.house ‘The fence goes from the farm into the house’

(42d) ñòká ñó- fèsèr-ì w-è-jàngá dáká òtè ndáþò O 14.fence 14.CRD pass.PRS-FV DP 7-farm until DP 9.house ‘The fence goes from the farm into the house’

The idea of ‘start’ seems to be embedded in the semantics of extended motion in Bantu A. Evidence comes from verbless phrases which demand systematically the presence of the basic, non-conjugated form of the verb ‘to start’ to make up the requested meaning. Thus, a phrase like ‘from X to Y’ will be rendered with the infinitive ‘to start’ before the locative marker /ñ/. This is illustrated in (43).

(43a) m-bòtìak-à ú jàwùndè níí ú fàa Barombi 3.INF-start-FV DP Yaoundé up DP Douala

* Note that è- + úwèlélè is realised [júwèlélè] by virtue of an assimilation rule whereby the vowel /e/ becomes /j/ and its tone re-associates to the right.
Similarly, the idea of extension from the locative deictic ‘here’ and/or ‘there’ is rendered with the same infinitive of ‘start’:

(44a) m-bôtêj-à fâ 3.INF-start-FV here ‘from here’

(44b) i-bôtêj-à á nù 5.INF-start-FV LP Adv ‘from here’

(44c) dî-bôtêj-à wájî 5.INF-start-FV here ‘from here’

3.4 Orientation

Orientation expressions serve to orient a stable referent vis-à-vis another (into in The sign points into the city). In BIMO, the construction is done with the verb followed by the DP:

(45a) dî-kông dî jîndî ú-têtê mbôk Barombi 5-spear 5.DET 5.CRD point.PRS DP-inside 9.village ‘The spear points into the village’

(45b) è-kông 5-ôm ywêlê ndé ô-tîtênà mbôkà Isubu 7-arrow 5.CRD-point.PRS COP DP-inside 9.village ‘The arrow points into the village’

(45c) lî-wông 5-ôm ywêlê 0 è mbôwà Mokpe 5-spear 5.CRD-point.PRS DP 7.DET 9.village ‘The spear points into the village’

(45d) dî-kông dî tôwêrê ô-tê mbôkà Oroko 5-arrow 5.CRD point.PRS DP-inside 9.village ‘The arrow points into the village’

Note that the presence of the determinant deletes the DP in Mokpe.

3.5 End location

Finally, end location identifies the position of a stable referent (in in The house is in the mountains). In BIMO, the copula is followed by the DP except in Barombi where the latter is deleted:
The expression of directionality in extended motion, orientation and end location confirms the assumption that the preposition \( \text{Ut} \), \( \text{ȳ} \), and furthermore \( \text{WtWqQ} \), \( \text{WpQi} \), and \( \text{zWp} \) can function as DP and LP. Indeed, in Extended Motion and Orientation where it is more obvious that we are dealing with direction and not location, \( \text{Ut} \), \( \text{ȳ} \), \( \text{z} \), and \( \text{zWp} \) are exclusively used. In end location the LP is used.

4. Conclusion

Direction representation in language is an important issue in Cognitive Science (Van der Zee and Slack 2003). This paper has contributed to this debate by exposing how directionality is constructed in 4 Bantu languages of Zone A.

First, the study reveals that the prepositions \( \text{Ut} \), \( \text{ȳ} \), \( \text{z} \), \( \text{WtWqQ} \), \( \text{WpQi} \), and \( \text{zWp} \) have many uses and meanings. Second, it was demonstrated that BIMO utilises two strategies to express directionality in simple motion-directed events: conflation and splitting depending on the verb used. In other words, the semantic-syntactic property of the verb plays a central role in determining whether a DP will be used or not. Third, contrary to the findings by Gaines (2001), simple sentences can equally express complex motion events. This is even the unmarked situation although there are some instances of complex structures. Thus, my study confirms the use of complex syntactic constructions to express complex motion events like Motion + Manner + Direction which are commonly expressed in a separate subordinate clause. One of the three strategies to account for complex motion events identified in BIMO (cf. 2 below) is found in the Bantu languages investigated by Gaines (2001). Two are "new" or specific constructions in BIMO. Consequently, with this study, one can say that there are five strategies in Bantu to express complex motion events:

1) Motion and direction appear in a main clause, while manner surfaces in a subordinate clause (Gikuyu, Swahili, Tswana, and Zulu) [Gaines 2001: 5-6];
2) Motion and direction appear in a main clause, while manner surfaces as an participial/nominalised verb form (Swahili) [Gaines (2001: 5-6) and this work];
3) Manner appears in a main clause, while motion and direction are expressed in a subordinate clause (Gikuyu) [Gaines 2001: 5-6];
4) Motion, manner and direction are all stacked in one single clause/sentence and with a locative adverb expressing direction [this work];
5) Manner appears in a main clause, while motion and direction are expressed in an participial verb form [this work].

The answer to Gaines’ (2001: 10) question of whether there are other strategies in use in the Bantu languages is yes. Fourthly, this study also unveils a high degree of similarity between Bantu languages with regard to the syntax of simple and complex motion events. Finally the results of the analysis of utterances expressing Physical Motion, Extended Motion, Orientation and End Location permits to content that BIMO is a mixed system including verb-frame and satellite-frame. However, these results are just tentative. It will be purely hazardous to make a definitive statement about the behaviour of verbs and prepositions with regard to direction-marking in Bantu and even in African languages in general unless the great majority of languages in the Sub-family are studied. The fact that these findings differ from what Schaefer and Gaines (1997), and Gaines (2001) discovered some years back is a clear indication that it is not yet possible to typify directional events in Bantu languages. Much is still to be done in the field of the interface between the lexicon, semantics and syntax. More precisely, the relationship between locative and directional constructions must be looked into keenly. Indeed, a deep look at the semantics and syntax of verbs in connection with motion, direction and location will be of great help in the understanding of the typology of directional verbs in Bantu. For example, in Yambassa (A60) and Ewondo (A70), for simple motion events, there seems to be just a locative preposition which may surface or not depending on the semantic requirement of the verb. Indeed, compare the Yambassa examples in (47a) and (47b):

(47a) ýnēnē:  ô-hâñà ili5 ŋen-é nā ŋâñá Yambassa
   1-boy 1.CRD.PAST enter-FV LP 9.house
   ‘the boy entered the house’

(47b)  ô-hâñà āā gś5 gē-ënē
   1-boy 1.CRD.PAST descend-FV 7-mountain
   ‘the boy descended the mountain’

Furthermore, synonym verbs like bōlēgā ‘ascend/climb’ and jâlā ‘ascend/climb’ will have different syntactic behaviour. The verb bōlēgā ‘ascended/climbed’ takes the locative proposition while jâlā ‘ascended/climbed’ does not:

(48a) bōlēgā:  ô-hâñà āā bōlēg-á nā gē-ënē Yambassa
   1-boy 1.CRD.PAST climb-FV LP 7-mountain
   ‘the boy ascended/climbed the mountain’

(48b) jâlā:  ô-hâñà āā jâl-ā gē-ënē
   1-boy 1.CRD.PAST climb-FV 7-mountain
   ‘the boy ascended/climbed the mountain’

Another interesting phenomenon in Yambassa (A60) is the one of semantic specialisation whereby a verb has a specific meaning and implies the absence of any other meaning. For example, the verb hēmē ‘exit, leave, move out’ implies exiting, leaving or moving out of a house and no other place. Thus we have:

5 The 1.CRD.PAST has the allomorphs îì, āā, ēē, ēē depending on the environment.
ON THETYPOLOGYOFDIRECTIONALVERBsinBANTUA

(49) hémè: ò-hàŋà èè hém-é Yambassa
1-boy 1.CRD.PAST exit-FV
‘the boy exited/left/movedout the house’

In other words, the addition of the nominal object “house” would be redundant. When one has to express an exit out of any other place than a house, then the place is specified:

(50) hémè: ò-hàŋà èè hém-é (nà) ìbì-mbògò Yambassa
1-boy 1.CRD.PAST exit-FV LP 8-9.prison
‘the boy exited/left/moved out of prison’

As far as complex motion events are concerned, in Yambassa, Motion and Direction appear in a main clause, while Manner appears in a subordinate clause which can be juxtaposed to the first finite verb (51), or separated from the first finite verb by the locative nominal (52).

(51) ò-hàŋà èè dá à dîn-è nà jàŋà Yambassa
1-boy 1.CRD.PAST go 1.CRD. run-FV LP 9.house
‘the boy ran into the house’

(52) ñnà mbì ądì bòlèg-á gê-ênè à dîn-è Yambassa
1.DET 1.man 1.CRD. climb-FV 7-mountain 1.CRD run-FV
‘the man ran up the mountain’

Similarly, in Ewondo (A70), the examples in (53) show that the LP á may accompany the location (53a and b) or not (53c):

(53a) ndómàn á à pín á nà ndá Ewondo
1-boy 1.CRD.PAST enter LP 9.house
‘the boy entered/moved into the house’

(53b) ndómàn á à kúi á ndá Ewondo
1-boy 1.CRD.PAST exit LP 9.house
‘the boy exited/left/moved out the house’

(53c) ndómàn á à bér ń-kół Ewondo
1-boy 1.CRD.PAST climb 3-mountain
‘the boy ascended/climbed the mountain’

As for complex motions, Ewondo exhibits a 6th pattern where Motion and Direction appear in a main clause, and Manner is expressed by a noun phrase which can be juxtaposed to the finite verb in the main clause (54), or separated from it by the locative nominal (55).

(54) fám á à ká mbìl á ndá Ewondo
1-man 1.CRD.PAST go 9.race LP 9.house
‘the man ran into the house’

(55) fám á à sig ń-kół á mbìl Ewondo
1.man 1.CRD.PAST descend 3-mountain PREP 9.race
‘the man ran down the hill’
These examples from Yambassa (A60) and Ewondo (A70), which are from different clusters, show not only that these two languages are more of the verb-frame type, but also that although there are great similarities in the constructions of motion events in Bantu across Africa, there are also some qualitative specificities that need to be pointed out for a better appraisal of the global situation. This can be achieved only if more works are done on the various clusters comprising the Bantu languages family.

Abbreviations

<table>
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<tr>
<th>Abbreviation</th>
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<td>Adv</td>
<td>adverb</td>
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<td>LP</td>
<td>locative preposition</td>
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References

ON THE TYPOLOGY OF DIRECTIONAL VERBS IN BANTU A 75


Who moves, and why? Somali deictic particles

Ulrike CLAUDI

Abstract

The paper deals with two deictic particles in Somali, the Ventive soo and the Itive sii. It is shown that both particles do not only show their expected basic functions but serve additional functional purposes, depending on the situational context. While the extended function of the Ventive soo is easily explained, the Itive sii exhibits a more complex behaviour. The particle sii may indicate temporal absence of the speaker or – in the case of a first person subject – temporal absence of the addressee. With non-motion verbs, sii may also express verbal aspect. It is shown that the meaning of sii is adapted to the needs of different situational contexts, leading from typical to untypical ones.

1. Introduction

Somali² exhibits a pair of particles that – according to general opinion – serves the purpose of expressing motion towards the speaker or motion away from the speaker, respectively. These particles have been called “deictic prepositions” (Saeed 1993:212), “preverbal adverbial clitics” (Saeed 1999:125), “Direktionspräverbien” (‘preverbs of direction’; Berchem 1991:291), “Richtungspartikeln” (‘particles of direction’; Reinisch 1903:117), “präverbale Partikeln” (‘preverbal particles’; Griefenow-Mewis 2004:146), or simply “adverbs” (Bell 1953:117).

The particle soo, expressing motion towards the speaker, has been called “Venitive adverbial” (Saeed 1999:126) or “Venitiv” (Heine 1978:38, Berchem 1991:291), or “Ventive” by other authors. Although all authors agree that soo indicates that an action is performed in the direction of the speaker, there are hints that this may be a somehow simplified view. The Zorc & Osman dictionary (1993) tells us under soo: “Indicates movement towards the speaker or return after an action is performed; often no English equivalent”. Zorc & Issa (1990:83) give the translation “here, in this direction, hither; go and do X then come back here”; Bell (1953:22) gives the same translation.

The particle sii, expressing motion away from the speaker, has been called “Allative adverbial” (Saeed 1999:126) or “Andative” (Heine 1978:38, Berchem 1991:292). While, in most sources, sii is defined only as an element indicating motion away from the speaker, there are also indications that sii may express something more than movement away from the speaker. One of the oldest sources tells us: “Die partikel sii drückt die richtung vom subjecte weg oder auch die fortsetzung einer begonnenen handlung aus [...]” (‘The particle sii

¹ This paper has profited a lot from a temporal collaboration with Meikal Mumin, Saskia Deffner and Marilena Thanassoula. If not otherwise indicated, the examples stem from Hassan Adam who was born in Hargeisa and belongs to the Isaaq clan. This information is important because several particularities of the elements in question seem to be restricted to the Northern variant of Somali. I express my deep gratitude to Hassan for answering all the questions. Thanks are also due to Monika Feinen for drawing the figures.

² Somali is an Eastern Cushitic language spoken in Somalia, Somaliland, Djibouti and in parts of Kenya and Ethiopia.
expresses the direction away from the subject and also the continuation of an action’; Reinisch 1903:117). In Zorc & Issa 1990:83, we find the translation “there, in that direction, thither; in the meantime; keep on doing X”. The most profound analysis so far is Bourdin 2005. I will refer to this work in course of the paper.

With regard to terminology, I decided to call the elements in question “deictic particles” and name soo a “Ventive” and sii an “Itive” morpheme. This terminology seems to be in accordance with most typologically oriented work on this topic.

In section 2, examples of soo/sii are given that conform to what is expected in a language exhibiting an Itive and/or Ventive morpheme, namely that these morphemes express an orientation away from and towards the speaker, respectively. Accordingly, this section is headed “Expected behaviour”.

Sections 3 to 5 are devoted to what might be called a “deviating” behaviour of the elements in question. Section 3 treats the case where the Ventive soo expresses something that might seem to be the contrary, namely motion away from the speaker. In section 4, an apparently otherwise unattested function of an Itive morpheme is presented, namely the case where sii indicates absence of the speaker. In section 5, I try to explain how the Itive sii, under certain conditions, may express verbal aspect.

In section 6, an attempt is made to etymologize the elements under consideration. Section 7 summarizes the findings made, leading to the conclusion that the functions of Somali soo/sii cannot be adequately described without reference to the respective situational context.

2. Expected behaviour

As the basic function of the elements under consideration is it assumed that soo expresses motion directed towards the speaker (‘hither’) while sii expresses motion away from the speaker (‘thither’). This function is most clearly realized with a verb of movement. In such a case, soo/sii add a directional component to the verb, namely a Ventive/Itive one:

(1a) \[\text{wu}u \text{soc-eyaa} \]
FOC:3SGm walk-PRSPRG:3SGm
‘He’s walking.’

(1b) \[\text{wu}u \text{soo soc-eyaa} \]
FOC:3SGm VEN walk-PRSPRG:3SGm
‘He’s walking towards me.’

(1c) \[\text{wu}u \text{sii soc-eyaa} \]
FOC:3SGm ITV walk-PRSPRG:3SGm
‘He’s walking away from me.’

In (1a) and (1b), it is implied that speaker and subject are in what may be called a “standard starting position”: For the Ventive soo, the standard starting position is that speaker and subject are physically distant (figure 1). For the Itive sii, the standard starting position is that speaker and subject are physically close (figure 2). In both sentences, the speaker is a pragmatically plausible goal or source of the action, respectively. As will be discussed later (see figure 4), it is relevant with respect to sii, that the action can be performed while moving.
In the following example, we find a movement verb which expresses a motion that is explicitly directed to a speaker-independent Goal. The verb mar ‘drop in’ has gurigii Cabdi ‘Abdi’s house’ as its Goal. In (2b), the deictic particle soo adds a speaker-oriented component to the action, i.e. it provides additional information about where the speaker is located. (2b) is taken from Bourdin (2005:16f.); the information in brackets includes not only the deictic inference but also an indication of an imaginable situation where the sentence might make sense.

(2a) subaxkas-ta guri-gii Cabdi buu mar-aa
    every.morning-DEFf house-PMm Abdi FOC:3SGm drop.in-PRSHAB:3SGm
    ‘Every morning, he drops in on Abdi.’

(2b) subaxkas-ta guri-gii Cabdi buu soo mar-aa
    every.morning-DEFf house-PMm Abdi FOC:3SGm VEN drop.in-PRSHAB:3SGm
    ‘Every morning, he drops in on Abdi (on his way to work where I am).’

In (2b), it is thus assumed that the action takes place during an overall movement towards the speaker. It could be expected that sentence (2b), with the deictic particle sii, would produce a meaning like ‘... (on his way from where I am)’. This is, however, not the case (see section 4).

If the deictic center is not the speaker, a pair of so-called “prepositions” (better called “preverbal adpositions”)

\[3\] may be employed:

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\[3\] This term indicates that the position of the element is preverbal while its semantics relate to the noun in a way that is typical for adpositions.
(3) *guri-ga wuu ku soc-eyaa*
   house-DEFm FOC:3SGm GOAL walk-PRSPRG:3SGm
   ‘He’s moving towards the house.’

(4) *guri-ga wuu ka soc-eyaa*
   house-DEFm FOC:3SGm SOURCE walk-PRSPRG:3SGm
   ‘He’s moving away from the house.’

The elements *soo/sii* and *ku/ka* may be combined. If the Ventive element *soo* is combined with *ku/ka*, the result is an expected one: The SOURCE/GOAL meaning goes together with a Ventive one:

(5) *guri-ga wuu ku soo soc-eyaa*
   house-DEFm FOC:3SGm GOAL VEN walk-PRSPRG:3SGm
   ‘He’s moving towards me in or near the house.’
   (Indicating that the speaker is in or near the house.)

(6) *guri-ga wuu ka soo soc-eyaa*
   house-DEFm FOC:3SGm SOURCE VEN walk-PRSPRG:3SGm
   ‘He’s moving away from the house, in my direction.’

It would be expected that sentences (5) and (6), with the particle *sii*, produce a meaning indicating that the subject is moving away from the speaker. This is, however, not the case (see section 5).

With a non-movement verb, *soo* indicates that the action is performed either during or following a movement towards speaker. The interpretation depends on the situation. Meaning (7ii) presupposes, of course, that the person is taking a means of transport that allows him to sleep during the trip.4

(7) *soo seexo*
   VEN lay.down:IMPSG
   i. ‘Come sleep over here!’
   ii. ‘Get some rest (while you’re travelling towards here)!’  (Bourdin 2005:18)

It would be expected that sentence (7) – with the particle *sii* – would produce a meaning like ‘go sleep over there’. This is, however, not the case (see section 4).

3. Unexpected behaviour I: The Ventive expressing motion away from the speaker

The particle *soo* may add a speaker-directed motion to a speaker-independent situation. Depending on the semantics of the verb as well as the speech situation, this motion may precede or accompany the verbal action.

The following sentence may have either an expected (i, ii; see ex. 7) or an unexpected (iii) meaning:

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4 For a traditional Somali nomad, meaning (7ii) is difficult to imagine.
In the following example, \textit{soo} may only have the unexpected meaning:

(9) \textit{hilib soo iibi} meat VEN buy:IMPSG

‘Go buy us some meat (and come back).’ (Bourdin 2005:20)

In certain situations, \textit{soo} may indicate that the speaker has to leave the speech situation, i.e., that he is expected to perform a motion that seems to call for the use of an Itive morpheme. This is, however, not a contradiction to its Ventive meaning. In such situations we have to do with what Bourdin (2005) calls a “roundtrip motion”. It is not difficult to explain why the meaning of a “roundtrip motion” emerges.

For the employment of \textit{soo}, the standard starting situation is that speaker and subject are physically distant (figure 1). In cases where speaker and subject are physically close, we have to do with a non-standard situation that necessarily implies that in order to be able to perform a Ventive motion, the subject has to leave the speech situation first. It is clear that it is the way back part of this roundtrip motion which is the one the speaker is interested in (fig. 3).

![Figure 3](image)

An interesting parallel occurs in spoken French, where it is common to utter “\textit{J'arrive}” (“I arrive”) or “\textit{Je viens}” (“I come”) when leaving a room. This seems to be in contradiction to what the person is doing. The explanation is that the person refers to what he or she is intending to do after the act of leaving (which is evident and has thus not to be expressed) is completed, namely to come back.

In any case, the employment of \textit{soo} indicates that the absence of the subject is a temporary one. This means that \textit{soo} may not be used if the absence is understood as a permanent one. Consider the following sentences:

(10) \textit{wuxuu soo joog-ay afar cisho} FOC:3SGm VEN stay-PAST:3SGm four day:PL

‘He stayed (there) for four days (and then he came back).’ (Bourdin 2005:22)

\footnotesize{5} Bourdin (2005:18) gives two other meanings for this sentence: ‘Go get some rest (and then we’ll get together)’ (face-to-face communication) and ‘Get some rest (and then we’ll get together)!’ (phone conversation). In these cases, however, it is not clear whether the speaker or the addressee is expected to move.
Sentence (10) explicitly indicates that the absence of the subject has been a temporary one – implying that the movement back was directed to the speaker. The following sentence is ungrammatical:

\[(11) *\text{wuxuu soo joog-aa London}\]
\[\text{FOC:3SGm VEN stay-PRSHAB London}\]

Bourdin (2005:22) finds it puzzling why sentence (11) should be ungrammatical instead of showing the expected meaning ‘he ist staying in London (and will then come back)’. The explanation is that Bourdin misinterpreted the aspect marker in (11) as a Present tense marker. It is, however, a Present habitual marker – indicating in this case that the staying in London is a permanent, not a temporary one. This becomes clear if (11) is uttered without the deictic particle:

\[(12) \text{wuxuu joog-aa London}\]
\[\text{FOC:3SGm stay-PRSHAB London}\]

‘He lives in London.’

In order to achieve the intended meaning ‘he is staying in London (and will then come back)’, the Present Progressive has to be used:

\[(13) \text{wuxuu soo joog-eyaa London}\]
\[\text{FOC:3SGm VEN stay-PRSPRG London}\]

‘He is staying in London (and will then come back).’

To conclude: the deictic particle soo implies a temporary absence of the subject which is seen to be followed by a movement towards the speaker. This temporary absence is either given (= standard situation) or it has – for logical reasons – to be realized first (= non-standard situation).

4. Unexpected behaviour II: The Itive expressing absence of the speaker

In (8), we have seen that soo may give three different meanings to an utterance, depending on the situational context:

\[(14) \text{soo seexo}\]
\[\text{VEN lay.down:IMPSG}\]

i. ‘Come sleep over here!’
ii. ‘Get some rest (while you’re travelling towards here)’
iii. ‘Go have a rest (and then come back here)’

In combination with sii, the meaning parallel to (14i) is excluded:

\[(15) \text{sii seexo}\]
\[\text{ITV lay.down:IMP}\]

i. ‘Go sleep over there!’
ii. ‘Get some sleep (while you’re travelling away from here)!’ (Bourdin 2005:21)
iii. ‘Get some sleep while I’m gone!’ (Bourdin 2005:21) or ‘Have a rest (until I come back)’ (Bourdin 2005:17)
How is it to be explained that the meaning ‘Come sleep over here’ (14i) is not paralleled by a meaning ‘Go sleep over there’ (15i)? The reason for this seems to be quite clear: such a meaning is already covered by (14iii). In other words, if the subject is to move (temporarily) out of the situation, soo is employed. Taking into account that sii is clearly younger than the all-Cushitic soo, being a Somali innovation (see section 6), this could also be interpreted in such a way that this possible function of sii had already been occupied by the “roundtrip” function of soo.

The functions of soo and sii are thus not symmetrical:

soo:
- do while moving here
- come + do
- go + do + come back

sii:
- do while moving away
- *go + do (covered by soo)
- *do + go + come back

It is interesting to note that the logical possibility ‘do + go + come back’ is also not realized by sii. It is, however, not easy to imagine a situation where such a meaning could make sense. A possibility would be a situation where a servant is ordered to serve the dinner, then disappear and come back later to fetch the dishes.

In (15iii), the element sii has the intriguing function to indicate that not the subject but the speaker is moving out of the speech situation (fig. 4). This interpretation presupposes that the action cannot be performed while moving – in which case interpretation (15ii) would suggest itself.

\[\text{Figure 4}\]

\begin{center}
\begin{tabular}{|l|l|}
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\textbf{sii}: & \\
\hline
Standard starting position & \\
Implausible that action is performed while moving & \\
SP ≠ Subject & \\
ADR performs / SP moves & \\
\hline
\end{tabular}
\end{center}

Such an interpretation is the general one in cases where soo/sii are combined with non-motion verbs. If the action can be performed simultaneously with a motion, the Ventive/Itive meaning comes in. If this is not plausible or possible, soo allows that a motion occurs before or after the action while sii does not:

(16) soo joog  
VEN stop/stay  
‘Stop and look at me!’

(17) sii joog  
ITV stop/stay  
i. * ‘Stop and look away from me!’
ii. ‘Stay here (until I will come back)!’
Instead, *sii* may express that an action is performed while the speaker is leaving the scene (17ii).

Bourdin (2005) postulates that two constraints are at work for each of the two deictic elements:

**soo:**
1. “Space-Deictic constraint” (“*soo* refers to a motional event which has the deictic center as its ultimate goal”)
2. “Same-Subject constraint” (Subject of verb = figure of motion):
   The Space-Deictic constraint and the Same-Subject constraint constitute the boundaries within which the precise semantics of *soo* is going to play out in a given context. How exactly it is going to play out depends on a number of variables, which include – but are not limited to – the semantics of the verb, the person of the subject, the tense and mood specifications of the verb, as well as the medium of communication, e.g. face-to-face communication vs. phone communication. (Bourdin 2005:18)

**sii:**
1. “Space-Antideictic constraint”
2. “Different-Subject constraint”:
   “... in contrast to *soo*, which had to satisfy both the Same-Subject constraint and the Space-Deictic constraint, *sii* has got to satisfy either what might be called for short the Space-Antideictic constraint or the Different-Subject constraint.” (Bourdin 2005:21)

Bourdin’s analysis is a formalization of the fact that, in some cases, *sii* may refer to the motion of the speaker instead of the subject. The question remains, however, how such a “deviant” behaviour of an Itive morpheme could be explained. It is clear that an answer can only be found when considering the situational context.

Let us imagine that either the speaker or the subject intends or is expected to perform an action during a temporary absence of the other person. If the subject or addressee is the one who is expected to temporarily leave the speech situation then the element *soo* is employed (14iii). If, however, the speaker is the one who is expected to temporarily leave the speech situation it seems to be reasonable to employ the “antipode”, i.e. the element that – in standard situations – expresses the exact opposite of *soo*, namely *sii*.

A somehow comparable situation has been reported from Teso, an Eastern Nilotic language. In Teso, the Ventive/Itive opposition is employed for an aspectual opposition Inceptive/Complettive (cf. section 5). While the Inceptive function of the Ventive can be interpreted as a metaphorical extension of the Ventive meaning, nothing like that seems to account for the relation between the Itive and its function of denoting completed action. Otaala explains this function of the Itive in the following way:

The notion of ‘completing doing s.th.’ by extension corresponds to the notion of ‘doing s.th. a little’ and ‘beginning to do s.th.’ which are found in the ventive extension. This is because the notion of ‘beginning’ in the ventive is the opposite of ‘completing’ in the Itive.” (Otaala 1981:59)

In other words: The desire to express the opposite of inceptiveness – namely completeness – results in employing the Itive for this purpose. Completeness is the opposite of inceptiveness, and the Itive is the opposite of the Ventive; since the Ventive expresses inceptiveness, the Itive is employed to express completeness.

With respect to *soo*/sii, a comparable analogical process may be assumed: The element *soo* may express that the addressee/subject temporarily leaves the situation. Since – in the
basic deictic use – *sii* is the opposite of *soo*, *sii* is employed if the speaker is the one who temporarily leaves the situation.

5. Unexpected behaviour III: Itive expressing verbal aspect

In ex. (5) and (6), we have seen that if the Ventine element *soo* is combined with the preverbal adpositions *ku* or *ka*, the result is an expected one: the SOURCE/GOAL meaning is combined with a Ventine one.

If the Itive element *sii* is combined with *ku* or *ka*, however, the meaning is rather unexpected. Consider the following examples:

(18) **guri-ga wuu ku sii soc-eyaa**  
house-DEFm FOC:3SGm GOAL ITV walk-PRSPRG:3SGm  
‘He’s still moving towards the house.’ (Indicating that the speaker is not in or near the house.)

(19) **guri-ga wuu ka sii soc-eyaa**  
house-DEFm FOC:3SGm SOURCE ITV walk-PRSPRG:3SGm  
‘He’s still moving away from the house.’

In examples (18) and (19), the Itive element *sii* seems to carry an aspectual distinction of a durative kind, involving a notion of counter-expectation in that it refers to a duration that is longer than expected. Example (18) might contain a relic of the original spatial meaning since the sentence indicates that the speaker is not the goal of the action. In (19), it is completely irrelevant where the speaker is located. The meaning of *sii* is solely an aspectual one, indicating a Continuative.

In the following examples, the use of *sii* has two possible interpretations: (i) The action takes place during the temporal absence of the speaker (implying that the speaker will come back), and (ii) that the action is continuing.

(20) **muus wuu sii cum-eyaa**  
banana FOC:3SGm ITV eat-PRSPRG:3SGm  
i. ‘He’s eating a banana while I’m absent.’  
ii. ‘He’s still eating a banana.’

(21) **wuu sii seeexan-eyaa**  
FOC:3SGm ITV lay.down:INF-PRSPRG:3SGm  
i. ‘He’s sleeping in my absence.’  
ii. ‘He’s still sleeping.’

If subject and speaker are identical, *sii* may also indicate that it is not the speaker but the other discourse participant who is temporarily absent:

(22) **waan sii karin-eyaa**  
FOC:1SG ITV cook:INF-PRSPRG:1SG  
i. ‘I’m cooking while you are away.’  
ii. ‘I’m still cooking.’
Meaning (22i) is realized in a situation symbolized in Figure 5:

Interpretation (ii) of (20) – (22) is neither related to anybody’s moving nor to anybody’s position. In these cases, *sii* expresses continuity of action – with a possible notion of counter-expectation. It may be assumed that in cases where no movement is involved, the movement away in space is metaphorically assigned to a movement away in time, i.e. to a prolongation of the action.

With respect to *sii*, we may posit a scenario as in Table 1, leading from a typical situation for the employment of an Itive (I) over less typical situations (II, III) to a rather untypical situation (IV).

Table 1. A hierarchy of situations showing a decrease in typicality for the employment of the Itive morpheme *sii*.

<table>
<thead>
<tr>
<th>ASSUMED ORDER OF DEVELOPMENT</th>
<th>SITUATIONAL CONTEXT</th>
<th>MEANING OF <em>sii</em></th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Directed action</td>
<td>Movement away from speaker</td>
<td>(1c) (15ii)</td>
</tr>
<tr>
<td>(Figure 2)</td>
<td>Subject ≠ Speaker</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Movement of participant involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>Non-directed action</td>
<td>Temporal absence of speaker</td>
<td>(15iii) (17) (20i) (21i)</td>
</tr>
<tr>
<td>(Figure 4)</td>
<td>Subject ≠ Speaker</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Movement of participant involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>Non-directed action</td>
<td>Temporal absence of addressee</td>
<td>(22i)</td>
</tr>
<tr>
<td>(Figure 5)</td>
<td>Subject = Speaker</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Movement of participant involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>Non-directed action</td>
<td>Continuity of action</td>
<td>(18) (19) (20ii) (21ii) (22ii)</td>
</tr>
<tr>
<td></td>
<td>Any kind of subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No movement involved</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What this hierarchy might suggest is a certain obstinacy in the use of *sii*: The situation may be very or even extremely untypical for the use of an Itive – some function is assigned to it.
6. Considering the possible origin of soo/sii

When looking for cognates of (Standard) Somali soo and sii, the different dialects of Somali are, of course, the most interesting field one would like to investigate. This is especially true for the element sii because it does not exist outside Somali. Unfortunately, the dialects of Somali are scarcely documented. Lamberti’s (1986) study of Somali dialects focusses on phonology and does not contribute anything to the problem under consideration.

According to Schleicher (1892:149), the element soo might be derived from so ‘od, i.e. from a relative clause form of the verb ‘go’. It is unclear why Schleicher considered a relative form as a possible source. In Zorc & Osman’s dictionary (1993) we find the citation (= imperative) form soco translated as ‘walk, go on, move, proceed; continue, be in progress’. The verb soco is thus a verb which expresses undirected movement. If we conclude from Schleicher’s description that sii did not yet exist at the end of the 19th century, one might conclude that soo originally expressed movement only (perhaps for purposes of emphasis) and acquired its semantics of Ventive motion only later. It has to be noted, however, that only 12 years later, Reinisch 1903 presents the element sii (see section 1).

The element sii is a Somali innovation. A fairly plausible lexical source could be the verb sii ‘give’. The Dizionario Somalo-Italiano (1985) lists two meanings for sii: a) “dare” (“give”) and b) “Denota separazione, allontamento rispetto al parlante o prosecuzione di un’azione intrapesa” (“denotes separation, movement away from speaker or prolongation of an action”).

A verb ‘give’ is known to develop grammatical meanings like Benefactive or Dative, and it may also give rise to a causative morpheme. Heine & Kuteva’s World Lexicon of Grammaticalization (2002) is full of examples for such cases. Somali has indeed a causative suffix that might go back to this verb:

(23) cab 'drink, take medicine'
    cab-sii 'make s.o. drink, give s.o. to drink' (Zorc & Osman 1993)
    garó 'understand'
    garan-sii 'make someone understand' (Saeed 1993:60)

In the second example, one can see that it is the Infinitive form of the verb ‘understand’ that is combined with the Causative suffix. The Infinitive cannot be distinguished from the verb root with all verbs. If we assume an infinitival complement of sii, the original idea becomes plausible: ‘make someone understand’ = “give someone an understanding”.

A verb ‘give’ contains, of course, an Itive Component. But I do not have any convincing hypothesis about the concept or a morphosyntactic process leading from ‘give’ to the Itive.

7. Conclusions

It has been shown that the Somali Ventive and Itive particles have developed functions that go beyond a “classical” Ventive and Itive meaning, respectively. While the unexpected meaning of soo (section 3) is reasonably explained by the situational context, Itive sii shows a behaviour that is much more complicated. The particles soo and sii do not show parallel functions in all their usages (section 4). This is partly due to the fact that the (older) Ventive soo already covers potential functions of the (younger) Itive sii. Because of this, sii is in some sense “free” to take over other functions that a situation might call for, namely indicating the temporal absence of the speaker (in analogy to soo) or, in case of a first person subject, the
temporal absence of the addressee. In situations where no directed movement or no movement at all is involved, *sii* may express the continuity of an action. The attempt to etymologize the two elements yields a convincing lexical source for the Ventive *soo* and a somehow plausible source ‘give’ for the Itive *sii*. In the case of *soo*, an originally non-directed movement has assumed a grammatical Ventive meaning. Possibly, an Itive component inherent to the verb ‘give’ has been exploited in order to express the grammatical opposite, an Itive meaning. These etymological considerations do not contribute to the understanding of the actual functions of *soo/sii* but themselves call for a more detailed explanation.
Abbreviations
ADR  Addressee  m  Masculine
DEF  Definitizer  PM  Previously mentioned
f  Feminine  PRSHAB  Present Habitual
FOC  Focus  PRSPRG  Present Progressive
IMP  Imperative  SG  Singular
INF  Infinitive  SP  Speaker
ITV  Itive  VEN  Ventive

References
Bourdin, Philippe. 2005. The marking of directional deixis in Somali. How idiosyncratic is it?
Grammaticalization of the deictic verbs ‘come’ and ‘go’ in Syer (Senufo, Gur)

Klaudia DOMBROWSKY-HAHN

Abstract

In the Senufo language Syer the elements $ka(a)$ and $pa(a)$ which evolved from the deictic verbs $MÝ$ and $RŸÝ$ are very frequently found in all sorts of texts. This paper aims to give a first account of the different functions of these elements in Syer grammar and discourse. I hypothesize that they developed out of their use as a first verb in asymmetrical serial verb constructions. They function primarily as speaker deictic elements of itive and ventive which have been extended to non-deictic usage in narrative texts through the possibility of shift of perspective. Transferred from spatial motion to motion from one event to another they function as discourse connectors expressing such notions as purposiveness, unexpectedness, culmination and foregrounding. Extended from spatial motion to motion in time, they have developed to tense-aspect categories like intentional and prospective. They interact in a special way with stative verbs which denote states or processes leading to states according to the aspectual category of the predicate.

1. Introduction

Spatial deixis is understood as those elements that designate “spatial location relative to that of the speech event” (Anderson & Keenan 1985: 277). It is expressed in various parts of speech: locative adverbs, demonstrative pronouns, deictic identifying morphemes (‘presentatives’), verbs, verbal affixes, etc. Among others, in many languages, the verbs ‘come’ and ‘go’ play a dominant role in the spatial deictic system. These verbs evolve frequently to the category of ventive (venitive), expressing motion towards the speaker and/or the addressee and to itive (allative 1), expressing motion to a location other than the deictic center. They can further be extended to centrifugal and centripetal, which indicate orientation toward the deictic center and away from it, without necessarily implying motion. They can acquire the function of a proximal and a distal indicating that an event takes place close to or far from the deictic center, respectively.

Further, spatial references serve as the basis for a variety of metaphorical extensions into domains other than literal spatial location (Anderson & Keenan 1985: 278). Cross-linguistically, several such domains have been identified. Probably the most widespread is the extension of space to time. Taking the speech situation as the reference point, the verbs ‘come’ and ‘go’ are grammaticalized to the deictic category of tense, for instance to past tense that “indicates a situation which occurred before the moment of speech” (Bybee et al. 1994: 55) and to future tense, which “refers to an event taking place after the moment of speech” (Bybee et al. 1994: 244).

1 There are many related terms such as centrifugal, ingressive, efferential (cf. for instance Frjzyngier (1987) and Abdoulaye (1996)), the definitions of which are not always exactly delimited from each other.
Verbs with a ‘movement toward’ meaning, i.e. goal-oriented motion verbs, are particularly favorable to develop into future grams, as their semantics implies movement in space as well as in time, thus facilitating the transition to future (Bybee et al. 1994: 268). The authors even support that in this case there is no need to invoke a metaphorical mechanism, as a temporal meaning can be inferred from the spatial meaning. The subsequent loss of the spatial meaning is the only change that takes place in case of the grammaticalization process of a ‘come’ or ‘go’ verb to a future gram. Intention is a step preceding the development to a future: “When the speaker announces that s/he is going somewhere to do something, s/he is also announcing the intention to do that thing” (Bybee et al. 1994: 269).

Ebert (1987, 2003) further recognizes an anaphoric and a non-anaphoric function of the verbs ‘come’ and ‘go’ in the Chadic language Keré. In the former function elements originating in the verbs ‘come’ and ‘go’ recall the event of ‘coming’ and ‘going’ expressed in a preceding clause. In their non-anaphoric usage there is no recall of the same event, and the deictic verbs take over the function of suddenness.

In a later article built on Ebert’s work, Bourdin (2008) acknowledges the expansion of the deictic verbs of ‘coming’ and ‘going’ from spatial motion to textual connectivity, whereby the motion here is not understood as motion in space but “rather motion in time from one event to the next” (Bourdin 2008: 38). The author identifies such categories as sequentiality – sometimes combined to purposiveness – culminativity, unexpectedness and foregrounding in different narrative texts in African languages that are all realized through means based on the verbs ‘come’ and ‘go’.

A certainly rare development is the extension of the verb ‘to come’ to a deictic demonstrative and of the verb ‘to go’ to an anaphoric demonstrative in Mopun, a West Chadic language. Frajzyngier (1987) shows that the movement verbs previously used as V2 in a serial verb construction were extended to deictic and anaphoric demonstratives, subsequently losing their verbal status.

In the present paper I aim to present the different extensions of the deictic verbs ‘come’ and ‘go’ into grammar and discourse of the Senufo language Syer, motivated by the fact that Syer belongs to those languages for which Heine (2000: 269) states that it is not unusual to find the deictic verbs ‘come’ and ‘go’ – and forms evolved from these – in an unproportional frequency, very often at least once per clause.

I would like to show that the original use of these verbs in serial verb constructions has entailed a development of functions that goes beyond the indication of spatial deixis in a way comparable to some of the aforementioned functions found in the literature. It may be possible to talk of polygrammaticalization in the sense used by Craig (1991) in her study of the development of the verb ‘go’ in Rama, a Chibchan language of Nicaragua. She defines the phenomenon of polygrammaticalization as “a multiplicity of grammaticalization chains that may originate in one particular lexical morpheme” (Craig 1991: 486). I shall demonstrate that in Syer the verbs ‘come’ and ‘go’ have acquired different functions depending on the textual context in which they occur and depending on their interaction with verbal semantics and with aspect (cf. Fleisch, this volume, for a similar situation in Tashelhiyt Berber). At least for some uses the different stages of grammaticalization can be illustrated, manifest especially through the mechanism of erosion or loss in phonetic substance.

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2 I am grateful to the organizers of the directionality workshop in Cologne in June 2010 for their invitation and the participants for their suggestions concerning the subject of my paper. I am particularly thankful to the editors of this volume for their comments. All shortcomings are my responsibility.

3 The situation is similar in other languages spoken in the area, among others in Khe (southern branch of central Gur), where several functions of those found in Syer are attested, too, however with a different distribution of morphemes based on the verb ‘come’ and ‘go’ than in Syer (Bärbel Redmer, personal communication).
The paper is structured as follows: after a short characterization of the Syer language (section 2), I describe, in section 3, the morphological features of the verbs ‘come’ and ‘go’, which show considerable differences compared to the majority of the verbs of the language. Section 4 presents the extension of these deictic verbs as tools of spatial and temporal arrangement of speech acts.

2. Typological characterization of the Syer language

Syer [jyêr] is the name of a Senufo language spoken by a population officially designated as Karaboro, but who call themselves jyéem. The about 25,000 jyéem inhabit a small number of villages in the west and the north of the town of Banfora in the Comoé province in southwestern Burkina Faso.

Syer constitutes together with Kar [kâr] a language group known as Karaboro classified as a separate northeastern subgroup of the Senufo languages (cf. Carlson 1997), which are the westernmost division of the Gur language family. Spoken at a certain distance vis-à-vis other Senufo languages, Karaboro forms a language island surrounded by other Gur languages and the Mande language Dyula.

Syer has the basic word order S Aux O V X. Its verbal system is based on an aspectual distinction of perfective and imperfective verb stems. Tone plays a crucial role in the verbal system, as different tense-aspect and polarity distinctions are expressed by a combination of a particular tonal shape of the subject pronoun and the verb, and, in some cases, additionally by auxiliaries. For instance, an imperfective predication is marked by a high tone pronoun + the imperfective verb stem; further subcategories of the imperfective such as the habitual or the progressive require the presence of an appropriate auxiliary + the imperfective verb stem. Serial verb constructions are common in Syer: clauses may contain two or more verbs sharing one argument or more. Symmetrical and asymmetrical serial verb constructions according to the distinction made by Aikhenvald (2006) are found in the language. Further, more loosely connected events are encoded in consecutive clauses that are marked by a consecutive marker. Oblique arguments and complements are marked mainly by postpositions, but there are also some – chiefly borrowed – prepositions. The nouns display a noun class system of eight (in some varieties nine) noun classes arranged in three to four singular-plural pairings and two single classes. The noun class system is manifest through nominal suffixes and an elaborated concord system including anaphoric, emphatic, demonstrative, interrogative-relative pronouns and determiners and (deictic) identification morphemes (cf. Dombrowsky-Hahn to appear).

3. Morphosyntactic aspects of ‘come’ and ‘go’

Syer has the deictic verbs ke ‘go’ and pè ‘come’. These two verbs show a particular morphosyntactic behavior when compared to other verbs in some respect: a) concerning their perfective and imperfective stems and b) concerning their grammaticalized forms evolved from serial verb constructions.

3.1 Monoverbal predicates with perfective and imperfective stems of ‘come’ and ‘go’

Like other Senufo languages, Syer exhibits two different verb stems: a perfective verb stem, consisting of the verbal root and an imperfective verb stem, consisting of the root plus a suffix. The choice of one or the other form is determined by the tense-aspect category of the predication. Thus, the perfective verb stem is for instance required in the perfective aspect

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4 There are very few verbs that do not have an imperfective stem, among others, the defective verb ye ‘say’.
marked by a low tone on the subject pronoun (cf. 1), or in the remote past displaying the auxiliary ni (ex. 43, 44). The imperfective verb stem is among others required in the habitual aspect marked by the auxiliary nà (ex. 3). Certain tense categories can be combined to special aspect categories, thus for example the remote past tense (auxiliary ni) to the habitual aspect (auxiliary nà, illustrated in (4)); in these cases it is the respective aspect that determines the choice of the verb form.

The imperfective verb stems of all verbs except for ke and pè contain the suffix -ni that can be shortened to -n. The imperfective stem has a low-mid tone shape that can however change according to the tonal shape of the element preceding it. Opposed to the rest of the verbs, the imperfective stems of the verbs ke and pè do not show any traces of the suffix -ni; both show a vowel differing from that of the perfective stem, and an -l- (the stem of ‘go’) or vowel lengthening (the stem of ‘come’). Compare the forms in table 1.

Table 1. Perfective and imperfective stems of regular verbs and of ke and pè

<table>
<thead>
<tr>
<th>PFV</th>
<th>IPFV</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ji</td>
<td>jini ~ jin</td>
<td>‘enter’</td>
</tr>
<tr>
<td>wer</td>
<td>wèrn ~ wèrn</td>
<td>‘cultivate’</td>
</tr>
<tr>
<td>lyë</td>
<td>lyëni ~ lyën</td>
<td>‘be old, become old’</td>
</tr>
<tr>
<td>yö</td>
<td>yöni</td>
<td>‘buy (soap, sumbala, butter)’</td>
</tr>
<tr>
<td>ke</td>
<td>klà</td>
<td>‘go’</td>
</tr>
<tr>
<td>pè</td>
<td>pàà</td>
<td>‘come’</td>
</tr>
</tbody>
</table>

The first four forms in table 1 show the regular formation of the imperfective verb stems through suffixation of -ni, whereas the last two are the perfective stems of the deictic verbs with the corresponding imperfective stems.

The use of both the perfective and the imperfective stems is illustrated in (1) through (8).

(1) ü ñ rì ñ-ler 3SG.PFV DEF7 field cultivate.PFV ‘He cultivated the field.’

(2) wò ñ-wèr-nì 1PL.IPFV IP-cultivate-IPFV ‘We cultivate.’

(3) ... ye nà ñ rì ñ-ler 2PL HAB DEF7 field cultivate-IPFV ‘You cultivate the field (as usual).’

(4) tû-dyùì ni yè ni nà n-tù-n? work-INTER5 IDENT5 you REM.PST HAB IP-work-IPFV ‘What’s the work you used to do?’

(5) la nu ke ki tàà ñ-yë 1SG mother go.PFV DEF3 low-lying-area PP ‘My mother went to the rice field (lit: low-lying area).’

(6) Q: yè ñ-klà nùn-dyùì nì? A: wò ñ-klà ñmò nì 2PL.IPFV IP-go.PFV place-INTER5 PP we IP-go.IPFV funeral PP ‘Where are you going?’ ‘We are going to a funeral.’
(7) ú ye ' mugØo n-tyi mém³ pë.
PR1 say you.EMPH IP-let FUT.ISG come.PFV
‘Hyena said: “don’t mind, I shall (go again and) come (back)”. ’

(8) Context: Hare talks to Hyena’s wife: “roast it well,”
u më’ u m-pØaØa.
PR1 COP 1PR IP-come.IPVF
‘he (Hyena) is coming.’

(1) to (3) display the verb wer ‘cultivate’: in (1) it is used in the perfective aspect with the perfective verb stem, (2) and (3) show the imperfective verb stem: in (2) in the imperfective aspect, in (3) in the habitual. Example (4) illustrates the use of the imperfective stem of the verb tũ ‘work’ combined with the auxiliaries of remote past tense and habitual aspect. Sentences (5) and (7) illustrate the use of the perfective stem of the deictic motion verbs ke ‘go’ and pë ‘come’, sentences (6) and (8) the use of their imperfective stems respectively, in (6) in the imperfective aspect, in (8) in the progressive, characterized by the presence of the copula më.

Note that in several tense-aspects (among others: imperfective, progressive, remote past) the use of an intransitive or a transitive verb without an immediately preceding direct object requires the intransitive prefix (IP) N- on the verb; it is realized as a nasal homorganic to the initial consonant of the verb (ŋ-wérm in 2, n-tůn in 4, ŋ-klà in 6 and m-pàà in 8). This concerns almost all initial consonants, whereby it is not audible with initial /y/, /h/ and /w/ of all speakers.

The existence of different imperfective stems for the verbs ke ‘go’ and pë ‘come’ may seem exceptional in Syer because of the otherwise extremely regular formation of imperfectives through the suffixation of -ni from the perfective verb stems. However, in other Senufo languages, the existence of several different mechanisms for the formation of the imperfective is very common. Thus, for example in Minyanka (Northwestern Senufo, Dombrowsky-Hahn, field notes) in addition to verb stems with identical forms for the perfective and imperfective base, such means as tonal change, lengthening of the final vowel, vowel raising, suppletion and suffixation of -li, -ni, -ri, -gi serve to distinguish the perfective from the imperfective verb form. For some verbs several means are concomitant, for ex. tonal change and suffixation. In the Northwestern Senufo languages the suffix -ni, originally probably a variant of -li, is spreading throughout the vocabulary, a tendency evidenced by the existence of two different imperfective stems for a number of verbs in one language (for Supyire, see Carlson 1992) and the preference of borrowed verbs to take the -ni suffix to form the imperfective base (i.e. Minyanka, Dombrowsky-Hahn, field notes). We can only hypothesize that the situation in Syer shows a quasi-generalization of the process of suffixation of -ni to form the imperfective verb form, a process which is still going on in other Senufo languages. It is effective in Syer for the totality of verbs except for ke ‘go’ and pë ‘come’, which can be considered to be remnants of the former diversity of forms.

3.2 ‘Come’ and ‘go’ in former serial verb constructions

ke ‘go’ and pë ‘come’ are both goal-oriented deictic verbs, ke denoting a motion toward a place situated away from the speaker and pë a motion oriented toward the sphere of speaker (cf. section 4 below). We can assume that ke ‘go’ and pë ‘come’ have developed into several deictic and non-deictic markers through their use in serial verb constructions. Syer makes a

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5 The 1st person singular pronoun combined to the future tense auxiliary me undergoes metathesis: mí me > mëm.
rather frequent use of such constructions, that are defined as a grammatical technique whereby various aspects of a situation or an event are expressed by two or more verbs that form one predicate (Aikhenvald 2006: 55-56). The verbs constituting a serial verb construction share at least one and prototypically all arguments. Each constituent of a serial verb construction can otherwise occur as a monoverbal predicate. The verbs constituting a serial verb construction do not take any marker of syntactic dependency, even if they can include a special marker which distinguishes a serial verb construction from other types of constructions (Aikhenvald 2006: 20).

In serial verb constructions in Syer the constituent verbs are juxtaposed without any connecting morpheme, showing particular tone shapes according to tense-aspect categories with which they are realized. Usually, the segmental form of elements constituting a serial verb construction is identical to their form as monoverbal predicates. Sentences (9) to (11) illustrate the behavior of such verbs as components of a serial verb construction and as independent predicates.

(9) Øu më lyi, û gi trigi ‘figi
PR1 COND exit.PFV PR1 PR3 rub.PFV extinguish.PFV
‘When she (Hyena’s wife) gets out (of Hare’s wife’s house who allows her to take fire), she extinguishes it (the fire) by rubbing it.’

(10) kî trigi
PR3 rub.PFV
‘Rub it!’

(11) kî figi
PR3 extinguish.PFV
‘Put it out!’

In (9) the segmental form of the verbs trigi (L) ‘rub’ and figi (M) ‘extinguish’ is equivalent to the citation form or the imperatives, i.e. the respective verbs used as monoverbal predicates as illustrated in (10) and (11).

The following reason suggests that ke and pê developed into grammatical and text coherence morphemes through their use as first verb (V1) in serial verb constructions. Compared to the verbs as they are used as monoverbal predicates, their form is modified: instead of ke and pê it is ka(a) and pa(a). There is no reliable explanation for the formal difference between these elements and all other verbs occurring in a serial verb construction. We can however hypothesize that the formal distinction between ke and ka(a) and pê and pa(a) originates in the former existence of a connecting morpheme in serial verb constructions. Apart from ka(a) and pa(a) as V1 in serial verb constructions, Syer does not show, in the present state of the language, any trace of a connective. However, the Senufo language Supyire has a morpheme Øa, which distinguishes one kind of serial verb constructions from the less tightly bound consecutive constructions (Carlson 1994: 284-285), and we can assume that a comparable morpheme existed in Syer, too. The vowel lengthening indicated by the vowel in brackets, which seems to be a free variant of the morphemes with a short vowel, is evidence for the former existence of a connective morpheme that has cliticized with the verbs ke and pê, resulting in the actual forms ka(a) and pa(a).

In contrast to (5) above, where ke is the only verb in the clause, (12) bears the form ka, used together with another verb and its object.
(12) mè kā mè kler gbō nín-dyi n n?  
you IT[=go] your things take.PFV place-INTER5 PP  
‘Where have you taken your things?’

Equally, the consecutive clause in (13), introduced by the consecutive marker mè, shows the form pād instead of pē in (7), where it constitutes a monoverbal predicate.

(13) ú wu kler kō mè pād níi  
PR1 his things gather.PFV CONS VEN[=come] sit.PFV  
‘He gathered his things together and settled here.’

When applying Aikhenvald’s definition of serial verb constructions literally, constructions showing kā(a) and pā(a) should not be considered as serial verb constructions anymore, because of the formal difference between ke and kā(a) on the one hand and pē and pā(a) on the other hand and the impossibility of kā(a) and pā(a) to function as independent verbs.

3.3 Degrees of grammaticalization

We can assume that kā(a) and pā(a) developed from former V1 of asymmetrical serial verb constructions and have reached an advanced degree of grammaticalization, i.e. they are presently grammaticalized morphemes. According to Aikhenvald (2006: 21), one of the components of asymmetrical serial verb constructions belongs to a closed class of items and tends to become grammaticalized, while the other component is considered as the major verb. ke and pē belong to the closed class of deictic motion verbs and were thus good candidates for minor verbs in asymmetrical serial verb constructions.

Further features distinguish kā(a) and pā(a) as V1 from other elements in serial verb constructions. For instance, unlike symmetrical serial verb constructions, all components of which belong to an open class of verbs, they do not share the direct object with the other verb(s) in a series. The direct object precedes in such cases the first verb in a series such as in (14). In contrast, in constructions bearing one of the deictic verbs, the direct object precedes the second verb. This distinction is demonstrated in (14) and (15).

(14) ŋiŋ ŋe kā kā mb waa gbú!  
baobab FUT pull.out.PFV PR3.SBJV you throw.at. PFV kill.PFV  
‘The baobab will uproot and throw you dead!’

(15) ú kā kī kēhīje kēl  
PR1 IT[=go] DEF3 bird.DIM3 search.PFV  
‘He (Hyena) went to look for the little bird.’

(14) is an example of a clause with a serial verb construction bearing the elements waa ‘throw at’ and gbú ‘kill’. The second person singular pronoun mè, referring to the addressee, precedes the first verb waa of the series and is the direct object of both verbs.

By contrast, in (15), which displays the grammaticalized form kā of the verb ke ‘go’, the object kī kēhīje belongs only to the verb kēl. This is made obvious by its position following the itive morpheme and separating the two verbs.

The comparison of the forms developed out of ‘come’ and ‘go’ in various functions to be discussed below allows to identify different degrees of grammaticalization: first, the observation that in these functions the forms are kā(a) and pā(a) instead of ke ‘go’ and pē ‘come’, and that kā(a) and pā(a) are not used as independent verbs functioning as...
monoverbal predicates points to the fact that they are grammaticalized to an itive and ventive and to morphemes having diverse other functions.

Second, the grammaticalized morphemes are subject to considerable formal variability. Thus we can observe several realizations of ka(a): it occurs with a voiceless or a voiced consonant or is cliticized to a preceding morpheme. Variation between voiceless and voiced initial consonants is a well known phenomenon in Senufo languages; it is, among others, attributed to the prefixation of a nasal N- resulting in some languages and for some consonants in a prenasalized voiceless or voiced consonant and, in others, in the voicing of an originally voiceless consonant (Manessy 1994). In Syer it occurs, among others, as an intransitive prefix, realized throughout as a nasal consonant homorganic with the initial consonant of the verb with certain tense-aspect categories (cf. section 3.1). Voicing of the consonant in ga as one realization of ka(a) may have the same origin, but it reveals a further development. The exact distribution of ka(a) and its variants (ga, or cliticized -a) however are not yet clear. For that reason, they are designated as ka(a) and pa(a) throughout, but in the examples their effective realization is noted as it is pronounced by the speakers.

The coexistence of the full form and the cliticized form is illustrated by examples (16) and (17), uttered by the same speaker and displaying the same verb N[ŸÝ. In both sentences ka(a) follows the conditional morpheme OžÝ, in (16) in its full form, in (17) as a clitic, resulting in m×a×a.

<table>
<thead>
<tr>
<th>(16)</th>
<th>û</th>
<th>më</th>
<th>gë</th>
<th>lyê,...</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR1</td>
<td>COND</td>
<td>RES[=go]</td>
<td>be.old.PFV</td>
<td></td>
</tr>
<tr>
<td>‘When she grows up ~ once she is grown up ...’, ... <em>you can bring two other measures (of cereals)</em>.</td>
<td></td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>(17)</th>
<th>kî</th>
<th>mágâ</th>
<th>lyê</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR3</td>
<td>COND:RES[=go]</td>
<td>be.old.PFV</td>
<td></td>
</tr>
<tr>
<td>‘When it come to maturity ...’ (Siwahii 0067 02:22,31)</td>
<td></td>
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</table>

Context: ‘... when the maize comes to be dry, we cut it ...’

Here, as observed in many contexts of grammaticalization, the routinization of expressions comes along with the tendency to reduce speech signals or signal simplification (cf. Hopper & Traugott 1993: 64ff).

### 4. The functions of ‘come’ and ‘go’

In the following I present the different domains where the verbs ‘come’ and ‘go’ and the forms that have evolved from them have acquired various functions, comprising the domain of spatial deixis (4.1), the domain of non-deictic use in narrative texts (4.2), different functions as discourse connectors (4.3), tense-aspect markers (4.4) and special functions in combination with stative verbs (4.5).

#### 4.1 Spatial deixis

The verbs pê ‘come’ and ke ‘go’ are elements of spatial deixis; that means that their interpretation depends on the context of utterance. Thus, their original function is in face-to-face interactions, where they indicate locations relative to the place of the participants of the speech event (Levinson 1983: 62ff). Examples (5) and (8) above, containing the verbs ‘come’ and ‘go’ as simple predicates, are interpreted in the context of their utterance: in (5) the speaker, placed at his house at the moment of the speech event, was asked where his mother was, and the goal-oriented verb ke ‘go (away)’ contained in the answer indicates that the
mother’s movement was oriented towards a location situated away from the speaker and thus also from his house; in (8) mpàà, the imperfective stem of the verb pé ‘come’ indicates that the motion event, Hyena’s coming, is oriented towards the place where the conversation between the conversation partners, Hare and Hyena’s wife, takes place.

Corresponding to the independent verb pé ‘come’, the grammaticalized form pa(a) has the function of a ventive marker, representing the orientation of a movement towards the deictic center which is the speaker’s (and the addressee’s) location at utterance time, while ka(a), equivalent to the verb ke ‘go (away)’, has an itive function, expressing that a movement is oriented away from the deictic center at utterance time, and, by extension, an event takes place at a location other than the location of the deictic center at utterance time. (18 and 19) illustrate the ventive / itive distinction in Syer.

Asked about their neighbours’ economic activities, a Syer speaker answers: “When the dry season comes (during the dry season) ...”

(18) ... pí si këfëy tyin-ni yà wò dyè. ... they.IPV NEG mats knit-IPV again 1PL like

pí pa këfëy bò they VEN[=come] mats buy.PFV ‘... they do not knit mats like ourselves, they buy mats here.’

[A returns home after having been away for a while. B asks:]

(19a) mê kà ke-hii pèli? you IT[=go] thing-INTER3 do.PFV ‘What you DO?’ (Dahl 1985, Q 65)

[Answer to Q 65/]

(19b) àn kà dî-yî-ñn bò I IT[=go] eat-eat-thing buy.PFV ‘I BUY food.’ (Dahl 1985, Q 66)

(18) illustrates the ventive function of the element pa(a): the neighbours’ action of buying mats takes place at the location of the speaker at the time of the utterance. In this situation the deictic center is not only the speaker but generally the place of speech, i.e. the village of both, the speaker and the addressee.

The question (19a) and its answer in (19b) bear the itive marker ka(a) that indicates that the action took place in a location other than that of the deictic center, which is, here too, the place of speaker and addressee. In both preceding examples the deictic center is interpreted as the location of the speech event.

Further, like in many other languages, the deictic usage of the verb pé and the related ventive marker pa(a) can be based not on the participants’ actual location, but on a place usually associated with him or her. Thus the spatial anchorage point is not the speaker but his or her normative location called home-base by Levinson (1983: 84). This is illustrated in the Syer sentence (20).

(20) Context: Answer to the question: what do you do besides agriculture? “We collect leaves of the Borassus palm, we descend into the holes and knit mats. (Change of subject pronoun) if you have finished knitting a mat, you go sell it. If you are lucky (i.e. if you succeeded in selling it for a good price) ...”
... m† me lŠm ' kŠl, me tšgšplŠ wŠ
... you FUT condiments buy.PFV you.SBJV sumbala buy.PFV
me pšŠ tšge
you.SBJV VEN[=come] leave.PFV
‘... you buy condiments and sumbala and put them at home (lit: come leave them).’

The conversation during which (20) was uttered, did not take place at the speaker’s home but in another district of her village. In preceding sentences she used the 1st person plural pronoun, and then changed to the 2nd person singular pronoun. The latter refers to the speaker herself and generally to any of her fellows who were referred to in the 1st person plural pronoun before. The form of the ventive, pšŠ, in (20) indicates therefore motion toward the home-base maintained by the speaker, and, by generalization, by her fellows.

4.2 Non-deictic use in narrative texts

Further, the ventive and itive forms are used in narrative texts where they have acquired a non-deictic usage, in that they situate an event in relation to the location of a particular protagonist at reference time and not to the location of participants in the speech event, i.e. the place where the story is narrated. It is possible to talk here of a shift of perspective, a term used by Emanatian and which “is characteristic of deictic verbs of motion” (Emanatian 1992: 8).

(21a) to (21b) is a passage that exemplifies the use of both the itive and the ventive morpheme.

While Hyena is sitting under a baobab which he wants to carry away on his head, a bird talks to him and warns him of a danger if he stays there.

(21a) Šu kŠ kŠ kŠhiige klŠ mŠ gi kŠhiige Š gbŠ
PR1 IT[=go] DEF3 bird.DIM3 search.PFV CONS DEF3 bird.DIM3 kill.PFV
‘He (Hyena) got (lit. went search for) the little bird and killed the little bird,

(21b) mŠ pšŠ kŠ nŠ dŠ mŠ kŠ fŠ
CONS VEN[=come] DEF3 fire put.PFV CONS PR3 roast.PFV
mŠ kŠ higŠge kŠ.
CONS DEF3 EMPH.DIM3 chew.PFV
made fire, roasted it and ate it.’

The anchorage point of the scenes narrated in (21a) and (21b) is not the deictic center in the sense of the participants of the speech event; neither is it Hyena, the protagonist executing the actions of searching for the bird, killing it, making fire, roasting and eating it. The anchorage point here is rather the baobab hiding wealth objects in its interior and under which Hyena sat in the hope not only to get some of these objects but to take the entire tree away. The itiv ka(a) in (21a) indicates that Hyena looks for the bird at a place away from the anchorage point, the ventiv pa(a) in (21b) shows that the events of lighting a fire, roasting and chewing the bird happens again near the baobab.

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6 In addition to the regular noun class suffixes Syer has diminutive suffixes in at least two genders (i.e. singular/plural pairings of classes) and the uncountable plural class, and remnants of such suffixes in another gender. A diminutive suffix replaces the “normal” noun class suffix when it is adjoined to the noun root (kŠhi-ge), further it is optionally added to different concord morphemes, such as an emphatic pronoun (higŠge).
4.3 Functions as discourse connectors

In a way parallel to languages from very distinct families (Chadic, cf. Ebert 1987; Khoisan, cf. Heine 2000), Syer has grammaticalized the verbs ‘come’ and ‘go’ to discourse connectors, which play an important role in the text organization. Heine (2000: 269) defines such items as “clues on how to interpret the text, or certain parts thereof”. Bourdin (2008) calls them “markers of text connectivity”. In Kera, a Chadic language, Ebert (1987) identifies an anaphoric and a non-anaphoric usage of the motion verbs. In its anaphoric function a motion verb is recalled in a following clause and has either purposive meaning or just the function to connect subsequent events to each other. In its non-anaphoric usage a motion verb, combined with a verb such as ‘see’ or ‘find’, signals “unexpected event sequences”. In the following sections I will show that the forms originating from the motion verbs ‘come’ and ‘go’ have acquired similar functions in Syer, too. However, while the anaphoric usage of these elements frequently yields purposive meaning, one of the elements, ka(a), has been generalized as purposive marker even in contexts where it does not recall a motion event with identical meaning. The function of marking unexpectedness is exclusively realized by ka(a). Additionally, a third function can be characterized as a marker of text connectivity, that of culminativity. In this function ‘come’ and ‘go’ signal the end of a preparatory process (cf. Bourdin 2008: 39). The description of these markers in Syer is presented in sections 4.3.1 (purposive), 4.3.2 (unexpectedness), 4.3.3 (culminating) and 4.3.4 (foregrounding).

4.3.1 Purposive or consecutive

The directionals ‘come’ or ‘go’ in Syer have acquired a purposive meaning when they follow a clause containing a predicate with the identical meaning and when they refer back to this verb. The development of a purposive meaning can probably be attributed to the feature of the verbs pe ‘come’ and ke ‘go’ to mark not only deictic motion but at the same time goal orientation.

Compare the three following sentences displaying the verb ke and the morpheme evolved from it.

(22) û ke tyige ni
go.PFV hole PP
‘She went to the (knitting) hole.’

(23) û káá tyige nám5
PR1.PFV IT[=go] rice.field cultivate.PFV
‘She has cultivated rice there (the itive indicates that the rice field is situated away from the deictic center, i.e. the speaker).’

(24) û ke u káá tyige nám5.
go.PFV PR1.SBJV PURP[=go] rice.field cultivate.rice.PFV
‘She went in order to cultivate rice.’

In (22) the verb ke has a locative complement, a postpositional phrase indicating the goal of the motion event of going. In (23) an event stands in place of a nominal element; this has

7 tyige is the word meaning ‘marsh’, ‘rice-field’, ‘hole’, that is a terrain that is situated lower than usual. The actual meaning depends on the construction where it is used. As the object of the verb nám5 ‘cultivate rice’ it can unequivocally be interpreted as a rice field. When talking about the ‘rice field’ without the corresponding verb, it is rather the term tāā ‘low-lying-area’ that is used, as in ex. (5).
required the morpheme *ka(a)*, which has here iterative function, indicating that the event of cultivating took place at a location distant from the location of utterance. In (24) a subjunctive clause with the same morpheme *ka(a)* follows a perfective clause with the verb *ke* ‘go’. The succession of an identical verb points to a situation where it cannot be analyzed just in its literal sense; the repetition of the motion verb has the function of indicating the purpose of the motion. The subjunctive clause encodes an event as the goal (or aim, or purpose) of the verb *ke* ‘go’ and replaces a nominal constituent.

The purposive meaning is not only attested in contexts where the purpose clause shows subjunctive mood like in (24). We find it also in consecutive constructions such as (25) showing the consecutive morpheme *mrebbe*.

\[(25) \text{ù} \text{ kè mè gà pìi jù} \text{PR}1.PFV \text{ go.PFV CONS PURP[=go]} \text{ Hare ask.PFV}\]

‘She (i.e. Hyena’s wife) went in order to ask Hare...’ or: ‘She went and then asked Hare.’

In fact, the context of (25) suggests two alternative interpretations; first, a purposive one: Hyena’s wife prepares the meal for her husband and spends a long time waiting for him. Giving up the hope for Hyena’s coming, she goes to Hare (in whose company Hyena had left in the morning) in order to get news about what happened. So asking Hare is the purpose of Hyena’s wife’s leaving her house. The second interpretation, namely of simple consecutive events, seems to be possible especially in narrative texts, where the former deictic element follows a perfective clause to which it is connected by the consecutive marker *OJa*.

It is not only the verb ‘go’ that conveys a purposive function. Given an adequate context, i.e. a context describing a motion towards the deictic center (or, in narrative texts, toward another anchorage point), the form *pa(a)* corresponding to the verb *RJa* like in (26) is also interpreted as purposive.

\[(26) \text{ti sàsùr màá wùgà wò rì hìgà,} \text{DEF7 corn COND:RES[=go] be.dry.PFV we PR7 cut.PFV}\]

\[\text{wo pè hà nì, wo pà dè.} \text{we.SBJV come.PF home PP we.SBJV PURP[=come] put.PFV}\]

‘When the corn gets dry, we cut it, we come home in order to put it (into a granary).’

The spatial point of anchorage in (26) is again, like in (20) above, a place associated with the speaker, namely his home, mentioned here explicitly. The repetition of the verb in the consecutive clause marked weakly by the subjunctive (mid tone on the subject pronoun) conveys a purposive meaning.

While the use of *pa(a)* as a purpose marker is restricted to a context following the verb *pe* ‘come’, *ga* is generalized in this function to both contexts of coming and going. The juxtaposition of two clauses with incompatible or even contradictory movements, one denoting the event of coming toward the deictic center by means of the verb *pe* ‘come’, and another one, comprising the directional *ga(a)* denoting motion away from the deictic center shows that *ga(a)* reached here a further step of grammaticalization. Being incompatible with the motion encoded in the preceding clause, it does not encode a motion event itself; rather it expresses purpose. This is illustrated in sentence (27).
Grammaticalization of the Deictic Verbs ‘Come’ and ‘Go’ in Syer

Context: once a year the head of the family wishes to see if the tools are in need of repair

(27) mûgû ndûyë fààfû, më lyî ni me gbûhàwô
you.EMPH person every you go.out.PFV with your small.hoe

‘All of you bring the small hoe

ni me tyà n
and your big.hoe PP

and the big hoe (to the head of the family, lit: you go out with the small hoe and the big hoe

me pë me gà u yê r’ gu ni.
you.SBJV come. PFV you.SBJV PURP[=go] PR1 show. PFV PR3 PP

and come) in order to show them (lit.: it) to him.’

Another piece of evidence of a high degree of grammaticalization of ga(a) as a purpose marker is its formal reduction when it is cliticized to a preceding morpheme. It becomes thus a bound morpheme, a phenomenon belonging to an advanced stage of grammaticalization chains (cf. Craig 1991). It can be observed among others in (28).

(28) After having seen the wealth that Hare has given his wife, Hyena’s wife tells her husband:

ke màà pìi c5 nígû nè
go. PFV you.SBJV: PURP[=go] Hare wife house watch.PFV

‘Go to have a look at Hare’s wife’s house.’

In (28) ga(a) is reduced to â and cliticizes with the 2nd person singular pronoun me, assimilating its vowel to the place of articulation of the directional, resulting in mûà.

4.3.2 Unexpectedness

Like Kera (cf. Ebert 1987: 56), Syer shows instances of non-anaphoric usage of the element ka(a) originated from the verb ke ‘go’; that means that its occurrence does not recall the identical motion event mentioned in the preceding clause. This function is mainly attested for ka(a), when it is combined with a verb of perception, especially fàà ‘see, find’. In this case, it has the meaning of an unexpected event like for instance in (29).

Context: the baobab opens its interior / stem

(29) ... mè kà nàà ke-gà’ ke-gà
... CONS UNEXP[=go] see.PFV thing-IND3 thing-IND3

kì sì klë lâ kì fìgë làn
PR3 NEG look.for.PFV do.in.vain.PFV DEF3 baobab inside

‘... and suddenly he (Hare) saw (that) there wasn’t anything lacking inside of the baobab.’

In (29) Hare does not change his location at all, so a motion can be excluded; he was talking to the baobab while sitting in the shade of its leaves and praising its coolness. Then the baobab divides its stem. What Hare sees, still sitting in the same place, when the baobab opens its interior, comes as a surprise.

In (30) ka(a) is found in an irrealis conditional clause where it is cliticized to the conditional auxiliary mè, however with a vowel assimilated to that of ka(a) (mè + ka(a) > màà). With an inanimate subject and an object designating a human being, the verb nàà denotes ‘happen to someone’. Again, it denotes an unexpected event.
The same function with verbs having similar meaning is attested in Kera (Ebert 1987: 56, 2003: 115) and in Kxoe (Heine 2000: 279-280). Ebert’s explanation why ‘come’ and ‘go’ trigger the meaning of suddenness, unexpected event sequence or surprise when they are combined to verbs of perception is the following: “what somebody will see or find is not normally predictable” (Ebert 1987: 56). A similar explanation holds for ka(a) in its function of unexpectedness in Syer, too.

In my text sample, examples of ka(a) marking unexpectedness are found only in co-occurrence with the verb ñá‘ see, find’, but elicited sentences show it also with other verbs or serial verb constructions, such as the answer to question Q B9 of Dahl’s questionnaire (31).

[The speaker is right back from a walk in the forest: Do you know what just happened to me?] (31) n na n-tiğ-a n wolge lânj, I PROG IP-walk-IPFV bush inside


In a cross-linguistic study of grammaticalization of ‘come’ and ‘go’, Bourdin (2008: 45) states that “most languages using a directional deictic to encode suddenness or counter-consecutiveness employ ‘go’”. He relates this function to the deictic character of the verb ‘go’ to “refer to motion towards a site other than the deictic center [...] [The] otherness takes the form of narrative dissonance, in other words the narrative takes a turn other than that which the flow of events thus far should have led to” (Bourdin 2008: 45).

This explanation is pervasive for Syer too, where only ka(a), the grammaticalized ‘go’ is found as a marker of unexpectedness; pa(a) has not acquired this function. However, it is doubtful if Bourdin’s thesis can be generalized, as there are cases where it is the verb ‘come’ that has probably developed into a similar category, such as -che-, arisen from the verb -cha ‘come’ in Chagga (Emanatian 1992: 4ff). According to Emanatian (1992: 9), -che- adds a nuance of happenstance to an event encoded in the past and past-related tense-aspects. She compares events in a narrative text to journeys: “[...] the range of things a traveller might meet along a path is not subject to planning or control”. The scarcity of examples (Emanatian 1992: 9 gives only one) and the use of -che- with other verbs than perception verbs do not necessarily allow to identify the happenstance category in Chagga with the unexpectedness or suddenness category in Syer, Kera and languages considered by Bourdin. However, a much more detailed analysis within the individual languages could reveal in how far the absence of planning or control, mentioned by Emanatian as a characteristic feature of happenstance and the impossibility of prediction referred to by Ebert as a feature of unexpectedness have something in common.8

8 Anne Storch has drawn my attention to a possible relation between the unexpectedness category in Syer to the semantic and grammatical category of mirativity. Found, among others, in Balkan and Tibetan languages, it is
4.3.3 Culminative

The function of “culminative” is defined as a means to configure “an event as the end-point of a preparatory process” (Bourdin 2008: 39) or, as I would generalize this functions for Syer, the arrival to an end point or final stage of a durative action. Such an end point can be an attained state or a particular moment. In the texts, the culminative function of ka(a) and pa(a) is particularly attested with stative verbs in temporal ‘until’-clauses, expressing a resulting state as the terminal point of another event.

In these cases the initial clause, i.e. the main clause which precedes the ‘until’-clause, expresses a progressive or durative event. There are several means to encode such an event: a verb used in the imperfective aspect or a subcategory thereof such as the progressive, a reduplicated verb or ideophone or an action verb with an inherent durative meaning, which need not necessarily be encoded in the imperfective aspect. The ‘until’-clause is most often introduced by the conjunction fœ ‘until’, borrowed from the lingua franca Dyula, or fœ-mœ-sœ, a conjunction combined of the borrowed conjunction fœ and the verb sœ ‘catch’; however Syer speakers emphasize that the conjunctions can be omitted without any modification of the meaning.

In direct speech, the choice of the directional shows that the construction has maintained a deictic, albeit temporal deictic, meaning: pa(a) (<‘come’) refers to a process that starts in the past and culminates at the moment of speech, whereas ka(a) (<‘go’) refers to a process that culminates at a moment different from the time of utterance. In narrative texts, where the anchorage points are distinct from the moment when the narration is uttered, only ka(a) indicates the terminal point of a state in ‘until’ clauses. (32) and (33) illustrate the contrast between pa(a) and ka(a) in ‘until’ clauses.

(32) yè ni nà dyii wò pyi-n
you.PL REM.PST PROG INTER5 FOC do-IPFV
fœ-mœ-sœ mè pàá lyè nè mëgrì?
until-CONS-catch CONS CULM[=come] be.old.PFV so this.way
‘What have you been doing until getting old like this?’

(33a) Hyena’s wife prepared the meal ...
mè ù pl5 sigi sigi sigi ...
CONS her husband wait.PFV wait.PFV wait.PFV
N: ‘… and (she) waited for her husband and waited.’

(33b) màà fnà.
CONS.CULM[=go] be.tired.PFV
A: ‘until she got tired.’

(33c) mè gà fnà.
CONS CULM[=go] be.tired.PFV
N: ‘until she got tired.’

defined as “the linguistic marking of an utterance as conveying information which is new or unexpected to the speaker” (Delancey 2001: 369-370, emphasis KDH). Even if it is most frequently attested in languages that possess at the same time the grammatical category of evidentiality, DeLancey (2001: 370) stresses that there are languages where expressions of mirativity have no grammatical connection to any evidential system. The reason why I hesitate to call it simply a mirative category in Syer is the fact that the marking by means of ka(a) does not obligatorily encode the speaker’s surprise but also, according to the context in narrative texts, the protagonist’s surprise (cf. Bourdin 2008: 39).
In (32), a question addressed to an old man, the deictic element is įāā, the directional denoting proximity to the deictic center interpreted here in temporal sense, i.e. to the moment of utterance. The stative verb ‘be old’ combined with the directional įāā ‘come’ informs us that the addressee is old at the moment of utterance and a free translation could be: ‘what have you been doing until now that you are old?’

(33a) to (33c) is a portion of a story: in (33a), the narrator of the story uses the reduplicated verb sigt ‘wait’ to express the state of waiting as a durative event which constitutes the “preparatory process”. The culmination of the prolonged situation is, here too, encoded in a stative verb combined with a directional, in this case ka(a) ‘go’. It is uttered twice: in an auditor’s intervention (33b), and its repetition by the narrator (33c). The narrator uses the complete form ka(a) in (33c), which is here the low tone įāā because of a tone sandhi according to which the low tone of the consecutive morpheme spreads to the right. By contrast, the auditor uses the free variant māā in (33b), a form where the directional ‘go’ has cliticized to the consecutive morpheme (< ĭā įā). Unlike pa(a) (<‘come’) in (32), which expresses the terminal point of the process of getting old that coincides with the moment of utterance, ka(a) in (33c) and in its cliticized form in (33b) is not deictic: the anchorage point is within the world of the story of Hare and Hyena. Note that in the non-deictic uses the form pa(a) does not occur, and ka(a) is generalized.

The stative verb hwï ‘be finished’ can be used also as a transitive action verb ‘finish’. Combined to ka(a) and pa(a) in temporal ‘until’-clauses it means ‘bring something to an end’.

Here too, the ‘until’-clause can but need not be introduced by the conjunction fï ‘until’. I assume that the borrowed conjunction is employed in almost all contexts of culmination in freely produced texts because it entails greater explicitness. In (34) the ‘until’-clause is not encoded in a consecutive clause bearing the consecutive morpheme ĭā like in (33) but in a dependent subjunctive clause.

(34) mè me ye me trè wer
you FUT be.able you.SBJV field cultivate.PFV

fï me įā laa hwï ni me to nī
until you.SBJV CULM[=go] sun end.PFV with your father PP

‘You can cultivate with your father until sun sets.’

(34) illustrates the culminative function of the directional ka(a) following an event encoded in the action verb wer ‘cultivate’ that has an inherent durative meaning. The culmination is the end of the day and is expressed as ‘ending the sun’.

Instead of a durative event the preparatory process can be a lengthy period of non-occurrence. In such cases the ‘until’-clause encodes an event or a state as the culmination point of this non-occurrence. Thus, in (35) the culmination point is an idiomatic way to express ‘up to now’, ‘until now’: the verb yïgï ‘let’ co-occurring with pa(a), the grammaticalized form of the verb ‘come’, combined to the adverbial ĭmï ‘like this / like that’. Like in other utterances taken from conversations (in contrast to narrative texts), pa(a) ‘come’ still shows its temporal deictic function, even if it has not maintained any trace of its meaning of physical motion (cf. 32 above).

(35) wāā ni sÌ nān pyi yā fï mè įāā yïgï ĭmï. IND1 no.one NEG.PF war make again until ss CULM[=come] let.PFV like.that

‘Nobody has made war again until now.’
4.3.4 Foregrounding

In narrative texts the directionals can have a foregrounding function. The clauses containing them either introduce a new scene or present a new protagonist.

(Context: Hare and Hyena used to chase in the forest)

(36)  pïi  gā  kë  plh-gā ...  
    Hare  NEW[=go]  go.PFV  day-IND3  
    ‘Hare went one day ...’

A literal interpretation of the two juxtaposed forms of ‘go’ in (36) would not make any sense. The protagonists, Hare and Hyena, are known at this point of the story from the background information; the event of Hare’s departure in (36) introduces a new event.

In this function ka(a) is often used following a presentative clause containing a deictic identification morpheme. These morphemes are in grammatical agreement with the noun class of the noun to which they refer. They are translated in French by ‘voici’, ‘look at, here ... is’. The use of a deictic identification morpheme makes the narration more vivid; it serves the animated presentation of the protagonists. The following clause (37) with the foregrounding ka(a) introduces a new event in which the protagonist acts as an agent.

(Context: Hyena’s wife finally took fire at the house of Hare’s wife and went home.)

(37)  ù  plç  ñwo,  ú  gā  lyì  úro-ûro-ûro  
    PR1  husband  DEIC.IDENT1  PR1  NEW[=go]  come.out.PFV  hyena.marching  

  wulge  ñ  mē  pē  
  bush  PP  SS  come.PFV  
  ‘Look at her husband / And here is her husband: he got out from the bush and was coming (to his wife’s house).’

The protagonist presented in (37) has been mentioned before, but has not really entered the scene up to this moment. The deictic identifier ñwo agrees with the noun plç ‘husband’ which belongs to class 1. The grammaticalization seems to be even more substantiated in (38), where ka(a) in the function of foregrounding or introduction of a new event co-occurs with the verb pē ‘come’, which is incompatible with the original meaning of ke ‘go’ from which ga evolved.

Context: The speaker reports how the Karaboro settled first in the western, later in the eastern part of the Karaboro area. Up to this time their social structure was egalitarian.

(38)  fëngà-fë  gā  pē  
    power-owners  NEW[=go]  come.PFV  
    ‘(And then) the (different) conquerors came (i.e. Samori, Tyeba, the colonial power).’

4.4 Grammaticalization to tense-aspect categories

4.4.1 Intentional

Intention, which can be defined as an intended or desired result, is closely related to purpose. Intention here is understood as the verbal or mental determination of some action or its results. In Syer, intention is expressed through ka(a) and pa(a) following the verb ye ‘say’. The examples expressing intention range from ambiguous cases that can be interpreted as
deictic motion events and intentional at the same time (39) to pure intentionals, containing no explicit motion event (40).

(39) ... yí wù ní yè ú páa níi,
  REL1 PR1 REM.PST say PR1.SBJV come settle.PFV
  u lyöu wentgar ni.
  PR1 exit.PFV hunting PP
  ‘... the one who intended to settle here, left his hunting (lit: who said he comes settle).’

Following the verb ye ‘say’, pa(a) ‘come’ in (39) expresses intention and at the same time motion towards the location of the deictic center at utterance time, which is the speaker’s village.

Other contexts exclude the interpretation as a motion event and can thus be understood only intentionally. Only ga is found in these contexts. For instance, (40) does not imply any motion: It was already said that the person who the pronoun of class 1 refers to had already come to the village where the sentence is uttered; he does not move to another place.

Context: He came here.

(40) ú yè u gâ níi
  PR1 say PR1 INTENT[=go] settle.PFV
  ‘He wanted to settle.’

In this example an understanding as a motion away from the deictic center would make no sense, because the speaker noted already that the settler came to the place where he later settled.

4.4.2 Prospective

The verbs ‘come’ and ‘go’ are ideal candidates to develop into tense-aspect morphemes because of their directedness and because of the general tendency of spatial terms to convey temporal notions. The verb ke ‘go’ designating, in a spatial sense, motion away from the speaker, is transferred, on the temporal level, to mean motion away from a temporal anchorage point, which is often the present moment or the moment of utterance.

A step towards temporal-aspectual markers is obtained with the development of ka(a) from an intentional and purposive to an aspectual marker, the prospective. Comrie (1976: 64-65) defines the prospective as an aspect symmetrical to perfect: while perfect is retrospective in that it “establishes a relation between a state at one time and a situation at an earlier time”, the prospective aspect indicates that “a state is related to some subsequent situation”. Thus, both prospective and perfect view an event as relevant or psychologically linked to another state, frequently to the present situation (cf. Fleischmann 1982: 96: “present relevance”).

In Syer the morpheme ka(a) is found combined with the future morpheme me. It has the function of a prospective, when occurring with dynamic verbs as exemplified in (41). We can hypothesize that it developed out of the intentional, where it displays the verb ye ‘say’. The situation of ga(a) is parallel to the English prospective construction be going to, which does not convey the idea of imminent future like the other prospective constructions by means of be about to or be on the point of. The be going to construction rather makes allusion to an intention (Comrie 1976: 64).
4.4.3 Negative Future

The negative is usually encoded by a negation morpheme sì which follows immediately the subject of the clause. This negation pattern is general for all tense-aspects (except for the imperative mode). The combination of the tone of the subject pronoun and the tone of sì, possibly a tense-aspect auxiliary and the verb stem decides which tense-aspect is expressed in the negative clause. This can be seen in the following paradigm:

Negative perfective
u sì kêtrìgè wer
PR1 NEG land cultivate.PFV
‘He did not cultivate land.’

Negative remnant past
u sì’ nî kêtrìgè wer
PR1 NEG REM.PAST land cultivate.PFV
‘He had not cultivated land.’

Negative remnant past habitual
u sì’ nî nàà kêtrìgè wer-n
PR1 NEG REM.PAST HAB land cultivate-IPFV
‘He did not (habitually) cultivate land.’

Negative future
u sàà kêtrìgè wer
PR1 NEG.FUT land cultivate.PFV
‘He will not cultivate land/he is not going to cultivate land.’

As is visible from the last example, the future negative displays the form sàà, which is supposed to be the result of sì + gà. It does not occur in this analytic form in Syer, but in the neighbor Karaboro language Kar both the analytic and the cliticized form (however with a different tone) can be found.

4.5 Interaction between verb semantics and TAM: directionals with stative verbs

4.5.1 Stative verbs in Syer

Many stative verbs in Syer have the meaning of properties, qualities or attributes comparable to English adjective predicates ‘be old, be hot, be cold, be good, be bad, be big, be red’, etc. The category of stative verbs in Syer behaves distinctly when compared to dynamic verbs in several respects. While dynamic verbs used in the perfective aspect generally designate a completed action, frequently with past time reference (cf. 1), stative verbs used in the
perfective denote a state with present time reference. A perfective construction such as (42) means therefore ‘she is old’.

(42) ū lyē
s/he be.old.PFV
‘S/he is old.’

Past time reference of states encoded by these verbs is obtained by means of the remote past auxiliary ni (realized high before a low tone verb) and the perfective stem of the verb. This is illustrated by (43), an elicited sentence, and (44), taken from a text.

(43) [Talking about a house in which the speaker used to live but which has now been torn down]
ki ngū ni m-bug³
DEF3 house REM.PST IP-be.big.PFV
‘The house BE BIG.’ (Dahl 1985, Q. 3)

(44) Context: Those who had left our village ...
piɡê nif n-niɡê
EMPH2 REM.PST IP-be.numerous.PFV
‘... were a great many.’

When stative verbs are used in tense-aspects that require the imperfective verb form, they denote the corresponding process leading to the state, i.e. they have a dynamic interpretation. This is illustrated in (45), where the otherwise stative verb lyē ‘be old’ is used in the progressive aspect and denotes the ongoing process of ‘getting old’.

(45) ki dyiɡî nsi ná n-lyê-ni.
DEF3 crops PART PROG IP-be.old-IPFV
‘The crops are getting older (i.e. ripening).’

4.5.2 Resultative / Inceptive

The co-occurrence of a stative verb and the directional ‘go’ has different functions according to their double interpretation as stative or dynamic verbs: a stative verb in the perfective stem attains a resultative notion; in the imperfective stem it acquires inceptive meaning, denoting entry into the state. Resultative is understood as “a state that was brought about by some action in the past” (Bybee et al. 1994: 63) or by a corresponding process, if we have to deal with stative verbs in Syer. And the authors add that it “signals that the state persists at reference time”. (46) exemplifies the resultative meaning, (47) the inceptive.

Context: talking of migrants who had come to a part of the Karaboro region:

(46) ...pi gê hyêr plê nê pi ná m-pyê
...PR2 RES[=go] be.numerous.PFV REL2 PP PR2 PST IP-be.NON-PRES
‘They grew more numerous than those who had been (there) before.’

(46) refers to the following context: Migrants coming from the village of Sityana seized land in the eastern part of the Karaboro region and made it their own. After a certain time, they became more numerous than the former inhabitants of the region. The original goal orientation of ka(a) conveys a resultative notion, namely the idea of reaching the state of being numerous that holds at the moment of speaking.
In (47) ka(a) is cliticized to the consecutive morpheme me. Combined to the imperfective verb form hwɔm of the verb hwɔ ‘be finished, finish’ it conveys an inceptive notion. The directional is further found with stative verbs in clauses in the future tense and in conditional clauses.

4.5.3 Conditional

Conditional clauses in Syer are marked by means of the conditional morpheme me’ in auxiliary position. It is the same auxiliary in irrealis ‘when’-clauses and true irrealis conditional clauses translated into English by ‘if’. Thus the irrealis ‘when’-clause 103 and the ‘if’-clause 104 of Dahl’s questionnaire are both formed by means of the conditional morpheme me’.

[The boy is expecting a sum of money]

(48) û me l t wɔđëë pąā, ú me nbugɔn klà bɔ tıcɔgɔ kì PR1 COND DEF5 money find.PFV PR1 FUT respect thing buy.PFV girl PP ‘When the boy GET the money, he BUY a present for the girl.’ (Dahl 1985, Q 103)

[The boy thinks that he will perhaps get a sum of money]

(49) û me wɔđëë pąā ú me nbugɔn klà bɔ tıcɔgɔ kì PR1 COND money find.PFV PR1 FUT respect thing buy.PFV girl PP ‘If the boy GET the money, he BUY a present for the girl.’ (Dahl 1985, Q 104)

The only difference between (48) and (49) is the definite form of the object noun wɔđëë ‘money’ in the ‘when’-clause (48, Dahl’s 103) where the money the boy expects is a known entity, while the indefinite form of the object noun corresponds to the fact that it is unknown in (49, Dahl’s 104).

With stative verbs the directional ka(a) is added to the conditional morpheme me’, most frequently as an enclitic (me’ + gà, realized məa), signaling the terminal point of the process leading to this state of being set, literally ‘finished’. (50) is the continuation of (34), which contains ka(a) as culminative marker in an until-clause.

(50) laa məa hwɔm, bɔ û yë yigà sun COND:RES[=go] end.PFV INTERJ PR1.SBJV you.PL release.PFV ‘At the end of the day (when the sun comes to set), he lets you go.’

(51) and (52), which contain the same verb, show that the cliticization is possible but not obligatory. Uttered by the same speaker, məa in (52) can be considered to be a free variant of me’ gà (51).

(51) û me gà lyë, PR1 COND RES[=go] be.old. PFV ‘When she grows up ~ once she is grown up’ ... you can bring two other measures (of cereals).

(52) ki məa lyë, PR3 COND:RES[=go] be.old. PFV ‘When it (= the maize) comes to maturity’ ... we cut it.
4.5.4 Future

Future morphemes have the prototypical meanings of future time reference, an action planned or intended by the agent, and prediction (Dahl 1985: 105). Simple future time reference with dynamic verbs is conveyed in Syer by the morpheme \textit{OÝ} when the future event has no particular relevance for the event of the present moment. This is illustrated in the main clause following the conditional clause in (48) above.

In contrast to dynamic verbs, a true prediction of situations encoded by stative verbs is expressed by means of \textit{me gà} or its cliticized form \textit{màà} such as in (53), which corresponds to sentence 36 of Dahl’s (1985) questionnaire.

\begin{verbatim}
> [It’s no use trying to swim in the lake tomorrow.]
\begin{tabular}{llll}
\textbf{ki} & \textbf{lugà} & \textbf{màà} & \textbf{niñ} \\
DEF3 & water & FUT:RES[=go] & be.cold. PFV
\end{tabular}
\end{verbatim}

‘The water BE COLD (then).’ (Dahl 1985, Q 36)

Thus, the conditional and the future tense with the perfective stems of stative verbs require the directional \textit{ka(a)} which conveys the notion that the state is resulting from the corresponding process.

5. Conclusion

I have shown that the grammaticalized morphemes that evolved from the deictic motion verbs \textit{ke ‘go’} and \textit{pè ‘come’} have acquired not only functions like itive and ventive where a certain deictic component is maintained but also, through a shift of perspective, extended non-deictic uses in narrative texts. Instead of referring to the position of a participant in the speech event they refer in these cases to the location of a particular, contextually determined reference point.

Further grammatical functions of \textit{ka(a)} and \textit{pa(a)} can be ordered in two groups: the category of discourse connectors and the category of tense-aspect markers. Among discourse organizing morphemes are those marking purpose, unexpectedness, culmination and foregrounding; among the tense-aspect morphemes there is the prospective that developed out of the intentional, and the negative future. The directional \textit{ka(a)} shows a particular interaction with stative verbs. This is due to a characteristic feature of these verbs to encode a state and, at the same time, the process leading to this state. Combined to perfective verb forms \textit{ka(a)} imparts the notion of a resultative; combined to imperfective verb forms it conveys inceptive meaning. It can co-occur with the conditional and the future auxiliary.

Both morphemes can be used in the discourse functions that maintain a spatial or temporal deictic component; for instance
- the purposive (when somebody comes or goes in order to do something);
- the intentional (when somebody announces that s/he is going or coming to do something);
- the culminative (when the preparatory process or durative action started in the past and culminates in the present or when it culminates at another moment).

When these functions are connected to activities that do not include a motion event, \textit{ka(a)} is generalized. The other functions originating from a deictic motion verb (unexpectedness, foregrounding and the diverse tense-aspect categories) display only \textit{ka(a)}. This leads to a situation of asymmetrical distribution of \textit{ka(a)} and \textit{pa(a)}.

The different grammaticalization clines of \textit{ke} and \textit{pè} have taken advantage of a particular semantic feature of these verbs; thus those leading to purposiveness, culmination, intention
and resultative make use of the goal orientation of the verbs \(pe\) ‘come towards the deictic center’ and \(ke\) ‘go to a place distant from the deictic center’, while the functions of unexpectedness and foregrounding, displaying only the morpheme originating in the verb \(ke\) ‘go’, make use of their deictic character, stressing the otherness in regard to the deictic center. The changing forms of \(ka(a)\), realized as \(ka, kaa, ga\) or as a clitic, show that these morphemes are in an ongoing process of grammaticalization.

### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>COND</td>
<td>conditional</td>
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<tr>
<td>CONS</td>
<td>consecutive</td>
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<td>COP</td>
<td>copula</td>
</tr>
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<td>IDENT</td>
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<td>interjection</td>
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<td>IP</td>
<td>intransitive prefix</td>
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<td>IPFV</td>
<td>imperfective</td>
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<td>itive</td>
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<td>negative</td>
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<td>prospective</td>
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<td>REL</td>
<td>relative pronoun or determiner</td>
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<td>RES</td>
<td>resultative</td>
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<td>SBJV</td>
<td>subjunctive</td>
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<td>SG</td>
<td>singular</td>
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<td>UNEXP</td>
<td>unexpectedness</td>
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<td>VEN</td>
<td>ventive</td>
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References


On the different uses of the deictic directional verbs
‘go’ and ‘come’ in N‘ng*

Martina ERNSZT

Abstract

In the languages of the world, deictic directional verbs meaning ‘go’ and ‘come’ are the source for a large variety of different grammaticalized functions. The investigation of a corpus of approximately 90,000 words\(^1\) shows that the verbs for ‘go’ and ‘come’ are more frequent in N‘ng than any other verb. ‘go’ and ‘come’ are often used as full verbs with their original lexical meanings, but they are also very common in constructions with more than one verb, like serial verb constructions and other multiple verb constructions, where they can have more grammaticalized functions: In directional serial verb constructions, they are regularly used to add an additional participant – most commonly a (deictic) goal – to the clause. In other multiple verb constructions, ‘go’ and ‘come’ are used as discourse markers, whose function is to connect two sequential events.

In Section 1, a short introduction to the N‘ng language and its speakers is given. Section 2 presents an overview of the frequency of ‘go’ and ‘come’ in the corpus in general, and of the distribution of these verbs in three formally and functionally different constructions. The semantic and formal properties of ‘go’ and ‘come’ as full lexical verbs are described in section 2.1, while section 2.2 deals with more grammaticalized uses of these verbs in directional serial verb constructions (2.1.1) and in other multiple verb constructions (2.2.2). Section 3 summarizes the results of the analysis of ‘go’ and ‘come’ in N‘ng at the present stage, and presents some open questions and topics which still need further investigation.

1. The N‘ng language

1.1 Genealogical classification and current situation

N‘ng is the last non-extinct member of the !Ui branch of the Tuu language family (aka “Southern Khoisan”) (cf. Güldemann 2000, Güldemann 2005). Other names that have been used for different varieties of N‘ng are N‘uu, N‘huki, or #Khomani.

\* I would like to thank Philippe Bourdin, Tom Güldemann, and Alena Witzlack-Makarevich for providing valuable comments on an earlier version of this paper.

\(1\) The data for this paper was collected between 2007 and 2010 during several field trips for the language documentation project “A text documentation of N‘uu”, which is funded by the Endangered Language Documentation Programme (ELDP). Until now, the project members (Tom Güldemann, Martina Ernszt, Sven Siegmund, and Alena-Witzlack-Makarevich) have recorded a corpus of approximately 50 hours of spoken language, and translated and annotated approximately 90,000 words. The great majority of the collected material is in N‘ng, but it includes also some texts which are partly or exclusively in Afrikaans. The focus of the corpus is on naturally spoken language, e.g. coherent texts like folk tales, personal stories, and conversations. Despite its small number of speakers, N‘ng displays considerable inter-speaker variation. The current speakers of N‘ng belong to at least three, maybe even four different dialectal groups, some of which are only represented by a single speaker today. Dialectal and/or idiolectal variation is found in all domains of the language, e.g. in phonology, the lexicon, grammar, and discourse. It is one of the main aims of the documentation project to document, describe, and analyze this idiolectal and dialectal variation within N‘ng.
Ng is a moribund language, which is currently spoken by less than 10 elderly individuals in the Northern Cape Province of the Republic of South Africa. All speakers use Afrikaans as their language of daily communication, and some also speak Nama or Tswana. Even though the speakers have not been actively using Ng for decades, most of them are surprisingly fluent: They are able to narrate stories, have conversations, or translate words and sentences without major problems.

1.2 Some typological properties of Ng

Ng is a mainly isolating-analytic language with strict S V O constituent order. Subjects and direct objects do not show any flagging (e.g. case marking or adpositions) and are differentiated by their relative position with respect to the verb only. Case marking is used for indirect objects, which bear a dative suffix and precede the direct object. Peripheral arguments and adjuncts follow all other constituents and are marked by a very limited set of prepositions, the comitative-instrumental marker n/a ‘with’, the simitative marker f/a ‘like’, and a multipurpose oblique marker ng, which is used for a wide range of semantic roles, like location, goal, source, time, or cause. Arguments are frequently left unexpressed if they are recoverable from the linguistic or extra-linguistic context. Tense-aspect-mood categories are mainly expressed by prverbal particles, but also by serial verb constructions.

2. ‘go’ and ‘come’ in the Ng corpus

An analysis of the corpus, which currently comprises approximately 90,000 transcribed and translated words, shows that the directional deictic verbs f/a / f/ae ‘go’ and see / sii / saa ‘come’ are the most common verbs in the corpus. In general, ‘go’ and ‘come’ are only outnumbered by grammatical morphemes such as TAM markers and the plural suffix, and pronouns.

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Lexeme</th>
<th>Number of tokens in corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘go’</td>
<td>f/a; f/ae</td>
<td>1162</td>
</tr>
<tr>
<td>‘come’</td>
<td>see; saa; sii</td>
<td>974</td>
</tr>
<tr>
<td>‘take’</td>
<td>i/j</td>
<td>927</td>
</tr>
<tr>
<td>‘do, make’</td>
<td>kx’uu</td>
<td>689</td>
</tr>
<tr>
<td>‘see’</td>
<td>n/aa; n/ll</td>
<td>583</td>
</tr>
<tr>
<td>‘eat’</td>
<td>aam; iin</td>
<td>529</td>
</tr>
<tr>
<td>‘go in’ / ‘put in’</td>
<td>f/ee</td>
<td>438</td>
</tr>
</tbody>
</table>

Table 1. The most frequent verbs in the Ng corpus

Table 1 shows that some verbs in Ng have two, in the case of ‘come’ even three forms, which differ in the quality of their stem vowel. The exact distribution of the forms is not yet entirely clear, but the choice seems to be mainly influenced by the tense, aspect, and mood of the clause, and by the presence or absence of one of the three homophonous verb suffixes -a (–a ‘2SG.IMP’, –a ‘BEN’, and –a ‘PFV’).

‘go’ and ‘come’ are often used as the single and main verb of the clause, but they also occur frequently in combination with another verb in the same clause. Specifically, ‘go’ and ‘come’ occur in three main types of constructions. They can be:

- full lexical verbs, i.e. main verbs in the clause;
- the second and minor verb in a serial verb construction (SVC);
• the first verb in a monoclausal multiple verb construction (MMVC).2

The different constructions will be discussed in detail below. Table 2 provides the approximate quantitative distribution of the three constructions in which the verb ‘come’ is used in the corpus.3 The distribution of ‘go’ is similar to that of ‘come’.

Table 2. Number of tokens of ‘come’ in the three different major constructions

<table>
<thead>
<tr>
<th>Construction</th>
<th>Number of tokens of ‘come’ in the corpus</th>
</tr>
</thead>
<tbody>
<tr>
<td>full lexical verb (excluding imperatives)</td>
<td>ca. 350</td>
</tr>
<tr>
<td>minor verb in directional SVC</td>
<td>ca. 100</td>
</tr>
<tr>
<td>first verb in a MMVC</td>
<td>ca. 320</td>
</tr>
</tbody>
</table>

It has to be noted that the above numbers include texts as well as elicitation sessions. Elicitation sessions have skewed the distribution in favour of ‘come’ as a full verb and as a minor verb in an SVC. In naturally spoken language (e.g. in texts), the use of ‘come’ as the first verb in an MMVC is in fact more common than all other uses, including the use of ‘come’ as a full verb. The formal and functional properties of the three different constructions are described in the following sections.

2.1 ‘go’ and ‘come’ as full lexical verbs

As full lexical verbs, ‘go’ and ‘come’ can be used both intransitively and transitively. If used intransitively, ‘go’ expresses a motion event directed away from a deictic centre (‘go away’, (1)), whereas ‘come’ expresses a motion event directed towards a deictic centre (‘come’, (2)).

(1) ha ’aa
    3SG  go
    ‘He goes away.’

(2) ha saa
    3SG  come
    ‘He comes.’

If used transitively, the direct object expresses the goal of the motion event (‘go to’, (3), and ‘come to’, (4)).

(3) kinn goo e ’aa ʃkhaa
    3PL  again  go  farm
    ‘They go to the farm again.’

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2 The term “monoclausal multiple verb construction” is used here as a convenient term to cover all monoclausal constructions with more than one lexical verb stem. It thus includes what would be typically regarded as prototypical serial verb constructions, verbal compounds, as well as other kinds of clauses with more than one lexical verb stem. Whether it is legitimate to distinguish serial verb constructions from other multiple verb constructions is a controversial topic that I will not go into here.

3 The table excludes approximately 100 tokens in the corpus, where the function of ‘come’ could not yet be determined clearly, and another approximately 100 tokens where ‘come’ is used in the imperative. Imperatives of ‘go’ and ‘come’ can occur in any of the three constructions, but it is possible that they have additional functions, which are not covered by any of these constructions. Imperatives still need further investigation and are not touched upon in this article.
2.2 ‘go’ and ‘come’ in monoclausal multiple verb constructions

The fact that deictic directional verbs are often subject to grammaticalization is well known. Heine & Kuteva (2002) list a total of nine different common grammaticalization paths for verbs meaning ‘come’ and ‘come to’, and ten common grammaticalization paths for verbs meaning ‘go’ and ‘go to’ in the languages of the world. Common grammaticalized functions of ‘go’ and ‘come’ include ventive, itive, sequentiality, hortative, benefactive, future, and purpose.

In N|ng, it is possible that the verbs ‘come’ and ‘go’ have been the source for some markers that are now fully grammaticalized, like the irrealis marker si (from sii ‘come’), or the distal demonstrative n\ delayed ‘that one over there’ (from l\a ‘go’). These will not be discussed here. Instead, the focus will be on MMVCs, e.g. constructions where ‘go’ and ‘come’ have retained their verbal status and are combined with another verb in the same clause. In these constructions, the lexical meaning of ‘go’ or ‘come’ is still transparent synchronically, but it can be accompanied by other, only partly grammaticalized meanings or functions. These constructions are:

- directional SVCs, where the minor verb ‘go’ or ‘come’ follows the major verb, and where no other element can be inserted between the two verbs. In this construction, ‘go’ and ‘come’ are part of a restricted set of directional verbs which can be used to add an additional participant – in the case of ‘go’ and ‘come’ a deictically specified goal – to the clause.
- other MMVCs, where ‘go’ or ‘come’ precedes another verb, and where the occurrence of a pronoun or a linking morpheme between the two verbs is possible. In this construction, the verbs ‘go’ and ‘come’ normally retain their lexical meaning, but they can also have the (additional or exclusive) function of marking sequentiality of two events.

2.2.1 ‘go’ and ‘come’ in directional serial verb constructions

SVCs play a crucial role in N|ng grammar, as they are an important means to add additional participants to a clause. N|ng has classical asymmetrical SVCs as defined and described in Aikhenvald (2006), which “may consist of one verb from a relatively large, open, or otherwise unrestricted class [the so-called “major verb”; ME], and another from a semantically or grammatically restricted (or closed) class [the so-called “minor verb”; ME]” (Aikhenvald 2006: 21). The most common semantic type of SVC in N|ng is the directional SVC, where a full, major verb – often a manner-of-motion verb (e.g. ‘walk’, ‘run’), or a verb that expresses manner of caused motion (e.g. ‘pour’, ‘throw’) – is followed directly by a second, minor verb that expresses directional motion (e.g. ‘go in’, ‘descend’) or directional caused motion (e.g. ‘put in’, ‘remove’).

Example (5) shows the combination of a manner-of-motion verb (‘run’) with a verb of directional motion (‘enter’) in an SVC.

(5) ng l\ae l\ee n\ng
1SG run go.in house
‘I run into the house.’
Example (6) shows the combination of a manner-of-caused-motion verb (‘throw’) with a directional caused-motion verb (‘put in’).

(6) ng ḗaqbe ṭee lao ng ḗqoa
1SG throw put.in stone OBL pot

‘I throw the stone into the pot.’

The directional deictic verbs ‘go’ and ‘come’ are frequently used as minor verbs in this type of serial verb construction. The major functions of ‘come’ and ‘go’ as minor verbs are:

- ‘come’ ventive (cf. (11), (15))
- ‘go’ itive (cf. (12) to (14))

The following examples show the combination of ‘come’ and ‘go’ with an intransitive manner-of-motion verb. Just like the verbs ‘come’ and ‘go’ themselves, the resulting SVC can be either intransitive ((7), (8)), or transitive, with a direct object expressing the goal of the motion event (9):

(7) ḗxaɪ a ko ṭee saa
young.man this other run come
‘The other young man comes running.’

(8) ṭı si ṭee ṭaa
IPL.EX run go
‘We run away.’

(9) ha ḗdyaqnn ṭı ṭaa ḗhuun-si ṭı ṭıng
3SG walk go Boer-SG house
‘He walks to the Boer’s house.’

Examples (10) and (11) show the combination of ‘go’ and ‘come’ with a transitive manner-of-caused-motion verb (‘throw’). In such a combination, the resulting SVC can be either transitive (10) or ditransitive (11). In this construction, the direct object can only express the patient. The goal of the motion event, if overtly expressed, has now to be encoded as an oblique object, which is marked by the multi-purpose oblique preposition ḗng, as in (11):

(10) ha ḗaqbe ṭı ṭaa ḗqoro-si
3SG throw go wild.gherkin-SG
‘He throws the wild gherkin away.’

(11) ḗaqbe saa ḗqoro-si ṭı ṭıng ṭı ṭıng
throw come.2SG.IMP wild.gherkin-SG OBL 1SG.OBL
‘Throw the wild gherkin to(wards) me!’

Directional minor motion verbs can be used productively, but sometimes the resulting meaning of the SVC is lexicalized to some extent. The verbs ḗ’oa ( DEALINGS dialect) and ḗ’ama (other dialects) alone mean ‘buy’, and the oblique argument specifies the ‘source’, e.g. the seller, as in (12). When ‘buy’ is combined with the minor verb ‘go’, the resulting SVC has the meaning ‘sell’, and the oblique argument now expresses the goal, or the recipient, e.g. the buyer, as in (13).4

4 Note that ḗ’ama ‘buy is a loan word from Khoekhoe ( ḗ’ama ‘buy’). In Khoekhoe, ‘sell’ is expressed by ḗ’ama-xu ‘buy-let.go’.
The verb *au* (alternative form *uu*) cannot be used as an independent verb on its own, but it can appear in directional SVCs both in the minor verb slot, with the meaning ‘up’ (note that then only the form *uu* is common), or in the major verb slot with the minor verbs ‘come’ and ‘go’. When the major verb *au / uu* is combined with a minor verb ‘go’ or ‘come’, the resulting SVC has the meaning ‘take (away) to’ ((14), (15)) or ‘bring’ ((16), (17)), respectively.

Example (17) is especially interesting because it shows that the minor verb ‘come’ can be used not only with an oblique argument (which is most commonly an inanimate goal), but also with a dative object, which represents a beneficiary or recipient. The same construction is possible with ‘go’, as in (18) and (19), although examples of this type are rare in the corpus.

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5 It is thus possible that *au / uu* originally was a full verb meaning ‘take up’. Alternatively, it might be a loan word from Khoekhoe *uu* ‘take possession’.
ON THE DIFFERENT USES OF THE DEICTIC DIRECTIONAL VERBS ‘GO’ AND ‘COME’ IN Nulling

2.2.2 ‘go’ and ‘come’ as the first verb in monoclausal multiple verb constructions

The most common use of the verbs ‘go’ and ‘come’ in naturally spoken language is their use as the first verb in an MMVC. Basically, there are three different variants of this construction:

- S go/come S(copy-pro) V ...
- S go/come ng V ...
- S go/come V ...

The most common variant is the “S go/come S(copy-pro) V ...” construction, which is exemplified in (20). The example consists of two clauses, which each contains an MMVC with ‘go’ and ‘come’, respectively.

(20) sa-u ][aa si ]aa ]uu-ke, si see si ]qain
1PL.EX.? -? go 1PL.EX cut reed-PL 1PL.EX come 1PL.EX pin
“We go and cut reed, we come and pin down [the animal hides to the ground with the reed pegs]."

There are various arguments for a monoclausal analysis of this construction. First, MMVCs in general differ from a chain of two juxtaposed clauses in intonation and by the absence of a pause. Furthermore, in the N[ua dialect of N[ng, there is a constraint on the form of the pronoun preceding the second verb. In general, the subject of a clause in N[ng can be either a noun, a pronoun, or it can be left unexpressed. Pronouns come in various complex forms, which can be analyzed as a combination of a simple, basic pronoun and a suffix (e.g. when combined with a suffix -a, 1SG ng + -a > na, 1PL.IN i + -a > dya, 1PL.EX si + -a > sa, 2PL u + -a > ba, 3H.SG ku + -a > kua). Subject pronouns are frequently marked by these suffixes, whose exact function, however, is still unclear. In MMVCs with ‘go’ or ‘come’ as the first verb, the nominal element that precedes the first verb (the actual subject) can be either a noun or a pronoun, and pronouns can be basic or complex, e.g. marked by one or even two suffixes. In contrast, in the N[ua dialect the nominal element that precedes the second verb can only be a ‘copy pronoun’, e.g. an unsuffixed, basic pronoun, which agrees in person and number with the actual subject. Full nouns and complex pronouns are not possible in this position (cf. (21)).

(21) ba si saa u (*ba) ]'haun ki a
u-a si saa u (*u-a) ]'haun ki a
2PL-? IRR come 2PL (*2PL-?) sit.down.PL place this
“You must come and sit down here!”

Further evidence for a monoclausal analysis of the MMVC comes from verbs with stem vowel change. As already mentioned above N[ng has a small set of verbs which have two forms which differ from each other with respect to the stem vowel (e.g. ks’aan or ks’iin ‘drink’; n[aa or n[ii ‘see’). While the distribution of the different forms is not entirely clear

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6 S = subject, S(copy-pro) = subject copy pronoun, e.g. a basic pronoun which agrees in person and number with the subject, V = verb
7 In the other dialects, it is possible to have a complex pronoun, e.g. a pronoun marked with a suffix, between ‘go’ or ‘come’ and the following verb. The functions of the different suffixes on subjects are not well understood yet. However, the data collected so far indicates that the use of the subject suffixes shows considerable variation in the different dialects of N[ng.
yet, tense, aspect, and/or mood seems to be the crucial factor\(^8\), as examples (22) to (24) show:

(22) na kx’iin
1SG.? drink
‘I drink’ (?) or ‘I am drinking’

(23) na kx’aan
1SG.? drink
‘I drank’ (?) or ‘I have drunk’

(24) na si kx’aan
1SG.? IRR drink
‘I will drink’, or ‘I shall drink’, or ‘I must drink’

If ‘come’ or ‘go’ precedes another verb in the same clause and the verb belongs to this set of verbs with stem vowel change, only the use of the \(aa\)-form (e.g. \(kx’aa\), \(n/aa\)) is possible, regardless of the TAM of the clause. Thus, an example like (25) would have to be interpreted as an MMVC, whereas example (26) can only be interpreted as two juxtaposed clauses: 9

(25) single clause, MMVC
na saa ng kx’aan (*kx’iin)
1SG.? come 1SG drink
‘I come and drink.’

(26) two clauses, juxtaposed
na saa, ng kx’iin
1SG.? come 1SG drink
‘I come, I drink.’

\(\text{but not: ‘I come and drink.’}\)

The following examples show the other two variants of MMVCs with ‘go’ and ‘come’ as the first verb: the “\(S\) go/come \(ng\) \(V\)...” construction ((27), (28)), and the “\(S\) go/come \(V\) ...” construction ((29), (30)). Just like the ‘copy pronoun construction’, these constructions normally can be distinguished from two juxtaposed clauses by intonation and the absence of a pause, and by the choice of the \(aa\)-form for verbs with stem vowel change. It should be noted that only one speaker, who is the only speaker of the \("\text{Au N} ng\) dialect, uses the construction with the linking marker \(ng\) regularly.\(^{10}\) The exact morphological and functional status of the linking element \(ng\) is not yet entirely clear and needs further investigation. In this article, \(ng\) will be provisionally glossed ‘?and’. It should be emphasized, however, that \(ng\) is not a general coordinative marker, but is restricted to MMVCs with the deictic directional verbs ‘go’ and ‘come’ as the first verb.\(^{11}\)

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\(^8\) There is some evidence suggesting that the form with the stem vowel \(aa\) is a basic, default form which is generally unmarked for TAM, whereas the other form might be a kind of imperfective, but this topic still needs to be investigated in more detail.

\(^9\) Examples (25) and (26) are examples constructed by the author to demonstrate the difference between the two constructions. All other examples in this article come from the corpus and thus from the \(N\)ng speakers themselves.

\(^{10}\) Note furthermore that in very careful pronunciation or slow repetition of a given clause by the speaker, this marker \(ng\) is almost regularly replaced by a copy pronoun.

\(^{11}\) A very similar marker is found in the extinct language \(X\)am, the closest known relative of \(N\)ng. \(X\)am has a suffix -ng on the verbs ‘go’ and ‘come’, which gives the verbs the meaning ‘go,and’ and ‘come.and’, respectively (Tom Güldemann, p.c.; cf. also Güldemann (forthcoming)).
ON THE DIFFERENT USES OF THE DEICTIC DIRECTIONAL VERBS ‘GO’ AND ‘COME’ IN N\(^{\text{123}}\)NG

(27) S come ng V …
    ha-u see ng ku: …
    3SG-? come ?and say
    ‘Then he comes and says: …’

(28) S go ng V…
    si \(\_\)u \(\_\)ae ng ji j'aun
    1PL.EX NEG go ?and take soil
    ‘We don’t go and fetch soil.’

(29) S come V …
    si sii ji u
    1PL.EX come take 2PL
    ‘We come and fetch you.’

(30) S go V …
    ja, a si \(\_\)ae n|aa n|ng-\(\_\)ee
    yes, CONN 1PL.EX go see San-people
    ‘Yes, then we go and see San people.’

In certain contexts, ‘go’ and ‘come’ can also point to purposive or intentional motion (‘go/come in order to …’, or ‘go/come with the intention to …’), as in (31) and (32):

(31) ng \(\_\)aa ng khaa tya tenk-si ng khaa
    1SG go 1SG fill that tank-SG OBL water
    ‘I go (away) and fill that tank with water.’
    or better: ‘I go (away) (with the intention) to fill that tank with water.’

(32) j'a si uu khaa
    go 1PL.EX draw water
    ‘We go (away) and draw water.’
    or better: ‘We go (away) (with the intention) to draw water.’

In (33), only an intentional reading is possible, because from the context of the story it is clear that the visit which was intended had not yet taken place at the time when the utterance was made:

(33) ng sii ng n|uu oom Jan
    1SG come 1SG visit uncle personal.name
    ‘I come (with the intention) to visit uncle Jan.’
    but not: ‘I come and visit uncle Jan.’

The fact that the use as first verb in an MMVC is the most common use of the verbs ‘go’ and ‘come’ in N\(^{\text{123}}\)ng of course raises the question why this construction is so common and what the function of the deictic directional verbs in this construction is. The analysis of the corpus shows that in many instances ‘go’ and ‘come’ as first verb in an MMVC can be interpreted as what has been called “sequential markers” by Bourdin (2008)\(^{12}\), which he describes as follows:

\(^{12}\) A range of similar, but not necessarily identical markers have been described in the literature under various names, like “discourse connectors” (Ebert 2003), “consecutive markers” (Heine & Kuteva 2002), or “new-event markers” (Heine 2000).
Verbs meaning ‘go’ or ‘come’ are

[...] used to describe, not motion in space, but rather motion in time from one event to the next. [...] It is reasonable to conclude that we are dealing here with a specific grammaticalization pathway. The source meaning of the markers involved is ‘motion in space oriented with respect to the speaker’s location’, for short directional deixis. In turn, the target meaning is ‘textual sequentially’, i.e. the temporal sequencing of an event B with respect to a previous state of affairs A. Typically, though not necessarily, sequential markers are found in narratives, where their function is to propel the story forward, most commonly by specifying B as being temporally contiguous with A. (Bourdin 2008: 38)

In some languages, ‘come’ or ‘go’ have developed into highly grammaticalized markers, which have lost their semantic component of deictic motion completely (cf. Bourdin 2008: 44ff.). This is, however, not the case with N[ng sequential markers. In most instances, the semantic component of deictic motion is not completely bleached out but still transparent, and the verbs ‘go’ and ‘come’ as the first verb in an MMVC are ambiguous in a way that they can be interpreted as either describing an actual deictic motion event or as a sequential marker (or both at the same time). This applies, for example, to examples (20), (27), (29), and (30) above. However, there are also examples in the N[ng corpus where the context makes it very unlikely that a motion event is actually taking place. In both (34) and (35), the subject is already at the place where the event of speaking takes place. Therefore, an interpretation of the verbs ‘go’ and ‘come’ as describing an actual motion event is very unlikely in these examples, and thus, the only function of the deictic directional verbs is that of marking sequentiality.

(34) a ha ||'aa ha ku ng n[ng ...
CONN 3SG go 3SG say OBL 1SG.OBL
‘Then he says to me …’
but not: ‘Then he goes and says to me …’

(35) si saa ng ku ...
1PL.EX come ?and say
‘Then we say …’
but not: ‘We come and say …’

A common characteristic of motion verbs in some other languages is the fact that the verbs are often used “anaphorically” (cf. Ebert 1987: 53f.), i.e. “a predicate describing motion is followed by a verb describing the same motion, referring back to the same event” (Heine 2000: 278). In the N[ng corpus, this phenomenon is attested for ‘go’ and ‘come’, too, as examples (36) and (37) show.

(36) ||'ae loo, ha ||'aa ||'aan'a ||huun
3SG go hole 3SG go search dog
‘He goes to the hole, he (goes and) looks for the dog.’

(37) ||huun-si saa, ha saa n[li, n[li, n[li, ha saa n[li'a
Boer-SG come 3SG come ride ride ride 3SG come stand
‘The Boer comes, he comes riding, riding, riding, he (comes and) stops.’

It should be noted that such examples are not very common compared to other, non-iterative uses of ‘go’ and ‘come’ in the corpus. However, it is possible that the iterative
construction attests an intermediate stage on the grammaticalization path of ‘go’ and ‘come’ into sequential markers.13

3. Summary and outlook

The deictic directional verbs ‘go’ and ‘come’ have developed different functions in N\|ng. In directional SVCs, they normally have an iterative or ventive meaning, and they can be used to add an additional participant to the clause, which is in most instances an (inanimate) locational goal. As the first verb in MMVCs, ‘go’ and ‘come’ often retain their lexical meaning, but they also function as discourse connectors, or, more specifically, sequential markers that connect one event to the next.

When describing “new event markers” in Kxoe, which are similar but not identical to the sequential markers in N\|ng, Heine (2000: 208) notes that “two verbs expressing contrastive deictic motion give rise to essentially one and the same marker”. In general, ‘come’ and ‘go’ in MMVCs are not fully grammaticalized markers but are still semantically transparent and retain their lexical meaning, which is accompanied by a more grammaticalized function. However, there are examples in the corpus where ‘come’ and ‘go’ in MMVCs have been completely grammaticalized, i.e. where the context precludes their being interpreted as referring to motion in space. In these instances, the choice of one or the other verb seems to be arbitrary. Further research is necessary on this score.

Another topic that requires further research is the distribution of the three formally different variants of the construction with ‘go’ and ‘come’ as first verb in an MMVC. So far, it has not been possible to detect any difference in meaning. A closer investigation is necessary to see if there are any significant functional differences between the three different variants, or if we are just dealing with three formally different, but semantically identical stages in the grammaticalization process.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>BEN</td>
<td>benefactive</td>
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<td>CONN</td>
<td>connective</td>
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<td>irrealis</td>
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<td>NEG</td>
<td>negation</td>
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<td>OBL</td>
<td>multi-purpose oblique</td>
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<td>PFV</td>
<td>perfective</td>
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<td>singular</td>
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<td>1/2/3</td>
<td>1st/2nd/3rd person</td>
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13 Such an iterative grammaticalization scenario has been described for Kxoe “new-event markers” by Heine (2000). Cf. also Bourdin (2008: 45).
References


Directionality in Berber: Orientational clitics in Tashelhit and related varieties

Axel FLEISCH

Abstract

Many Berber languages use – among other devices – a dichotomous pair of clitics for the expression of orientation and direction. The clitic $=d(d)$ expresses proximal, ventive or centripetal notions; the clitic $=n$ distal, itive or centrifugal notions. These clitics have been the specific object of earlier studies (Bentolila 1969a/b, Mettouchi 1997, El Mountassir 2002) and are also typically addressed in more general descriptive studies of Berber varieties. In most of these accounts, the distinction between ‘toward’ and ‘away from’ is regarded as the core function of these clitics. They have been semantically extended and cover a broader range of semantic senses as well. Two important semantic areas that are evoked by the use of $=d(d)$ and $=n$ are: (1) reaching an endpoint, or crossing a threshold and (2) emergence, appearance and visibility. The present text illustrates these different senses in what is deemed that subjectification mechanisms may be at work and responsible for the kinds of semantic change observed in the case of the Berber orientational clitics.

1. Introduction

In many Berber varieties, the domain of directionality is systematically addressed by two orientational clitics, $=d(d)$ and $=n$. The clitic $=d(d)$ expresses proximity, ventive or centripetal notions; the clitic $=n$ distal, itive or centrifugal notions.

Most scholars working on Berber are unanimous with regard to spatial deixis, and in particular directionality, as the core function/meaning of the Berber clitics $=d(d)$ and $=n$. The functions of the orientational clitics, in the French tradition often referred to as particules d’orientation, are specifically addressed in a number of publications dealing with varieties from southern and central Morocco (Bentolila 1969a/b, Tamazight [Aït Seghrouchen]; El Mountassir 2000, Tashelhit) as well as Kabyle varieties used mainly in northern Algeria (Galand 1959, Mettouchi 1997). In addition to these sources, also authors addressing the topic in the frame of broader grammar descriptions (for Taqbaylit [Kabyle Berber] Chaker 1983 and Naït-Zerrad 2001; for Tuareg Heath 2005 [Tamashek] and Galand 2002 [Tamajaq]) take this as the central starting point. Basically, they rely on the distinction between ‘toward’ and ‘away from’ as the semantic core of these clitics.

Bentolila (1969a/b) discusses directionality and certain functions beyond spatial deixis in his study of the orientational clitics in Berber. Mettouchi (1997) and El Mountassir (2002) are two more recent studies of their functions many of which go clearly beyond spatial deixis and the expression of movement toward versus away from a contextually determined reference point. It has long been observed that there is an important asymmetry in terms of frequency, the proximal clitic occurring much more often than the distal clitic (Galand 1959). Moreover, their respective semantic ranges are rather different. In order to gain a fuller understanding of these properties, a more detailed picture of their functions is required. In the following, section 2 illustrates briefly some morphosyntactic properties of both clitics, their alleged
diachronic primary senses and the frequency asymmetry. Two separate sections 3 and 4 deal with two important semantic areas that are evoked by the use of =d(d) or =nn. These are: (a) reaching an endpoint, or crossing a threshold (section 3); and (b) emergence, appearance and visibility (section 4). The present text illustrates these different senses in what is deemed a diachronically plausible sequence and supports El Mountassir’s (2002) cautious suggestion that subjectification mechanisms may be at work and responsible for the kinds of semantic change observed in the case of the Berber orientational clitics. The latter point is elaborated in more detail in section 5, followed by a brief summary and outlook (section 6).

2. Typological features of Berber and the clitics =d(d) and =nn

It is often claimed for Berber varieties that their basic word order is verb-initial (e.g. Guerssel and Hale 1987). It is certainly true that the constituent order VSO is common in these languages, but at the same time there is a fair amount of word order flexibility (cf. Mettouchi and Fleisch 2010). As shown to be common in verb-initial languages by Payne (1995), the subject often precedes the verb in Tashelhit and related varieties. Also, Berber varieties do not necessarily require an overt (lexical or pronominal) subject other than subject indexation on the verb, which further obfuscates the status of core arguments and their position in the sentence. For some varieties, it has been argued that Berber languages should rather be considered discourse-configurational than verb-initial (Mettouchi 2005).

Irrespective of this controversy, typological features that appear to accompany V-initial word order apply to the Berber varieties under study here fairly strictly. They have prepositions, adjectives follow the nouns they modify, and so do modifying genitives. Many Berber varieties including Tashelhit and closely related varieties show the use of a marked nominative case-marking strategy. This is relevant with regard to the word order issue, since nominative marking applies to the subject of a sentence only when it follows the verb.

While subjects can occur in pre-verbal position, the fronting of objects requires the use of a pronominal object clitic following the finite verb. Two sets of person-, number- and gender-specific object clitics exist, one for direct and one for indirect objects. If the verb occurs with certain preverbal morphemes, the object clitics attach to these, not the verb. These morphemes include the negation marker ur, the question marker is, the preverb ar with imperfective aspect, the irrealis marker ad (or combinations of these), as well as a number of other elements (e.g. the relative marker).

These factors conditioning the position of object clitics also apply to the two orientational clitics =d(d) and =nn. They follow the finite verb, or one of the preverbal particles is, ar, or ur. In case of co-occurrence with one or two object clitics, the orientational clitic occurs last in the sequence of clitics.

Taqbaylit (Mettouchi & Fleisch 2010: 202)

(1)  ad =as =tn =idd tfk tæqict
    IRR 3S nominate 3pm accus =prox 3sf give f,s NOM girl

‘The girl will give them to him/her.’

2.1 Orientational clitics =d(d) and =nn

While this paper is mainly concerned with the semantics of the orientational clitics (including more grammatically entrenched and discourse-pragmatic usages) certain formal properties need to be borne in mind. The orientational clitics differ slightly in shape between varieties. Tuareg varieties show the fullest segmental shapes, =kdd and =tn (and morpho-phonological variants thereof; Heath 2005: 596). In addition to cross-varietal differences, the clitics show...
morpho-phonological alternations within varieties. Even though the exact mechanisms (which are often not described in much detail in the available reference material) do not need to concern us here, it still needs to be mentioned because the different variants appear in the examples later in the text.

As already mentioned earlier, more important for our concern are the frequency asymmetries between both clitics, \(=d(d)\) ‘proximal, ventive’; \(=m\) ‘distal, itive’. The ventive/proximal marking device is more common than the itive/distal clitic. This holds true at various levels. In text counts the overall frequency of \(=d(d)\) ‘prox’ is higher. At the same time, this clitic is used with a broader variety of verbs. While many verbs can, but do not have to, be used with one of the clitics, a substantial number of verbs show lexical restrictions. Certain verbs require the use of one of the clitics, and among these verbs there are many which only occur with \(=d(d)\) ‘prox’. A comparable restriction for the itive/distal marker, i.e. verbs allowing or requiring the use of \(=m\), but disallowing proximal \(=d(d)\), is much less common, if it occurs at all. With a view to different Berber varieties, it must be noted that a number of them have the proximal \(=d(d)\), but make hardly any use of the distal clitic. Mettouchi (1997: 2) counted, in an extensive literature corpus of Kabyle Berber, only 12 occurrences of \(=n\), as opposed to approx. 2,000 occurrences of \(=d\) (from an overall number of about 10,000 verbal nuclei). In the eastern Rif variety of Figuig, \(=n\) is shown to occur as a nominal clitic (édétique de l’éloignement, Kossmann 2000: 91), but – in contrast to \(=d\) (cf. Kossmann 2000: 87-90) – not in connection with the verb. For Siwi, Vycichl (2005: 243-244) notes a very restricted use of the clitics in a few lexicalized collocations, again with \(=d\) being more frequent than \(=n\). In the varieties considered in the present study, the distal clitic is more commonly used. Source data from which examples are drawn include evidence quoted from the relevant literature on the topic (in particular Bentolila 1969a/b, Mettouchi 1997, El Mountassir 2002) in addition to some published narratives in Tashelhit (Stroomer 2002) and elicited Tashelhit data.

2.2 Static location and directionality of motion

In Berber varieties, the combination of orientational clitics with motion verbs that imply a direction is common, and the clitics may serve to reverse the vector of the motion event. The motion verb azzl ‘run’ specifies manner lexically, in addition to motion. A default path is understood to lead away from some reference point or deictic centre. This interpretation can be overturned by the use of the proximal clitic.

Tashelhit (elicited from Hassan Akioud, July 2007)

\[
(2) \quad \text{amxar i-uzzl}=d \quad s=\text{tdart i-kšm}=d
\]

\[
\text{ACC.thief} \quad 3\text{sm-run.PFV=PROX to=f.s.NOM.room} \quad 3\text{sm-enter.PFV=PROX}
\]

\text{‘the thief ran into the room’ (lit.: ran to the room and entered)}

A default reading that results from the use of \(=d\) following the inflected verb azzl ‘he ran’ in (2) would imply the deictic centre to be the room representing the ground of the motion scenario (e.g. by assuming the speaker is in that room). The implicit understanding of a directed motion AWAY FROM is thus reversed.

The important question with regard to a more comprehensive account of the orientational clitics is whether this represents a core function of these clitics that can also be assumed to be diachronically primary. Such an assumption is not at all implausible in terms of our knowledge about spatial terms and their grammaticalization tendencies. Since there are many other uses (as will be illustrated in the following sections), possible objections to this assumption should still be considered.
One possible counterproposal might be to assume that the proximal/distal distinction expressed by \( =d \) and \( =n \) does not originally refer to direction, but rather to more static location in some varieties. Certain pieces of evidence supporting such a view are the following.

Demonstrative pronouns in Tashelhit like \textit{xtid} ‘this (one here)’ \textit{xtinn} ‘that (one there)’, \textit{wid} ‘these (ones here)’, and \textit{winn} ‘those (ones there)’ contain morphological segments that are cognate with the orientational clitics expressing a difference in terms of distance: ‘here’ versus ‘there’. While they refer to location and distance, they do not necessarily imply any notion of directionality. In a similar vein, the Tashelhit demonstrative clitics \( =ad \) and \( =ann \) accompany full lexical nouns as in \textit{argaz} = \textit{ad} ‘this man’ or \textit{argaz} = \textit{ann} ‘that man’ (Mettouchi 1997). Again, these demonstrative clitics (related to the respective morphological segments in the demonstrative pronouns mentioned before) do not imply directionality, but a distinction in terms of relative distance. The same is true for the similar (Aït Seghrouchen) Tamazight clitic \( =inn \) as in \textit{aryaz} = \textit{inn} ‘that man (there)’ (Bentolila 1969a: 85) which is reminiscent of the distal clitic of Tashelhit, although Tashelhit uses \( =inn \) as an anaphoric clitic (“the aforementioned”).

For these reasons, it seems quite plausible that a PROXIMITY/DISTANCE-denoting function marks the conceptual point of departure from which the meanings of these clitics have originated. The pronominal forms are probably a later innovation resulting from a grammaticalization including the suffixation of some clitic element (identical with or similar to \( =d =dd \) and \( =nn \)). These could in principle have had a more static location meaning, serving as demonstrative clitics expressing distance rather than directionality. Directional interpretations may have resulted from a combination of the motion semantics inherent in lexical verbs in combination with the proximal/distal distinction expressed by these clitics.

In any case, directionality semantics do not fall out fully systematically, in other words they are not predictable as compositional meaning of such verb-clitic combinations. Several observations point at ‘directionality’ as a relevant semantic domain (even if possibly not ultimately primary) which requires to be kept separate from ‘distance’. The following four points are relevant in this regard.

(a) The verbal clitics are of simpler shape, \( =d \) or \( =dd \), and \( =nn \). All of the nominal morphemes contain these segments as part of more complex morphemes (cf. \textit{xtid}, \textit{winn}, \( =ad \), \( =inn \), etc.)

(b) Since we do not know the exact history of, and relation between, the verbal and the demonstrative/adnominal clitics, it is perhaps plausible that a sense which is currently (arguably) the core sense of either should be assumed as the diachronic point of departure for the other, but the direction of this development is not immediately evident. This leaves the notions of ‘distance’ and ‘direction’ as equally possible candidates for the moment.

(c) In connection with verbs, the meaning of the clitics is almost never just that of spatial distance.\(^1\) They do not mean ‘to do something here’ or ‘to do something there’, but ‘towards’ or ‘away from’, plus a number of meanings derived from the latter. If a remoteness distinction was the primary meaning or function of these elements in the verbal domain, the almost complete shift to ‘directionality’ (and then other senses based on this) which one would then have to assume is remarkable, and might be taken as at

\(^1\) Going through the available earlier work, virtually the only example I found is Tamazight \textit{zix} = \textit{nn} \textit{a}ji ‘I milked (milk) there’ (Bentolila 1969: 98) as an example for a plain locative use of an orientational clitic in the verb phrase. This is extremely rare, and interestingly seems to be restricted to distal \( =nn \).
least weak evidence against the hypothesis that ‘distance’ was once at the semantic core of the verbal clitics.

(d) In virtually all Berber varieties that have these clitics, they cannot be used with certain verbs. These typically include the so-called stative verbs (typically property-denoting verbs which came into being through a resultative construction) which do not imply any kind of trajectory. While these considerations including lexical semantic properties of verbs as a relevant feature will be dealt with in some more detail later (cf. section 3.1), it should be noted that this co-occurrence constraint is a likely result if one assumes directionality (but not distance) as a core property of the orientational clitics.

(e) Overall, the use of the clitics in connection with verbs is more frequent and grammatically-entrenched than the use of the nominal clitics or locative adverbs. While the nominal clitics simply add their basic meaning to the respective noun phrase, in the case of the verbs, we find lexical co-occurrence restrictions, systematic interaction with grammatical aspect, etc. in addition to the relatively productive use (‘hither’/‘thither’) with a great number of verbs. Again, this is not necessarily evidence that these morphemes originated as verbal clitics. They may very well have originated as adnominal clitics, but these would then have to be assumed to be of minor significance.

While the adnominal clitics show only in a small number of pronominal elements, the verbal clitics became a central component in the construal of situations expressed by verbs in a variety of ways.

In sum, the exact nature of the diachronic relation between the demonstrative and the orientational clitics in the verb phrase is not fully clear. The question whether static location or directionality are diachronically primary can therefore not be conclusively answered. It is safe to state, however, that at present, the directional use of these clitics is the most common one in the verbal domain. In the following, some relevant properties that should be noted before addressing further semantic extensions based on the directional use of the orientational clitics are outlined.

As pointed out above, the use of the orientational clitics is often affected by specific lexical constraints of verbs in combination with which they are used (Bentolila 1969a: 86; Mettouchi 1997). Some of these constraints appear to be fairly idiosyncratic properties of the respective verbs, but it seems that some co-occurrence phenomena may arise out of more systematic semantic properties of verbs. Although there is no systematic classification of verbs in terms of event types or other possibly relevant features, some plausible groups of verbs seem to show a similar behaviour. Bentolila (1969: 86) states that “dans de nombreux exemples, il est possible de faire alterner \( D = dd \) et \( N = nn \), mais à condition de changer contexte et situation”. Certain verbs denoting typical motion or transfer events show a tendency to allow the use of both orientational clitics with the opposing directional notions ‘hither’ and ‘thither’ (cf. many examples throughout Bentolila 1969 with \( ra \ h \) ‘come/go’).

It appears to be generally true that if a Berber variety has both clitics, they can – minimally – refer to this directional distinction, and can then be used with directed motion or transfer expressions, these thus constituting the most proto-typical case of clitic use. For \( = nn \), it appears that the spatial-directional use is particularly common, and often the only possible interpretation. While the equivalent use of the proximal/ventive clitic \( = dd \) for the expression of direction is also possible, it appears that other uses are more frequent. Non-spatial, non-directional uses predominate in terms of overall frequency. The attested senses in specific contexts that were gleaned from the available data seem to fall into two broader categories. To what extent these correspond to a diachronically motivated, plausible set of semantic extensions can only be hypothesized at this stage, but the following two sections of the article can be read as an account that traces such likely tendencies. The two categories are
characterized by notions of ‘boundary-crossing’ and ‘appearance-emergence’. They will be dealt with subsequently in sections 3 and 4.

3. Directionality and the construal of event boundaries

In addition to expressing the simple directional notion of ‘hither’, a common effect of $=d(d)$ is to establish an event boundary to a situation which would otherwise not necessarily be understood as entailing such an inherent endpoint, or to highlight the crossing of some boundary in the situation denoted by the verb. The occurrence of $=d(d)$ clearly bears on telicity. It affects or interacts with lexical aspecual properties of verbs and with grammatical aspect. The use of $=d(d)$ with directed motion or transfer verbs often changes the semantic character of the Goal constituent (a locative, addressee, or beneficiary) from a targeted to an effectively reached end-point (often expressed in English by the use of different prepositions, e.g. ‘toward’ versus ‘to’).

The three notions, lexical aspect, grammatical aspect and boundary-crossing/-reaching will be addressed in the following subsections.

3.1 Interaction with lexical aspect/verbal semantics

Tashelhit $=d$ adds a boundary notion to many verbs which are not inherently bounded (e.g. awi ‘carry (away)’ > awi=$d$ ‘bring’)

Tashelhit (own data)

(3) isud dud yawi tibratin =iggi n=tabla
3sm.blow.PVF m.NOM.wind 3sm.carry(_away).AOR f.p.ACC.letter on=top of=table
‘The wind blew the letters off the table.’

Tamazight (Aït Seghrrouch, Bentolila 1969b: 97)

(4) masn=dd ittawin ssab ald akid=sn ttmn=ya-n
what.them=PROX carry.IPFV.PTCP reason PURP with=them IPFV.REC.beat-3pm
‘What brought them reason to beat each other?’

Yet, in some cases (e.g. kšm ‘enter’, lkm ‘arrive’) the use of $=d$ does not in itself create a situation boundary; if anything, it highlights a situation boundary that is already evoked by the semantics of the verb. In other cases of inherently telic motion verbs, the use of $=d$ is altogether impossible:

Tashelhit (El Mountassir 2000: 137)

(5a) i-dda Brahim s=tgmmi
3sm-go(_to).PFV Brahim to=f.s.NOM.house
‘Brahim went to the house.’

(5b) *i-dda($=d$/=nn) Brahim
3sm-go(_to).PFV($=PROX$/=DIST) Brahim
‘Brahim went (there).’

The verb ddu ‘go [to GOAL]’ requires an obligatory locative complement. If the clitics were sufficient to meet this requirement, in other words if by using either of the clitics, the example in (5b) could be made acceptable, one might suspect the clitics to behave as pronominals. This, however, is not the case. (In fact, orientational clitics are never used with
Another verb, *ftu* ‘go [away]’, illustrates this further. The root shows a slightly different behaviour than that of *ddu* ‘go [to GOAL]’. When used without an explicit locative complement (referring to the source), it is interpreted as ‘leave’ (which makes it similar to *awi* ‘carry (away)’ in terms of situation boundaries and aktionsart).

Tashelhit (El Mountassir 2000: 137)

(6) i-fta Brahim  
3sm-go(_away).PFV Brahim  
‘Brahim left.’

Contrary to *awi* ‘carry (away)’, it does not allow the use of either orientational clitics in Tashelhit (at least not in this particular sense, see below for more on this verb root).

Summing up, relatively little can be said in terms of systematic interaction between lexical characteristics of specific types of verbs and the occurrence patterns of the clitics. At this point, it appears that there is more lexical idiosyncrasy than systematic interaction. A more systematic large scale event-type classification and investigation of verb types according to these situation types (by situation type meaning a set of situations with some comparable semantic parameter, possibly event boundaries, subject control, or others) may shed further light on this question, but cannot be answered at this stage.

3.2 Interaction with grammatical aspect: imperfective and perfective

The Berber verb system distinguishes the two aspeclual categories ‘perfective’ and ‘imperfective’ (also often referred to as ‘completive’ and ‘incompletive’, more similar to the French designations *accompli* and *inaccompli*). Inflected verbs are grammatically marked for these categories. A third category is the so-called aorist. Verbs in the aorist form are, in principle, aspect-neutral. Their aspectual interpretation is determined contextually, often by preceding verb forms, or other taxis phenomena. An important distinction in Berber varieties is that of the two verb classes, dynamic and stative (see examples 8, 9 and 10, and 7 and 12 respectively). They differ considerably in their morpho-syntactic behaviour, including the use of the inflectional aspect categories as shown in the following table and examples (7) and (8) illustrating the difference for the perfective aspect category.

<table>
<thead>
<tr>
<th></th>
<th>Stative verbs:</th>
<th>Dynamic verbs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective</td>
<td>present state</td>
<td>completed situation</td>
</tr>
<tr>
<td>Imperfective</td>
<td>current process</td>
<td>habitual, continuous</td>
</tr>
</tbody>
</table>

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2 It should be noted, however, that Abdel-Massih (1971: 35) uses exactly this verb root, *ddu* ‘go’, in order to illustrate the use of the orientational clitics (he considers them affixes) in Tamazight. This may simply be an effect of his approach, generative morphology, and his reliance on elicited paradigms. It is not clear how “natural” his data are, and I was not able to find examples containing this verb in Bentolila’s contribution (1969a/b) on Tamazight as used by the Aït Seghrouchen. While neither the use of the clitics in combination with this particular verb root in the case of Abdel-Massih (1971), nor the absence of such examples in Bentolila (1969a/b) is conclusive evidence, it does indicate that there is a considerable degree of micro-variation and idiosyncratic lexicalization.
Tashelhit (El Mountassir 2000: 145)

(7) i-sggan udyar=ad
    3sm-be.black.PFV m.s.NOM.tissue=this
‘this tissue is black’

Tashelhit (own data)

(8) n-rgl taggurt
    1p-close.PFV f.s.ACC.door
‘We (have) closed the door.’

The following examples illustrate the interplay between the use of \(=d\) and the grammatical aspect categories for both dynamic and stative verbs. Dynamic verbs, here \(ftu\) ‘go’, express a contrast between a habitual interpretation (without \(=d\)) in (9a) and an actual continuous when used with \(=d\) in (9b).

Tashelhit (El Mountassir 2000: 138)

(9a) ar i-fttu Brahim s=tayart
    IPFV 3sm-go.IPFV Brahim to=f.s.NOM.beach
‘Brahim goes (often) to the beach.’

(9b) ar=d i-fttu Brahim s=tayart
    IPFV=PROX 3sm-go.IPFV Brahim to=f.s.NOM.beach
‘Brahim is (now) walking to the beach.’

In (10) the dynamic verb \(sadda\) ‘pass’ is used in the perfective aspect in combination with \(=d\). The orientational clitic brings about an interpretation of an enduring consequence and present relevance of the situation described by the verb in the perfective (as opposed to an otherwise probably plain simple past interpretation). The use of the proximal clitic is thus triggered by a temporal-aspectual notion.

Taqbaylit (Mettouchi 1997: 8)

(10) n-sadda=dd dg=snt n-zra asu swa-nt
    1p-pass.PFV=PROX by=them[3pf] 1p-see.PFV what be_worth.PFV-3pf
‘We have passed them (= the government goals), we know what they are.’

In Tashelhit the verb root \(ili\) ‘be (existential being)’ appears consistently in the perfective stem expressing present state meaning. (Note, however, that its morphosyntactic behaviour is otherwise not identical to that of the group of stative verbs from which it must therefore be distinguished!) The use of the proximal clitic with this verb yields an inchoative reading, although this seems to be fairly restricted and applies mainly when used to describe weather phenomena as in (11).

Tashelhit (El Mountassir 2000: 140)

(11a) i-l-la unzar
    3sm-be.PFV m.s.NOM.rain
‘It rains.’

(11b) i-l-la=d unzar
    3sm-be.PFV=PROX m.s.NOM.rain
‘It starts raining.’
While ili ‘be’ is never used in the imperfective form, stative verbs can be. Both, a resultative and an inchoative notion, can be produced with stative verbs by the use of the proximal clitic. When used with a stative verb in the perfective, =d highlights that the resultant state has been reached (12b) as opposed to a plain present state reading (12a). In the imperfective aspect a procedural change-of-state notion is brought to the fore (12c), and the use of the clitic in this case adds an inchoative notion (12d).

These mechanisms appear to be fairly regular. In section 3.1 the interplay of the clitics with the lexical aspectual verb properties (beyond the basic distinction between dynamic and stative verbs) was shown to be less predictable. In contrast, the interaction between grammatical aspect categories and the orientational clitics seems more systematic. The resultative and inchoative interpretations of the situation described by the verb result from the property of the proximal clitic to instantiate an intrinsic event boundary. This function is also related to the phenomenon described in the following subsection.

3.3 Emphasis on beneficiary/address with transfer/speech verbs

Mettouchi (1997) as well as Bentolila (1969a/b) draw attention to the fact that the use of =d also places more emphasis on the recipient or beneficiary of an action:

[I]l y a à la fois franchissement d’une limite pour le procès, et mise en rapport avec le sujet présenté comme bénéficiaire de la situation résultante. [...] il y a un rapport entre perfectif marqué [=perfective aspect + PROX =d, AF] et attribution à un bénéficiaire. (Mettouchi 1997)

The verb awi ‘carry’ without =d implies a notion of ‘to carry away, off’. Using =d can serve to enhance a goal notion (‘carry to’).
Interestingly, the use of the clitic seems unnecessary when there is an explicit prepositional goal phrase (preposition ‘to’ + lexical noun). Trying to elicit data yielded no consistent results for sentences with explicit goal or recipient expressions. In some cases the respective sentences were interpreted as ambiguous between ‘to’ and ‘toward’ the explicit prepositional goal phrase (with both aspects). When =d is used, the ‘toward’ interpretation is ruled out. In cases in which the recipient is expressed solely by a pronominal clitic, the proximal clitic is required. The interpretation of toward seems not to be available at all (at least not in connection with perfective aspect).

A conclusive account cannot be offered as yet. Too many different factors seem to be at work and their interplay is not clear at this stage: idiosyncratic lexical restrictions, lexical aspect, aktionsart, grammatical aspect, and the semantics of the clitics, in addition to possibly pragmatic and stylistic factors.

The mention of a pronominal clitic is not sufficient to construe this target notion, cf. the ungrammaticality of (13b) containing only the indirect object =asn ‘them’. In fact, the combination of =d with such pronominal object clitics is rather frequent.

4. Appearance, emergence, visibility, accessibility, relevance

Again, the use of =d is dominant, but also the opposite notion of disappearance is found expressed by =nn. Examples in this section illustrate a possible relationship between the notions of ‘directional trajectory’ and ‘entering or leaving the observers perceptual/experiential field’.

4.1 Verbs of appearance and emergence with directional semantics

The verb ask ‘come’ is obligatorily accompanied (in Tashelhit) by one of the orientational clitics (El Mountassir 2000: 132). In (14), proximal =d is used, although the trajector, leaves a more specific, confined location (under a bridge), not implying any specific location of the speaker. More important seems that the piece of wood appears in the visual field of the observer.

Tashelhit (data elicited from Hasan Akioud, 2007)
(14)  yat tfut lli=d iuskan γ= ddu n= Iqandert
     … one f.s.NOM.wood REL=PROX come.PTCP from= bottom of= bridge
     t-riggig γ=waman
     3sf-float.PFV in=m.s.NOM.water
     ‘… a piece of wood that came from under the bridge floating on the water.’

Also the verb fy ‘emerge’ and derivatives of that root (in example (15a) a causative) show this overwhelming tendency to be used with =d, although examples without any co-occurring clitics are attested.

Tashelhit (Stroomer 2002: 32)
(15)  t-sufy=d azrg=nns γ=ddu=udrural
     3sf-take_out.PFV=PROX m.s.ACC.mill=her in=under=NOM.clothing
     ‘She took out her mill from under her clothes.’
What (14) and (15) share with the following two examples is the fact that the trajectory which is described in the event crosses the boundary between a place of hiding and the visual field of the observer. In (16), the rising sun is understood in its relevance to the visual field of a real-world observer, who experiences dawn and complementary to this situation, the sunset describes the opposite move with the distal clitic \( =n \) in (17). Omitting the clitics is possible only under rather artificial conditions (e.g. an image or a model of the sun moving vertically).

Tashelhit (Mountassir 2000: 141)

(16) \( t \-yli=d \) tafukt

3sf-rise.AOR=PROX f.s.NOM.sun

‘The sun rises.’

Tashelhit (Mountassir 2000: 141)

(17) \( t-dd=nn \) tafukt

3sf-fall.IPV=DIST f.s.NOM.sun

‘The sun sets.’

4.2 Non-directional expressions: Appearance, relevance and accessibility

The notion of directionality is increasingly demoted in the following examples. (18) contains a verb of appearance (or coming-into-being), \( \gamma \text{my} \) ‘sprout’.

Tamazight (Aït Seghrouchen, Bentolila 1969b: 94)

(18) \( n-zr \) \( imndi \) \( \gamma \text{mi-n}=dd \)

1p-sow.IPV m.pl.ACC.seed sprout.AOR-3pm=PROX

‘We sow the seed and it sprouts.’

Two semantic types of verbs are common in this group: One of these has to do with exuding body fluids (sweat, tears, saliva) as illustrated in (19).

Tamazight (Aït Seghrouchen, Bentolila 1969b: 92)

(19) \( \text{imttawn} \) \( \text{lła} \) \( \text{tta-r-n}=idd \)

m.p.ACC.tear PVB:IPV IPV.run-3pm=PROX from=NOM.eyes=my

‘tears are running from my eyes’

Another verb type expresses that something comes into reach or becomes available, accessible; cf. \( \text{ttuxtar} \) ‘to be invented’ (19; Tamazight), \( a \text{f} \) ‘find’ (20; Taqbaylit) used with proximal \( =d \).

Tamazight (Aït Seghrouchen, Bentolila 1969b: 95)

(20) \( \text{lmakinat}=\text{din} \) \( \text{qa=h=d} \) \( \text{ittuxtaran} \)

machines=ANAPH(?) REL(?) PROX 3 be_invented.PTCP

‘all those machines that have been invented’

Taqbaylit (Kuningas 2008: 103)

(21) \( a=yyi=d \) \( t-af \) \( \text{sxesr-γ} \) \( ayrum=nni \) \( a=\text{(yy?)i} \) tewwet

PVB=me=PROX 3sf-find.AOR ?touch.AOR-1s m.s.acc.BREAD=ANAPH PVB=me 3sf.beat

‘(Always) when she found me touching the bread, she would beat me.’
4.3 Suddenness

Mettouchi (1997) mentions surprise as a “modal-evidential” development of the appearance semantics and the “actualizing” function. Examples from the literature which are likely to represent instantiations of this function follow.

Tashelhit (El Mountassir 2000: 142)

(22) \( t-\gamma \text{li}=d \tag{tagut} \)
\( 3s\text{-rise,PFV}=\text{PROX} \quad f.s.NOM.fog \)

‘The fog is clearing (off).’

Taqbaylit (Kuningas 2008: 179)

(23) \( \text{deggr-}e\text{y}=tt \quad \text{kan} \quad \text{yiwen} \quad \text{webrid} \quad i-\text{qgers}=d \quad \text{umrar}=\text{nni} \)
\( 1s=3s\text{-ACC} \quad \text{only one} \quad m.s.NOM.time \quad 3s\text{-break,PFV} \quad m.s.NOM.rope=}\text{ANAPH} \)

‘I pushed it [= the swing] only once and the rope got torn at once.’

It is interesting to note the notion of fog clearing (off), in other words disappearing, is expressed by means of the proximal clitic where one might have expected the distal \( =nm \). The use of \( =d \) instead in this case must be considered relatively strong evidence showing that the proximal clitic is here void of any spatial or directional notion. Similarly in (23) the lexical semantics of the verb ‘break’ do not imply any directed motion, and the fact that the rope is torn could have been expected to lead to the use of the distal rather than the proximal clitic. Again, the strong boundary-crossing and completion of a telic situation triggers the use of \( =d \) bringing about the notion of suddenness as described by Mettouchi (1997).

Summarizing the observations based on the examples discussed in the foregoing sections 3 and 4, two main trends of semantic expansion building on the directional senses of the orientational clitics have been described: the idea of bringing a situation to conclusion (construal of an event-boundary that is reached or crossed, described in 3); and—based on the boundary-crossing notion between a proximal and a distal area—the extended use of the orientational clitics in order to describe appearance, emergence, visibility, accessibility and suddenness (with \( =d(d) \)), versus disappearance or removal into a less familiar, invisible or inaccessible remoter sphere (including metaphorical transfer into domains other than topological space) with \( =nm \). The following section 5 offers a proposal that accounts for the diachronic scenario not simply in terms of semantically plausible changes of meaning, but tries also to provide some support in terms of historical pragmatic reasons that are likely to have motivated the appearance of these additional functions of the orientational clitics.

5. Subjectification as the responsible mechanism

In semantic terms, the clitics \( =d(d) \) and \( =nm \) appear to represent a straightforward pair of antonyms, but the proximal \( =d(d) \) is much more widely used. Heath (2005: 601) suggests that, intuitively, motion is more commonly understood as being directed away from a deictic centre. Following this assumption, it could be the case that the default interpretation of centrifugal motion simply does not require overt marking. Centripetal locomotion or transfer then constitutes the less expected, more marked case and as such would be in need of formal marking in the Berber varieties with the proximal clitic \( =d(d) \). This accounts for the frequency asymmetry.

Heath launches this as a reasonable hypothesis, but does not elaborate on this topic in great detail. If one wanted to follow this line of reasoning, an important subsequent step
would probably be to find independent evidence for a predominant conceptualization of motion events as centrifugal among speakers of these varieties. To my knowledge, no ethnolinguistic study in support of this has been proposed. Alternatively, if the tendency for movement to be centrifugal is universal, detailed Berber-specific evidence may not be needed: Heath’s hypothesis would then still remain plausible. The question remains, though, whether this cognitive generalization is truly reliable and robust across languages.

Having another close look at the data from the Berber varieties, one observation goes against this explanation. If a centripetal vector is to be viewed as the non-default direction, why is it then the case in Berber that spatial-directional uses are attested with =nn rather than with =d(d) (irrespective of the lower frequency of the former)? Should we then not expect =d(d) to serve this particular spatial-directional purpose more often (in addition to whichever range of more grammaticalized functions it may have taken on since)?

Admittedly, this observation is perhaps not strong enough to truly undermine Heath’s hypothesis, but I find it sufficiently significant to consider alternative explanations. One such explanation has been launched by El Mountassir, albeit only in a very cautious and preliminary way. He points out the significance of the speaker as the default spatial reference point (1997: 131) and mechanisms of metaphorical transfer and directionality of semantic extension (135). All of this is suggestive of an historical pragmatic mechanism along the lines of ‘subjectification’ as proposed and developed by scholars like Hopper, Traugott and others (cf. Hopper and Traugott 2003, Traugott and Dasher 2002). Traugott and Dasher characterize subjectification as “the semasiological process whereby S[peaker]/W[riter]’s come over time to develop meanings for L[exeme]’s that encode or externalize their perspectives and attitudes as constrained by the communicative world of the speech event, rather than by the so-called ‘real-world’ characteristics of the event or situation referred to.” (2002: 30). The tendency to interpret a statement as being intended to convey a subjectified sense (rather than an objective, real-world denotation) allows for the emergence of invited inferences. In cases of semantic ambiguity, those interpretations are likely to win out that refer to the sphere of the speaker/writer, in other words ‘ego’.

The semantic developments which the orientational clitics underwent exemplify this type of semantic shift. The following scenario takes into account these subjectification mechanisms which reinforce frequency effects. Ultimately this leads to the substantial difference between the usage patterns of the two orientational clitics. Taking as a starting-point the original distinction between a proximal and a distal sphere, the scenario may have developed along the following lines.

Figure 1. Spatial deictic distinction between PROX and DIST

The most basic array (Fig. 1) would be a simple distinction in terms of spatial distance between what is understood by the speaker/writer as near and distant. This is indeed the
conceptual basis for the semantics of the nominal clitics as well as the pronouns. In the verbal domain, only the apparently rather exceptional use of the clitic =nn in order to express that something happened at a distant place (without any implication of directionality!) would be based on this schema; cf. the Tamazight example zix=nn ay/ ‘I milked milk there’ (Bentolila 1969: 98) given above in footnote 1.

Deictic verbs implying translational motion are particularly common in Verb+clitic constructions, cf. English come here or the German equivalent Komm’ (mal) her! Berber frequency patterns of current use show a very clear bias toward a use with verbs like rah ‘come’, ašī ‘come to’, etc. Other verbs that will readily be interpreted along similar lines are transfer verbs and verbs of communication.

**Figure 2. Translational motion toward PROX or DIST endpoint**

Two properties that are likely to give a frequency advantage to the use of the proximal clitic over the distal clitic are the following:

1. The first person singular is of particular significance in speech acts, occurs frequently and is a default spatial reference point in particular for telic directed motion and transfer events; cf. the use of German her ‘here; hither’ in directives of the type Komm’ her! ‘Come here!’ or Gib’ her! ‘Give it [to me]’. With these very common verbs, their intrinsic semantics favour the use in situations where they are accompanied by =d, not =nn, the former thus becoming more frequent.³

2. At the same time, situations that involve motion or transfer to a distant endpoint are likely to be described in statements in which this endpoint is made explicit. The directionality can then be construed by means of the explicit path description. In such cases, the use of =nn is redundant. There are two possible developments at that stage: either the use of =nn is simply dropped which would account for the growing frequency asymmetry. Or, the continued use of the distal =nn invites a new interpretation.

³ Yvonne Treis, who read an earlier draft, pointed out that the German proximal clitic/prefix her- also seems to have been generalized in a comparable process, as illustrated by the use of rein (shortened from hervor ‘here into’) not only for proximal, but also for distant locations (instead of the longer hinein ‘there into’):
Komm rein! (= Komm hervor) ‘come in’
Geh da rein! (= Geh da hinein) ‘Go (there)in’
The original sense of ‘(at) a distant place’ (Fig. 1) led to the corresponding interpretation of ‘to a distant place’ (Fig. 2) in connection with directed motion or transfer verbs. The latter invites the inference ‘away from here/speaker location’ (Fig. 3).

A shift in meaning quite similar to this occurred with German hin as in Sie geht (da)hin ‘1. she goes there; 2. she goes away’. Eventually this development gave rise to the meaning ‘lost, broken, destroyed’ (cf. Es ist hin ‘it is gone/lost’).

German

a) Er geht hin zum Konzert. ‘He goes to the concert [at some distance; the use of hin implies a slight counter-expectational notion].’
b) Die Schokolade schmilzt dahin. ‘The chocolate melts away.’
c) Das Hemd ist hin. ‘The shirt is torn/ruined.’

The fact that motion or transfer to a distant endpoint implies movement away from the deictic centre, typically the speaker, created semantic ambiguity between two interpretations of =nn. This can be detected in some Berber varieties which still use =nn fairly productively as in the following Tamazight examples with the verb rah ‘come, go’.

Tamazight (Ait Seghrouchen; Bentolila 1969a: 88)

(24a) i-rah=dd zi=fas γτ=mnas
3sm-come.PFV=PROX from=Fes to=Meknes
‘he came from Fes to Meknes’ (speaker in, or closer to, Meknes, e.g. in Rabat)

(24b) i-rah zi=mnas γτ=fas
3sm-come.PFV from=Meknes to=Fes
‘he went from Meknes to Fes’ (speaker in Rabat, as above)

(24c) i-rah=nn zi=mnas γτ=fas
3sm-come.PFV=DIST from=Meknes to=Fes
‘he came from Meknes to Fes’ (speaker addressing someone in Fes)
‘he went from Meknes to Fes’ (speaker in Meknes, addressee not in Fes)

Relevant for the current concern is the contrast between (24b) and (c). While (b) is “deixis-neutral” and the plain topological arrangement of the trajectory is expressed solely by explicit locative phrases, the use of =nn in (24c) relates the trajectory to the speech situation (implying that the addressee is in Fes). In both examples the trajectory from source to goal in physical space is fully spelled out. The crucial difference between both sentences is, according to Bentolila, the existence of a distant addressee in (c). It may look as if the “distant endpoint” notion of =nn remains intact here, but it must be borne in mind that the event is
anchored in relation to the communicative sphere ("close to addressee"), not so much in the actual spatial setting in topological terms. Consequently, not much can be inferred about the location of the speaker from the sentence in (24c) other than the fact that there must be some perceived distance between the interlocutors (possibly the statement is part of a telephone conversation, or it refers to metonymically associated places, the addressee’s home).

Somewhat surprisingly, the interpretation of =nm as "away from the deictic centre" (i.e. the speaker) does not work well in (24c). The favoured interpretation is that of a distant addressee, rather than centrifugal movement away from the speaker. This may, at first glance, look as if it was going against the postulated shift from "towards distant endpoint" to "away from deictic centre". It must be taken into account, however, that this scenario is the effect of the combination of the verbal semantics (implying that a goal is reached) and the semantics of co-occurring distal =nn, against the backdrop of a lexically fully spelled out path. The reason is thus not any intrinsic meaning restriction of =nm (to the effect that =nm necessarily implies a distant endpoint), but the fact that the source ('from Meknes') is made explicit. If the source phrase was missing (i.e., ‘he went/came there to Fes’), the distal =nm would indeed simply imply that the movement of the subject was centrifugally directed away from the speaker, without any implication as to the addressee’s location.

In sum, the actual implicit understanding of a distant addressee in (24c) is the effect of subjectification, interpreting the orientational clitics in terms of the communicative sphere rather than an actual spatial setting. What looks as if =d served to express a distant endpoint in (24c) is rather an effect of the speaker-addressee constellation. As a matter of fact, all other things being equal, even here the notion of movement away would be a default understanding of distal =nm. Ultimately the reading 'towards there' lost out against 'away from here'. How do we know? Because the notion of reaching a distant endpoint is currently often expressed by =d rather than =nm. In the following example from a story, the verb ašk ‘come to, reach’ is used with the proximal, not as one might have expected, the distal clitic.

Tashelhit (Stroomer 2002: 32)

(25) [...] ar yan wass t-ašk =id s dar =sn tfqqirt until one m.s.nom.day 3sf-come.aor =prox to at =3pm f.s.nom. old_woman

‘[...] until one day, an old woman came to them.’

Since the old woman is a new character, while the residence of the people where she arrives has already been mentioned in the narrative before, it might be argued that discourse-structuring principles – the known domain being indexed by the proximal clitic =d – could be at work. Further examples, however, show that this is not necessarily the case, cf. (26).

Tashelhit (Stroomer 2002: 82)

(26) i-mun d istis n ugllid iy"li =d 3sm-join.pfv with daughters of m.s.nom.king 3sm-climb.aor =prox ar dar tafruxt up_to at f.s.acc.girl.

‘[H]e joined up with the king’s daughters and went up to [the room of] the girl.’
Figure 4. Reaching an endpoint is expressed by means of \(=d\), irrespective of speaker location.

Motion verbs which imply reaching an endpoint (or verbs of semantic types that share sufficient schematic properties, such as transfer verbs) tend to occur with an explicit GOAL phrase and often this is even compulsory. There has to be either an explicit locative complement or direct object expressing GOAL. These verbs also often require the use of a clitic, irrespective of whether the speaker intends to specify anything about the deixis of the speech event.\(^4\) In these cases it is typically \(=d\), not \(=nn\). The proximal clitic is used, even if the endpoint is by all means distant from the deictic centre.

While so far, the discussion centred on how the distal clitic could have changed its functions over time, this development is connected with that of the proximal clitic \(=d\). A complementary illustration of the latter’s diachronic semantic developments is very desirable. Unfortunately, a number of factors which one would need to take into consideration are not known well enough to develop a fuller account of the complementary story of \(=d\). One important factor is the high number of lexicalized occurrences in which a verb simply requires the use of proximal \(=d\). While this in itself would require a historical-linguistic explanation, it may – by way of frequency effects – at the same time also have affected the overall diachronic scenario causally. A similar point could be made for the interaction between the proximal \(=d\) and grammatical aspect. Due to the regrettable lack of a more comprehensive verb classification for the Tamazight/Berber varieties, a full account is not possible at this stage, but a likely scenario seems to be the following.

Telic motion or transfer verbs used with proximal \(=d\) will have a necessary endpoint – once the motion or transfer reaches the (proximal) deictic centre, typically ego. For not inherently telic verbs, the use of \(=d\) is somewhat more complex. There are two interpretations: ‘moving closer to’ versus ‘moving right up to the deictic centre’. This distinction between ‘(topological) toward’ versus ‘(telicity-establishing) reaching of an endpoint’ is not in principle impossible to draw, since a transfer from a distant point of departure could target an endpoint closer to, but not identical with, the deictic centre. In practice, there is a high likelihood – again for reasons of subjective relevance! – that their usage is intended to mean that the transferred object (or moving figure in case of a telic motion verb) reached ego (rather than simply approaching ego). As a result, in actual speech, the sense of reaching the goal will outnumbe the sense of moving closer/toward the deictic

\(^4\) This may seem strange at first, because the trajectory is explicit. Perhaps one reason why the use of clitics has often become so entrenched that it is virtually obligatory with a number of verbs has to do with the fact that often the locative anchor points are pronominal, and we have seen that this is a relevant factor (see 3.3). It would be very interesting to calculate on the basis of a larger corpus to what extent there is a correlation between occurrence of pronominal clitics and directionals/orientational clitics, but this has to my knowledge not been carried out yet.
centre by far. At some stage the former may have been interpreted as the core meaning of the construction, and proximal =d thereby developed an endpoint reaching function which now prevails, and ultimately allows for its use also in instances in which the endpoint cannot be understood as close to the deictic centre in any way. In the course of this development, topological-spatial notions become much less significant.

This back-grounding of any spatial notion may have enhanced the other larger trend in the semantic development: Emergence, visibility and appearance, ultimately leading to the notion of current relevance. It is interesting to note how two different lines of semantic development converge here. The current relevance notion has been pointed out by earlier authors (most explicitly Mettouchi, but also El Mountassir) as a result of aspectual interaction, whereby a dual time notion (a completed change-of-state bringing about the currently relevant situation) is addressed by grammatical aspect in connection with =d (see 3.2). I suggest that the semantic developments and subjectification form a relatively independent mechanism (albeit possibly a supportive one, rather than a counter-proposal, to Mettouchi’s argument) responsible for the developments outlined in section 4.

6. Summary and outlook

The central task of this contribution was a description of the use of the two orientational clitics =d and =nn in Berber (with an emphasis on Tashelhit). As a point of departure, the relationship between the directional use of these clitics in connection with verbs and etymologically related adnominal or pronominal morphemes needed to be disentangled. Another point that has long been noted among scholars is the frequency asymmetry between both clitics, proximal =d(d) occurring much more often than distal =nn in all available corpora.

One of two main semantic developments concern the relevance of the proximal =d for event boundaries, and therefore its relevance in the grammaticalization and lexicalization of aspectual properties. Certain constructions have emerged in which =d shifts the emphasis from resultant state to inchoative (with stative verbs), or from a default habitual interpretation of the imperfective (with dynamic verbs) to a progressive interpretation.

The other main development concerns the extension from directional translational motion to the indication of emergence, visibility, coming into being, and accessibility. It is not fully clear for the time being whether and how this notion of accessibility and current relevance is linked to the aspectual function of, for instance, inactual (habitual) interpretations into actual (progressive) interpretation as mentioned above.

In my view at this point two things are lacking which could shed more light into the question of the diachronic development and synchronic functions of the clitics. The first of these is improved lexical semantic work, i.e. a more complete analysis of co-occurrence and frequency patterns of verbs, their semantic make-up, and possibly the formulation of more fine-grained semantic types that would allow for a more systematic account of the aspectual interaction.

Equally important for a fuller account would be the systematic analysis of spoken language corpora. So far, this contribution included, all texts on the topic use examples for illustrative purposes, but they are often either taken from written text corpora, elicited or introspectively created. This kind of data allows for the development of hypotheses, but these will ultimately have to be tested against spoken natural discourse data. We need to understand better how the pragmatics of the clitic use works. Otherwise, we will not be able to know for sure whether the historical pragmatic explanation launched here – which takes up a brief and cautiously formulated mention by El Mountassir and relies mainly on the notion of subjectification in Traugott’s understanding – will prove adequate. Available data from
different Berber varieties strongly suggest, however, that it is more than plausible that the starting point of the semantic and grammatical developments lies with directional verbs, favouring for reasons of speaker-centredness and the conventionalization of pragmatic inferences the more frequent use and broader variety of functions of proximal \(=d(d)\).

### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>ACC</td>
<td>accusative</td>
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<tr>
<td>2pf</td>
<td>Second person plural feminine</td>
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<tr>
<td>3sm</td>
<td>Third person singular masculine</td>
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### References


Extensive is up, intensive is down: the vertical directional background of the adverbials *kọ* vs. *tsọ* in Isu

Roland KIESSLING

Abstract

Isu, a Cameroonian Grassfields Bantu language of the Ring subgroup, has two highly frequent antonymic adverbials, *kọ* vs. *tsọ*, which mark a contrast of event extension vs. event intension. Spatial usages of these adverbials suggest that they represent advanced stages of grammaticalisation of prior vertical path verbs *kwọ* ‘ascend’ vs. *tsọ* ‘descend’ which have evolved as coverbs in the context of asymmetrical serial verb constructions, betraying a metaphorical conceptualisation of qualities and quantities via vertical path schemata, following the models UPWARD IS EXTENSIVE and DOWNWARD IS INTENSIVE. The point of this case study is to provide evidence of – possibly less common – avenues of development of vertical path verbs beyond the spatial domain and thus contribute to the understanding of directionality as a source concept in grammaticalisation.

1. Introduction

Path verbs such as the ones presented in (1a) seem to be widely researched and quite well-known for the paths of grammaticalisation they can take. Many serialising languages of Africa and all over the world attest to their development to spatial grams expressing target concepts such as the ones in (1b) along the lines of desemanticisation, morphosyntactic adjustment and phonetic erosion in the framework of Heine & Reh 1984. Desemanticisation brings about a semantic reduction of path verbs to the paths they encode, i.e. a dedynamicisation. This process entails morpho-syntactic adjustment, i.e. a progredient loss of verbal properties which might eventually be accompanied by formal erosion, i.e. assimilation and loss of segments or features.

(1) Grammaticalisation of path verbs to spatial grams (in SVCs)

<table>
<thead>
<tr>
<th>(a) source concept</th>
<th>(b) target concept</th>
<th>reference</th>
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<tbody>
<tr>
<td>‘enter’ &gt;</td>
<td>IN</td>
<td>Lord 1993: 147-48</td>
</tr>
<tr>
<td>‘exit’ &gt;</td>
<td>OUT</td>
<td>(Svorou 1994: 115-117)</td>
</tr>
</tbody>
</table>

1 The present paper has profited greatly from discussions with the participants of the Workshop on “Directionality in Grammar and Discourse: Evidence from African Languages”, held at the University of Cologne from June 10th to 11th 2010. In particular, I want to express my gratitude to the DFG (German Research Foundation) whose generous grants enabled the research on which this contribution is based and to Philip Ngessimo Mutaka and Pius Tamanji for their effective administrative help and their hospitality in Yaoundé. Moreover, I am deeply grateful to Bong Marcellus Wung of Isu who has untiringly helped to clarify the grammatical and semantic intricacies of the use of the adverbials *kọ* and *tsọ* in his mother tongue. All mistakes remain my own.
The central concern here, however, is not primarily with well-attested developments such as these, but rather with semantic extensions of lexical items for vertical path meanings such as ‘ascend’ and ‘descend’ which go beyond the spatial domain – something which is considerably less researched and will therefore contribute to the understanding of the cognitive potential of directionals in general.

2. The adverbials $k*$ vs. $ts*$

Isu² postverbal adverbials $k*$ and $ts*$ are in antonymic relationship marking a contrast of event extension vs. event intension. While $k*$ indicates the spatial or temporal extension of an event resulting in distributive and durative readings, $ts*$ rather expresses event concentration and intensification. Thus, in (2a-i) the extensive adverbial $k*$ highlights the notion of duration inherent in the core verb $däm$ ‘struggle’, adding the implication that the father’s efforts to teach his son the art of trapping were distributed over a longer period in time and repeated in various places. As soon as $k*$ is replaced by $ts*$ (2a-ii), the notion of labour inherent in the core verb $däm$ ‘struggle’ is emphasised, implying that the father’s effort to teach his son the art of trapping was concentrated in a single attempt of extraordinary intensity which entails by conventional implication that this intensity, in contrast to the temporally distributed efforts in (2a-i), must be attributed to some unexpected deficiency or abnormal condition, e.g. his son must have been a complete blockhead. In (2b) a drought is described for its slightly different effects: while $k*$ (2b-i) indicates that the drought hit extensively, affecting rivers in a vast territory, $ts*$ in (2b-ii) rather signalises that the drought hit a more restricted area with a more dramatic effect than in (2b-i): while $k*$ in (2b-i) leaves the option that there might be residual puddles of water here and there, however in insufficient quantity, $ts*$ in (2b-ii) makes sure that there is absolutely no water left whatsoever.

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(2) Postverbal adverbials $k*$ (extension) vs. $ts*$ (concentration)

(a-i) mwåaabé 'w-้ง $däm$ $k*$ yíy* zúñí 1.compound.owner 1-D1.P3 struggle EXT until teach
ná tsá ʨ vá á’n-i-bè úfía keep INT 1.child to-VN-trap 8.things
‘This compound owner struggled for long in repeated attempts to teach his child how to trap things.’

(a-ii) mwåaabé 'w-้ง $däm$ $ts*$ yíy* zúñí 1.compound.owner 1-D1.P3 struggle INT until teach
ná tsá ʨ vá á’n-i-bè úfía keep INT 1.child to-VN-trap 8.things
‘This father struggled enormously in an attempt to teach his child how to trap things.’

(b-i) dzwï tà ʨúmí màa $k*$ 13.rivers 13.P3 become.dry completely EXT
‘All rivers dried up extensively / in a vast area.’

---

² Isu is a Grassfields Bantu language of the Ring subgroup, spoken by approximately 10,400 people (Lewis 2009) in the North Western province of Cameroon. It is closely related to Aghem spoken mainly in and around the town of Wum (Hyman 1979: ix, Breton & Fohtung 1991: 136-137), in a chain of dialects which include the varieties of Bu (= Laimbue), Weh, Kuk and Zoa (= Zhoa) as well. Kuk is not mentioned in Lewis 2009. Kumfutu and Cha’ mentioned by Watters (2003: 230) could probably be subsumed under Kuk; while Kung, Nyos and Fungom, also mentioned by Watters, seem to belong in Central Ring.
The antonymy of *kó* vs. *tsá* may shift from the domain of event dimension to the domain of event number. Thus, *kó* may indicate event plurality or multiplicity, i.e. repeated acts of singing (3a-i) or beating (3a-ii), which results from its primary notion of temporal or spatial extension, whereas *tsá* signals singularity, i.e. a single act of singing (3b-i) or beating (3b-ii), as a consequence of its primary notion of concentration and intensification.

(3) Contrast of adverbial *kó* (event plurality) vs. *tsá* (singularity)

(a-i) į *ţźm* kó
5.P3 sing EXT
‘It sang repeatedly / extensively.’

(a-ii) ū bwá’t kó ‘wé y’y μ
3sg beat EXT NS3sg until
‘He beat her up for a long time.’

(b-i) į *ţźm* tsá
5.P3 sing INT
‘It sang once.’

(b-ii) ū bwá’t tsá ‘wé
3sg beat INT NS3sg
‘He beat her momentarily / once.’

With respect to event number, the adverbials *kó* vs. *tsá* interact with the residues of a system of verbal derivation retained in Isu which includes a verbal pluractional (Kießling 2004b), exemplified by the contrast of a simplex *báb* ‘ask’ vs. the pluractional stem *byibí* ‘ask repeatedly, inquire’. Thus, the adverbial *tsá* in (4a) highlights the fact that the act of asking has been performed once, albeit insistently. As soon as the verbal simplex *báb* is replaced by the pluractional stem in (4b), the adverbial *tsá* is ruled out, since it is incompatible with the pluractional due to its intensional meaning. However, the pluractional verb stem is perfectly compatible with the adverbial *kó* in (4c) which serves to highlight the repetitive notion here. As mirror image to (4b), the adverbial *kó* is incompatible with the simplex verb *báb* ‘ask’, as indicated in (4d).

(4) Contrast of *tsá* (intension) vs *kó* (extension) in relation to the pluractional

(a) ū ‘báb tsá ndáw bâ’tútum
3sg.P3 ask INT 9.house 1.chief
‘He asked once (insistently) for the chief’s house.’

(b) ū ‘byibí tsá ndáw bâ’tútum
3sg.P3 ask.pl INT 9.house 1.chief

(c) ū ‘byibí kó ndáw bâ’tútum
3sg.P3 ask.pl EXT 9.house 1.chief
‘He asked repeatedly for the chief’s house.’
Apart from this major semantic extension to the domain of event number, both adverbials come up with a variety of specialised meanings which, as will be argued below, stem from the central semantic contrast of extension vs. intension or concentration. In particular, the adverbial *k* expresses three distinct functions all of which are interrelated by polysemy: a repetitive-distributional function (5a), a completive function (5b) and a continuative-durative function (5c). In (5a), *k* indicates that the diviners treat the enchanted person with the medicinal shrubs repeatedly. The omission of *k* would result in the reading that the diviners beat her only once. In (5b), *k* signals that the maize has been burnt completely: due to the duration of the burning process it has been destroyed entirely. In (5c), *k* highlights the uninterrupted continuation of an action, i.e. the hares do not let themselves be bothered by the persistent pleas of the hero, but continue being busy with their work for an extended period.

(5) Usages of the adverbial *k*

(a) repetitive-distributional function:

<table>
<thead>
<tr>
<th>áyéô-fýná</th>
<th>ñóyí</th>
<th>kwí</th>
<th>tsó</th>
<th>³vé,</th>
<th>bwát</th>
<th>kó</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.diviners.P3</td>
<td>come</td>
<td>exit</td>
<td>catch</td>
<td>INT</td>
<td>O3sg</td>
<td>hit</td>
</tr>
</tbody>
</table>

³vé, nà fómá t-fy yfy'

O3sg with 13.medicinal.shrubs 13-OF like.this

'The diviners came out to catch her and kept beating her with medicinal shrubs repeatedly like this.'

(b) completive function:

<table>
<thead>
<tr>
<th>ásáŋ</th>
<th>á</th>
<th>³fwó</th>
<th>náí</th>
<th>kó</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.maize 6</td>
<td>burn</td>
<td>become.lost</td>
<td>EXT</td>
<td></td>
</tr>
</tbody>
</table>

'The maize got completely burnt.'

(c) continuative-durative function:

<table>
<thead>
<tr>
<th>ntsó</th>
<th>m-š</th>
<th>fáʔ-á</th>
<th>yá</th>
<th>kó</th>
<th>nʊʊş</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a.hares 6a-D1.P3</td>
<td>work-IPF</td>
<td>CFG</td>
<td>EXT</td>
<td>CF</td>
<td></td>
</tr>
</tbody>
</table>

'The hares kept working on.'

The adverbial *tsó* has three main functions all of which are interrelated by polysemy: an intensive function (6a), an immediative function (6b) and an urgentive function (6c). In (6a), *tsó* intensifies the degree of the cobra’s redness, supported by the ideophone *ńtsáat* for brightness of a red hue. The elements of immediacy and urgency are illustrated in (6b-c). In (6b), *tsó* indicates an immediate succession of events, used by the narrator to emphasise the deadly effect of the trap: having been caught, the cobra dies inevitably after a short struggle. In (6c), the story’s main protagonist uses *tsó*, in order to make his plea as urgent as possible, implying that immediate action is needed for helping him. This sense of an immediate, acute and punctiliar effect of an action or event expressed by *tsó* is, again, in antonymic contrast to the notion of an extended, spread and distributed effect expressed by its abverbial counterpart *k*.
(6) Usages of the adverbial tsá

(a) intensive function:

mbám á bâŋ  tsá  ãntsåat
9.cobr 9.P3 becoming.red  INT  <bright.red>

‘The cobra became absolutely red.’

(b) immediacy function:

wîy mbám á bwât kè táŋ ûwé† pëš dëyò  tsá  àwò
1.wife 9.cobra  P3  hit  in.vain  push  3.body  die  stay  INT  there

‘The wife of the cobra fought in vain and died there on the spot.’

(c) urgency function:

má  bwò?  niə  yâ  nà  wò  k-î-y  yà  nû
S1sg  clasp  give  2pl  with  7.hand  7-OF  2pl  SjN.hide

nâ†  tsá†  mà
SjN.keep  SjN.INT  O1sg

‘Please, I beg you: you should hide me immediately!’

Most of the semantic phenomena observed so far could be explained and motivated by postulating a single basic antonymy of tsá vs. ká, with tsá indicating concentration, intension or an intense effect, whereas ká marks a spatially or temporally extensive effect.

Intension in the case of tsá includes two distinct tracks of semantic development (7). Taking intensification as the starting point, notions such as punctiliarity, singularity, immediacy and urgency have been derived from it by metonymical steps of extension. Intensification often implies accuracy and usually involves the concentration in a locally and temporally fairly restricted and compact deep impact, i.e. it is oriented towards a single point of culmination, which motivates its semantic narrowing to punctiliarity and singularity. The second path of extension is justified by the tendency that the intensity of an action typically increases its immediacy, its insistence, its urgency and sustainability.

(7) Polysemy of tsá (intension)

intension:  intensity > punctiliarity > singularity
          intensity > immediacy > urgency

The notion of extension in the case of ká subsumes three distinct tracks of semantic transfer, as laid out in (8). Taking extensiveness or extendedness as the starting point, one can say that notions such as repetition, distribution, plurality, duration, completion and continuation have been derived from it by metonymical steps of extension. Spatial extension often results in a distribution of an action across various settings which entails plurality. Temporal extension increases the duration in durative actions and events, resulting in a continuative reading, and might extend to include the point of completion, in particular in the case of gradually terminative verbs. With punctiliar events and actions, temporal extension results in the notion of repetition.

(8) Polysemy of ká (extension)

extension:  extensiveness > distribution > plurality
           extensiveness > duration > continuation > completion
           extensiveness > repetition
The extensive adverbial *ká* has a homonym with a delimitative-restrictive sense 'only'. Thus, in (9a) it serves to exclude the possibility that eventually other body parts could have been affected by the beating. In (9b), the delimitative adverbial *ká* indicates that, after a whole series of other things that had to be planted, there is now only this one final job left to be done. In contrast to the extensive *ká*, delimitative *ká* freely combines with the intensive adverbial *tsá* (9c). The addition of *tsá* in (9c) profiles the particularity of this last event, putting special emphasis on the restriction to this event, which may entail, in contrast to (9b), that this is the only planting job to be done at all. Thus, while the delimitative marker *ká* highlights the imminent completion of a series, the addition of the intensive marker *tsá* highlights the particular last event of this series.

(9) Delimitative-restrictive *ká* ‘only’:

(a) mā bwáčt ká ‘wó á’n-á-nú úwúŋ
   1sg hit only O3sg at 8.buttocks
   ‘I beat him only on the buttocks.’

(b) ū niò ká ká á’n-í-zú ásáŋ
   3sg now have only to-VN-plant 6.maize
   ‘He only has to plant maize now (after a whole series of other crops he has planted before).’

(c) ū niò ká tsá ká á’n-í-zú ásáŋ
   3sg now have INT only to-VN-plant 6.maize
   ‘He only has to plant maize now (as the only planting job to be done at all).’

(d) ū niò byībó ‘kó ndàw bàtùm
   3sg now ask.pl.IPV only 9.house 1.chief
   ‘He is asking only for the chief’s house now.’

(e) ū niò byībó ‘tsá ‘kó ndàw bàtùm
   3sg now ask.pl.IPV INT only 9.house 1.chief
   ‘He is only asking for the chief’s house now.’

(9d-e) illustrate the compatibility of delimitative *ká* with the intensive adverbial *tsá* in combination with a pluractional verb stem *byībó*, derived from the simplex *báh* ‘ask’. In (9d), the delimitative adverbial *ká* indicates that a whole list of questions must have been asked before and only this final question is left to be answered now. The addition of *tsá* in (9e) implies that, even though the requester may have many other things to ask on his mind, he suppresses those other questions, momentarily restricting himself to asking only this single pressing question. The use of the pluractional stem here implies that the urgent question to which he restricts himself is to be perceived as potientially part of a multitude of questions.

The intensive adverbial *tsá* has a near homonym *tsá* which is distinct by its low tone and indicates habituality, representing a reduction of the adverbial *tsáŋ* ‘always’. Thus, in (10), *tsá* signalises the habitual repetition of painful things which come to haunt the child. If *tsá* was dropped, the idea of habituality would be lost.

(10) Habitual *tsá*:

yá’ wá ká? ní nà úffó ú fwaábó w-íy ηngé kwí tsá iye
   as child SO.see SO that 8.things 8 hurt.IPV 8-OF as catch HAB LOG
   ‘Since the child saw that painful things always catch him much [for the reason that he didn’t know to set traps] …’
3. Spatial source concepts of the adverbials ğu vs. tsá

Apart from the functions subsumed under the labels of extension vs. intension, both adverbials, ğu vs. tsá, are also used for expressing spatial notions or rather, more precisely, a contrast of upward vs. downward vertical path orientation. Thus, ğu in (11a-b) indicates an upward path of the motion event expressed in the verb ni ę ‘take’; tsá in (12a-c), on the other hand, expresses a downward path of motion events encoded in the verbs dšš ę ‘sit, stay’, mà comentarios ‘throw’ and kım ‘bend’.

(11) Upward orientation with ğu:
(a) mà nà wį nį ę kwàm à wè, niwò 1.mother 1-D1.P3 take up 9.cup push 3sg.POSS leave
yà án-i-zù kwà ‘mwi, CFG to-VN-go search 6a.water
‘The woman picked up her calabash and went away to go and search for water.’
(b) ú ę ntwàmí nį ę kwàm à wè 3sg.P3 immediately take up 9.cup push 3sg.POSS
‘She picked up her cup immediately.’

(12) Downward orientation with tsá:
(a) dšš ę tsá sit.IMP down
‘Sit down!’
(b) mà comments ę tsá throw.IMP down
‘Drop (it)!’
(c) kım ę nà ę tsá tòw k-ly bend.IMP keep.IMP down 7.head 7-OF
‘Keep your head bent down!’

These basic spatial meanings of the adverbials tsá and ğu could also be found to interact with polysemous verbs such as niwò ‘rise; leave, depart’ and polysemous asymmetrical serialisations such as nù nú ‘hide; bury’. Thus, the adverbial ğu activates the change of posture meaning ‘rise’ in the verb niwò in (13a-b), whereas tsá in (13c) blocks this meaning, due to its incompatibility with an upward path orientation, and instead activates the separative meaning ‘leave, depart’.

(13) Interaction of lexical polysemy in niwò ‘rise; depart, leave’ with vertical path adverbials ğu ‘up’ vs. tsá ‘down’:
(a) àzà wà yįdí ’wį niwò ę kwà, tsái yà 1.sibling 1.child female 1-D1.P3 rise up descend CFG
sàžù, zù ę kwà yà sàžù án-i-divi nà ... also go start CFG also to-VN-cry that
‘The brother of the girl got up and also went down thither and started once more to cry there [that] ...’
A similar constraint triggered by vertical path notions is manifest in the interaction of the basic lexical meaning of the verb *nù* ‘hide’ with the adverbial *tsô* (14a-b), as it combines with the terminative coverb *ná* ‘keep’ in asymmetrical serialisation. In (14a), *tsô* signals the urgency of the required action encoded in the core verb *nù* ‘hide’. In the indicative mood and in combination with past tense reference, its spatial notion of downward path orientation is activated much more commonly instead of the urgency meaning. So the core verb *nù* ‘hide’ in asymmetrical serialisation with the terminative coverb *ná* ‘keep’ acquires the special meaning ‘bury’ (14b).

(14) Interaction of lexical polysemy in the serialisation *nù ná* ‘hide; bury’ with the vertical path notion ‘down’ vs. the immediacy notion in the adverbial *tsô*:

(a)  
2sg OBL hide keep IMM O1sg  
‘You must hide me immediately!’

(b)  
S1pl P1.FOC O3sg hide keep down  
‘We have buried him.’

Just like the adverbial *kô* for the extensive readings, adverbial *kô* for upward orientation is also in a homonymic relationship to the delimitative-restrictive *kô*. This is supported by the fact that both of them could be combined as in (15a-b). However, *kô*’s which represent various notions of extension have not been found to combine with each other. This again confirms the analysis that all of the extensive readings might be grouped as representing a network of polysemy, whereas the delimitative-restrictive *kô* really represents a distinct homonymous lexical entry.

(15) Combination of *kô* ‘up’ and *kô* ‘only’:

(a)  
yâ yû fâ’tâ, kâi sônjâ kô ‘kô kâvâb, as 3pl SO.chew.IPF every.P3 pull.IPF up only 7.bone  
gâta niâ tsô, fîlâ yô nâm  
station.IPF keep.IPF down chew.IPF CFG 9.meat  
‘As they were eating each would pull out only a bone and place it aside while eating the meat.’

(b)  
2.women 2 other 2-D1 say.IPF to-O3sg that 3sg take up only CF  
‘The other women told her that she should pick it (i.e. the child) only up.’

Most usages of *kô* allow for a free variation with a more complex form, *kwô’s*, which must be identified with the motion verb *kwô* ‘ascend’. The crucial point is that this variation does not only affect path-specific readings of *kô*, such as the one in (16a), but also
non-path readings such as the distributional extensive reading (16b), the completive reading (16c) and the durative reading (16d). The delimitative-restrictive adverbial homonym kó ‘only’, however, only ever occurs in the form kó and cannot be replaced by kwɔ́, as indicated in (16e).

(16) Free variation of kó and kwɔ́ for spatial and extensive meanings:
(a) ú t̲n̲t̲w̲á̲m̲í̲ ni̲y̲ k̲ó̲ / kwɔ́ bwà̲m̲ ò̲ w̲é̲ 3sg.P3 immediately take up / ascend 9.cup 9 3sg.POSS
‘She picked up her cup immediately.’
(b) y̲ú̲ t̲w̲ó̲n̲g̲ó̲ t̲k̲á̲b̲í̲ k̲ó̲ / kwɔ́ ay̲é̲ mán̲t̲í̲á̲ 3pl.P3 call about up / ascend 2.people 6ab.medicines
‘They called around for medicine men ...’
(c) ú k̲í̲ ̲f̲é̲b̲-̲á̲ mi̲à̲ k̲ó̲ / kwɔ́-̲á̲ ̲ŋ̲w̲á̲ 3sg F1 become.blind-IPF finish.IPF up / ascend.IPF CF
‘He will become completely blind.’
(d) y̲ú̲ mán̲j̲ d̲l̲y̲ k̲̲é̲ k̲ó̲ / kwɔ́ 3pl.P3 merely cry in.vain up / ascend
‘They just cried in vain for a long time.’
(e) y̲ú̲ zú̲, á mài k̲ó̲ / *kwɔ́ mbɔ́ŋ̲ 3pl.P3 go IS.P3 become.finished only / *ascend Mbong
‘All went, except Mbong (i.e. only Mbong was left).’

This synchronic coexistence of both forms, kó and kwɔ́, for the spatial and the extensive readings of the adverbial points to a path of grammaticalisation which leads from a prior autonomous motion verb kwɔ́ ‘ascend’ to the adverbial via various intermediate steps of semantic extension (17c), morphosyntactic simplification (17b) and phonological reduction (17a). The semantic extensions include a generalisation, i.e. the erstwhile motion verb is deprived of its motion component and reduced to its path component (17c-i), and a metaphorical transfer according to which spatial and temporal extension of activities is conceptualised via an upward-oriented vertical path image (17c-ii). This etymological hypothesis is corroborated by the fact that the synchronic variation of kó and kwɔ́ is indexed by age, i.e. older people tend to prefer the variant kwɔ́ which points to its more archaic status.

(17) Grammaticalisation of motion verb kwɔ́ ‘ascend’ to adverbial kó
(a) phonological reduction: kwɔ́ > kó
(b) morphosyntactic simplification: loss of verbal properties, e.g. inflection for tense, aspect, mood and the capacity to act as autonomous verb
(c) semantic processes:
   (i) generalisation: reduction to the path component (spatial)
   (ii) metaphor: up = extension of action (distribution, repetition etc.)

The syntactic context of this grammaticalisation is verbal serialisation of the asymmetrical type which is very vibrant in all Ring languages and a salient typological feature of Isu (Kießling 2004a, Kießling 2011). Asymmetrical serial verb constructions (Aikhenvald 2006: 21-22) are composed of one core or head verb which carries the major semantic load plus one or more verbal satellites or coverbs which tend to be reduced in this
coverbal role to one specific semantic component of their original full verb meaning which they contribute to the entire SVC. The serialisation in (18) is headed by the core verb bwọọ ‘burst’, which is followed by a series of four modifying coverbs: māḍā ‘throw away’ indicates the detrimental effect of the event on the patient, i.e. the roof of the hut, while the other three coverbs highlight various components of the path of the action, fyí ‘exit’ signalising a path out of a container, i.e. the hut, kwọọ ‘ascend’ indicating an upward direction of the path; and diạńić ‘penetrate’ relates the path to a centre or rather an obstacle, indicating that this obstacle is penetrated.

(18) Asymmetrical serialisation of one core verb and four coverbs:

\[
\text{bọọ} \quad \text{ngị} \quad \text{t-à} \quad \text{diýà} \quad \text{nái} \quad \text{kọ mámwi} \quad \text{yǔ}
\]

whenever 13.giraffes 13-D1 SO.want SO.stretch up 6b.necks 3pl

bwọọ māḍā fyí kwọọ diạńić yǔ ụtá ụ kástà.
burst throw.away exit ascend penetrate CFG 3.ceiling 3 7.hut
‘When the giraffes want to stretch their necks, they burst out immediately through the upper section of the roof of the hut.’

The combination of coverbs in asymmetrical serialisation contributes to blowing up the verbal piece to quite considerable size and complexity. Moreover, the verbal series itself could still be expanded by an outer layer of preposed and postposed adverbials. The internal order of constituents approximates consolidation in a template with fixed slots as represented in the maximal projection in table (21). Here, the verbal core is preceded by a smaller pre-core field and followed by a considerably larger post-core field. Both fields, pre-core and post-core, are subdivided into slots for coverbs and slot(s) for adverbials. Their linear arrangement with respect to each other reflects advancement in grammaticalisation in that the coverbs form an inner layer of elements grouped closer to the verbal core, whereas the adverbials which have lost verbal properties in their career as adverbs, e.g. the centrifugal marker yā in (18), form an outer layer, further removed from the inner layer and the core, as indicated by shading in the display.3

Table (21) captures the syntagmatic dimension of a synchronic continuum between the taxonomic categories of verb vs. adverb with three intermediary stages spelt out in (20). In a diachronic perspective, this continuum represents a channel of grammaticalisation in which coverbs tend to develop into adverbials in the course of syntactic reanalysis involving semantic transfer and subsequent adjustment (Heine & Reh 1984: 97-100). Reanalysis and adjustment in this case take the form of a gradual loss of constitutive verbal properties such as the capacity (i) to act as the single core of a verbal predication, (ii) to vary for aspect by an opposition of suffixes Ø or -i (perfective) vs. -ọ (imperfective), (iii) to receive tonal marking for the imperfective aspect and for subordination. The gradual loss of these properties results in a cline ranging from the status of a full-fledged verb with all essential verbal properties to a genuine adverb which lacks all verbal properties through three transitional stages defined by various degrees of loss of these verbal properties, representing degrees of adjustment after semantic transfer in the course of syntactic reanalysis and corresponding functionally to what has been termed “verbs” (Ansre 1966), “verboids” in Obolo (Rowland-Oke 2003: 269-74) or “preverbal modifying verbs” in Yoruba (Bamgbose 1974, 1982). Thus in Isu, full motion verbs such as kwọọ ‘ascend’ and

3 Both the external order of these fields and their internal organisation largely follow iconicity principles in that syntactic linearisation matches the real-world order of event components. Thus, coverbs which serve a precursive function precede the core verb, while termination and resultative coverbs follow.
tswí ‘descend’ whose verbal status is testified by their use as autonomous verbs in (19a-b), represent the first stage, the starting point of the development (20a).

(19) Autonomous usage of kwó ‘ascend, climb’ and tswí ‘descend’:
(a) mó mó kwó ká? fIy
1sg P1.FOC ascend 19.tree 19-OF
‘I have climbed a tree.’
(b) mó tswí yò ñá? ñsú
1sg descend CFG 5.country 5:5.Isu
‘I am descending to the country of Isu (e.g. from Aghem or Weh).’

In the next step, the motion verbs may undergo semantic reduction to their path meanings in coverbal use (20b), resulting in a situation of polysemy with a coexistence of autonomous verbs, kwó ‘ascend’ and tswí ‘descend’, and coverbs with a slightly more general semantic reading, kwó ‘up’ and tswí ‘down’, respectively, e.g. in (18). The transition from autonomous to coverb could be accompanied by phonological erosion, as is the case with both kwó and tswí which optionally reduce to ká and tsú, respectively, in coverbal usage, e.g. in (16a-d). As soon as the autonomous verb is dropped in the third step (20c), the remaining coverb still retains all verbal properties except for one, i.e. its syntactic autonomy, producing a new hybrid kind of word class, i.e. hybrid adverbial of type A. In the case of kwó and tswí, the autonomous verbs are not dropped, however, phonological erosion marks the functional split: while the full forms kwó and tswí could represent both usages, autonomous and coverb, the eroded forms are confined to the coverb usage and cannot be used as autonomous verbs. In the fourth step, the coverb starts losing verbal properties such as the capacity to receive segmental coding of aspect, while it retains those verbal properties marked by tone exclusively (20d). This step results in hybrid adverbials of type B which are distinct from type A adverbials by a slight progression towards the status of a prototypical adverb. In a terminal step, hybrid type B adverbials may be deprived of all residual verbal characteristics, resulting in genuine adverbs maximally distinct from verbs (20e).

(20) Stages of grammaticalisation of adverbials from prior autonomous verbs
verb > coverb > hybrid adverbial A > hybrid adverbial B > genuine adverb
(a) verb: retention of full syntactic autonomy
(b) coverb: semantic reduction, full retention of verbal properties
(c) hybrid adverb type A: loss of syntactic autonomy as verb, eventual semantic extension
(d) hybrid adverb type B: loss of segmental coding of aspect, retention of tonal coding of aspect and subordination
(e) genuine adverb: complete loss of all verbal properties
(21) Internal order of constituents in asymmetrical SVCs

<table>
<thead>
<tr>
<th>modal, manner</th>
<th>pre-</th>
<th>core</th>
<th>effect</th>
<th>path</th>
<th>termination</th>
<th>quality / result</th>
<th>realisation</th>
<th>ext. / delim.</th>
<th>deiosis / focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2*</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2*</td>
<td>+3</td>
<td>+4</td>
<td>+5</td>
<td>+6</td>
<td>+7</td>
</tr>
<tr>
<td>nám ‘still’</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bù</td>
<td>mà?à</td>
<td>‘throw’</td>
<td>fyì</td>
<td>dò?í</td>
<td>dzwàb ‘good’</td>
<td>kò‘in vain’</td>
<td>kò</td>
<td>wò CPT</td>
</tr>
<tr>
<td>kàm ‘again’</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>zù</td>
<td></td>
<td>‘go’</td>
<td></td>
<td>kwì?</td>
<td>nà ‘keep’</td>
<td>kwài ‘success-</td>
<td>tsò</td>
<td>yò CFG</td>
</tr>
<tr>
<td>twɔ? ‘really’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>tswì</td>
<td>mài ‘finish’</td>
<td></td>
<td></td>
<td>wài NEG</td>
</tr>
<tr>
<td>màŋ ‘just’</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tsɔŋ ‘always’</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>

4 This overview is an approximation, since the paradigmatic arrangement does not always reflect complementary distributions. Thus, items in slots marked by asterisks are definitely not in complementary distribution and could be combined, as far as their semantics allows. Moreover, “…” indicates non-exhaustive listing.
In this continuum, both markers, i.e. *kô* for extension of action and *tsô* for intension of action, together with their lexical sources *kwô?* and *tsô?*, respectively, cover stage one up to stage four (20a-d), as detailed in (22). Both develop spatial coverbs by semantic reduction to the path notion of their original meanings as autonomous motions verbs. These coverbs develop distinct allomorphs by optional phonological reduction. In their reduced allomorphic forms *kô* and *tsô*, the coverbs undergo semantic extension well beyond the spatial domain to cover notions such as distributive, spread impact, durative, completive, continuative, repetitive and pluractional on the side of *kô* and intensive, concentration, punctiliarity, singularity, immediate impact and urgent effect indication on the side of *tsô*. By morphosyntactic criteria these instances have advanced up to stage (20d) in grammaticalisation, i.e. they have gained the status of hybrid adverbials of type B by virtue of the extent of loss of verbal properties. While they lack the capacity to receive segmental coding of aspect, they still retain tonal marking for aspect and subordination, which prevents them to be categorised as genuine adverbs devoid of all verbal morphology. In their fuller forms *kwô?* and *tsô?*, the coverbs undergo similar semantic extensions beyond the spatial domain, albeit to remarkably different degrees. Thus, while the full form *tsô?*, in alternation to its reduced form *tsô*, is restricted to the intensive notion, *kwô?* could be used in free alternation to *kô* for any of the non-spatial notions. Since both, *kwô?* and *tsô?*, retain their capacity to form segmentally distinct aspectual stems in these non-spatial usages, they have to be categorised as hybrid adverbials of type A. Therefore, both of the hybrid adverbials *kô* and *tsô*, together with their lexical source verbs *kwô?* and *tsô?*, straddle the borderline between the word classes of coverb and hybrid adverbial which is marked by the dotted line in (22), representing an instance of heterosemy, as indicated by double-lining.

(22) Heterosemy of *kwô?* ~ *kô* and *tsô?* ~ *tsô*

<table>
<thead>
<tr>
<th></th>
<th><em>kwô?</em></th>
<th><em>kô</em></th>
<th><em>tsô?</em></th>
<th><em>tsô</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) verb</td>
<td>allomorphy</td>
<td>meaning</td>
<td>allomorphy</td>
<td>meaning</td>
</tr>
<tr>
<td>(b) coverb</td>
<td><em>kwô?</em></td>
<td>-</td>
<td>'ascend'</td>
<td></td>
</tr>
<tr>
<td>(c) hybrid adverb A</td>
<td><em>kwô?</em></td>
<td>-</td>
<td>'up'</td>
<td></td>
</tr>
<tr>
<td>(d) hybrid adverb B</td>
<td>-</td>
<td><em>kô</em></td>
<td>distributive, spread impact, durative, completive, continuative, repetitive, pluractional</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>tsô?</em></td>
<td>allomorphy</td>
<td>meaning</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>tsô?</em></td>
<td>-</td>
<td>intensitive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td><em>tsô</em></td>
<td>intensive, concentration, punctiliarity, singularity, immediacy</td>
<td></td>
</tr>
</tbody>
</table>

Similar processes of grammaticalisation via semantic generalisation accompanied by phonological reduction and loss of verbal properties, resulting in a situation of synchronic heterosemy, could be observed with the centripetal adverbial *wô* (see table 21, column +8) which derives from the deictic motion verb *bô* ‘come’ via an intermediary stage of reduction such as *bô* (Kießling 2011).5

5 Its centrifugal counterpart *yô*, on the other hand, represents a reflex of Proto-Bantu *gênd ‘go, walk’ (Guthrie 1970: 214, Bantu Lexical Reconstructions 3) or *g(e)nd ‘walk’ (Meeussen 1980: 55) which is reflected as *gîen ‘go’ or *gîen ‘walk’ in Proto-Eastern-Grassfields (Elias, Leroy & Voorhoeve 1984: 91, 103), otherwise absent from Isu.
4. Conclusion

The contribution of this article to the directionality topic is a diachronic one: it presents evidence of less common avenues of development of path verbs for verticality beyond the spatial domain and points to the importance of dynamicity as a source concept for the construal of non-dynamic concepts such qualities and quantities.

Both adverbials under discussion, i.e. *kā* and *tśā*, derive from prior motion verbs *kwā* ‘climb, ascend’ and *tswī* ‘descend’, respectively, which have undergone various processes of semantic extension and concomitant morphosyntactic and phonological reduction in their usage as coverbs in asymmetrical serialisation. Their diachronic development produces complex networks of polysemy and heterosemy, as detailed in (23-24). From a cognitive perspective, their etymological origin in the path verbs *kwā* ‘ascend’ and *tswī* ‘descend’ points to the importance of vertical motion schemata for structuring various non-dynamic and non-spatial domains of experience.

The polysemous adverbial *kā* and its development from the motion verb *kwā* ‘ascend’ is presented as a semantic network in (23), in synchronisation with all concomitant steps of phonological reduction and morphosyntactic adjustment. Thus, *kwā* ‘ascend’ follows a path of grammaticalisation leading in several successive stages of semantic extension from an autonomous verb over a coverb for upward path orientation to an adverbial for the same function and an adverbial for various non-spatial functions such as distributive, repetitive, pluractional, spread impact indication, durative, completive and continuative which could be subsumed under the label of extension. The etymological hypothesis linking the extensive adverbial senses with a prior sense of upward locomotion is supported by semantic and phonological evidence, e.g. by the synchronic coexistence of both forms, the original *kwā* and the reduced *kā*, for the extensive adverbial meanings, as seen in (16).

The semantic network of the adverbial *tśā* and its development from the motion verb *tswī* ‘descend’ is presented in (24) with all steps of phonological reduction and morphosyntactic adjustment. It shows that *tswī* ‘descend’ follows a path of grammaticalisation leading in several successive stages of semantic extension from an autonomous verb over a coverb for downward path orientation to an adverbial for the same function and an adverbial for various non-spatial functions such as intensive, concentration, punctiliarity, singularity, immediate impact and urgent effect indication which could be subsumed under the label of intension. The lack of synchronic coexistence of the original verbal form *tswī* and the reduced adverbial form *tśā* for some adverbial meanings points to a more advanced stage of grammaticalisation of *tśā*, as compared to *kā*.

Comparing both adverbials, *kā* and *tśā*, and their verbal sources, it is remarkable that at the starting point as well as at the (preliminary) end point of grammaticalisation, both contrasting partners are linked by antonymy. At the starting point, the full verbs *kwā* ‘ascend’ and *tswī* ‘descend’ act as lexical antonyms with respect to vertical path orientation. This antonymy is retained in the adverbials for non-spatial notions which developed from these lexical items: the antonymy of the vertical path orientation has been transposed to an antonymy of intensification or concentration vs. extension. In a parallel development on the phonological level, reduction leaves the antonymic adverbials with a minimal formal contrast in the initial consonant.
(23) Semantic network of adverbial kō derived from motion verb kw3? ‘ascend’

(24) Semantic network of adverbial tsō derived from motion verb tswf ‘descend’
The above findings are relevant to the understanding of directionality as a source concept in grammaticalisation in general and the cognitive motivations underlying the exploitation of verticality concepts in particular. The metaphorical construal of qualities, quantities, states, manners, modalities and aspects in terms of spatial models such as vertical orientation and container schemata has been observed in languages of widely divergent genetic affiliations worldwide on such a broad scale that the experience of space has been claimed to represent a basic model of thinking (Johnson 1987, Lakoff 1987: 283, Lakoff & Johnson 1980) and a major cognitive foundation of grammar in a universal perspective (Svorou 1994, Heine 1997: 35-65), conforming with the hierarchy of metaphorical “abstraction” presented in Heine, Claudi & Hünnemeyer (1991: 48, 159-160, 189) and reproduced in (25). This hierarchy claims that fundamental domains of human experience are linked in such a way that image schemata which structure a domain to the left in figure (25) are irreversibly used for metaphorical mapping into corresponding configurations in domains to the right, e.g. the domains of time and quality are understood in terms of image schemata which structure the domain of space, but not the other way round. Thus, the linear arrangement of these domains represents an order of cognitive accessibility which justifies the claim that domains to the right are more abstract than domains to the left.

(25) Hierarchy of “abstraction” in categorial metaphors (Heine, Claudi & Hünnemeyer 1991: 48, 159-160, 189)
PERSON > OBJECT > ACTIVITY > SPACE > TIME > QUALITY

More specifically, the case of the Isu adverbials kō for extension and tsō for intension and their etymological origin in the vertical path verbs kwā ‘ascend’ and tswā ‘descend’, respectively, testify the dynamic conceptualisation of qualities and quantities in terms of vertical path schemata: spatial and temporal extension of activities is “up”, whereas intensification, concentration and punctiliority is “down”. While this finding supports an affiliation of the category QUANTITY in the above hierarchy, possibly on a par with QUALITY, it is striking here to see that up-down path schemata are not always utilised in ways familiar from European languages when it comes to capturing scalarity. Thus, in contrast to the metaphorical transfer which maps “more” onto “up”, as observed in English (Lakoff 1987: 276f., 283; Johnson 1987: 121-124; Lakoff & Johnson 1980: 14-19), Isu partly uses the verticality schema in reverse orientation, i.e. usages of the path coverb tswā ‘descend’ and the hybrid type B adverb tsō which is derived from it attest to a mapping of “more” onto “down”. However, this usage seems to be restricted to qualitative aspects, i.e. scales of degree and intensity. Whenever strictly quantitative aspects are concerned, as in the case of spatial and temporal extension, the opposite mapping of “more” onto “up” is attested in usage of the hybrid type B adverb kō which is derived from kwā ‘ascend’.
Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF</td>
<td>clause focus/predication focus</td>
</tr>
<tr>
<td>CFG</td>
<td>centrifugal</td>
</tr>
<tr>
<td>CPT</td>
<td>centripetal</td>
</tr>
<tr>
<td>D1</td>
<td>proximal demonstrative</td>
</tr>
<tr>
<td>EXT</td>
<td>extension</td>
</tr>
<tr>
<td>FOC</td>
<td>focus</td>
</tr>
<tr>
<td>F1</td>
<td>hodiernal (near) future</td>
</tr>
<tr>
<td>F2</td>
<td>definite (distant) future</td>
</tr>
<tr>
<td>HAB</td>
<td>habitual</td>
</tr>
<tr>
<td>IMM</td>
<td>immediacy marker</td>
</tr>
<tr>
<td>IMP</td>
<td>imperative</td>
</tr>
<tr>
<td>INT</td>
<td>intension</td>
</tr>
<tr>
<td>IPF</td>
<td>imperfective</td>
</tr>
<tr>
<td>IS</td>
<td>impersonal subject</td>
</tr>
<tr>
<td>LOG</td>
<td>logophoric</td>
</tr>
<tr>
<td>NEG</td>
<td>negative</td>
</tr>
<tr>
<td>NS</td>
<td>non-subject</td>
</tr>
<tr>
<td>O</td>
<td>object</td>
</tr>
<tr>
<td>OBL</td>
<td>obligative</td>
</tr>
<tr>
<td>OF</td>
<td>out-of-focus marker</td>
</tr>
<tr>
<td>P1</td>
<td>hodiernal past</td>
</tr>
<tr>
<td>P3</td>
<td>indefinite past</td>
</tr>
<tr>
<td>pl</td>
<td>plural</td>
</tr>
<tr>
<td>POSS</td>
<td>possessive</td>
</tr>
<tr>
<td>sg</td>
<td>singular</td>
</tr>
<tr>
<td>S</td>
<td>subject</td>
</tr>
<tr>
<td>SJN</td>
<td>subjunctive</td>
</tr>
<tr>
<td>SO</td>
<td>subordinative</td>
</tr>
<tr>
<td>SVC</td>
<td>serial verb construction</td>
</tr>
<tr>
<td>VN</td>
<td>verbal noun marker</td>
</tr>
</tbody>
</table>

Numbers refer to person when followed by sg (singular), pl (plural), incl (inclusive), excl (exclusive) or log (logophoric). Otherwise, they refer to noun classes. Combinations such as 5:5 in the glossing line indicate the fusion of an associative linker referring to the nominal class of the possessor head noun, e.g. 5, and a subsequent nominal prefix of the possessed noun, e.g. 5, in a nominal possessive construction.

References


Spatial orientation in Nilotic languages and the forces of innovation

Angelika MIETZNER

Abstract

The aim of this paper is to show the multiple aspects and the variety of forces that influence language in the field of spatial orientation, directionality and perspective in Nilotic languages. Although the Nilotic languages do have close historical ties, the innovations in the above mentioned domains have resulted in a very heterogeneous picture of the lexical, morphological and syntactic means to express aspects of spatial orientation in the Nilotic languages of today.

1. Introduction

The Nilotic languages are a fairly well documented branch of the Nilo-Saharan phylum, spoken in Sudan, Ethiopia, Kenya, Uganda and Tanzania, distinguished into three branches, Southern, Western and Eastern Nilotic, whereby Southern Nilotic consists of the Kalenjin and the Omotik-Datooga Group. Western Nilotic is divided into the Burun, the Dinka-Nuer and the Lwoo branch and Eastern Nilotic is divided into the Bari, the Maa-Lotuxo and the Teso-Turkana languages.

Languages of all three branches are spoken in Kenya. The Western Nilotic branch is represented by the Luo speakers, who live in the area of Lake Victoria. Eastern Nilotic languages are represented by the Turkana, Sampur, Teso, Camus and Maasai. The southern Nilotic Kalenjin languages, which constitute the languages of interest in this article, are spoken in the western part of Kenya.

Recent research has revealed that Nilotic languages show a broad range of morphological means designating spatial orientation. After investigating spatial categories such as cardinal directions and reference frames, and deictic categories such as demonstratives or the deictic verbal morphemes itive and ventive, it has become clear that no general statements about the origin or spread of spatial categories in all Nilotic languages can be made. These categories are subject to specific external forces. Three of these forces will be discussed here.

2. The influence of the environment

2.1 Landmarks

The first factor that interacts with spatial categories is the influence of the geographical and physical environment on languages, which can clearly be shown when examining the origin of lexemes for cardinal directions. Examples (1) and (2) show the lexemes for the directions ‘North’ and ‘South’ in two different varieties of the Maasai language, one spoken north, and the other one south, of the Kilimanjaro.
(1) Matapato Maasai (E. Nilotic) Kisonko Maasai (E. Nilotic)
kópikop bottom ‘North’ (Bernd Heine p.c.) kópikop bottom ‘South’ (Bernd Heine p.c.)

(2) shúmata top ‘South’ (Bernd Heine p.c.) shúmata top ‘North’ (Bernd Heine p.c.)

Mount Kilimanjaro is the landmark that is prominent for both varieties to demarcate direction. Figure 1 illustrates this situation. While the Matapato Maasai, who live south of Mount Kilimanjaro, use the lexeme kópikop ‘bottom’ for north, and shúmata ‘top’ for south, the Kisonko Maasai use the lexemes vice versa: kópikop is used for south and shúmata for north. In both cases, speakers obviously refer to the top of the mountain, which is located in a southern direction for the speakers of one variety and in a northern direction for the other.

Figure 1. Cardinal directions in two different varieties of Maasai

Apart from the influence of geographical aspects, cultural aspects also play a role in the shaping of cognitive categories. This influence of the cultural context on spatial domains can also be demonstrated with the terms for cardinal directions.

2.2 Ethnonyms

Examples (3) and (4) clearly show that ethnonyms for neighbouring ethnic groups or groups that are somehow related to a speaker’s community are used as etymological sources for cardinal directions.

(3) Bianjida (S. Nilotic)
sukum-eera Sukuma-SUF ‘South’ (Rottland p.c.)

(4) taqam-eera Takama-SUF ‘North’ (Rottland p.c.)

The two examples show that the Bianjida orientate themselves in reference to the residential areas of other ethnic groups – in this case to the Takama and the Sukuma.

It is interesting to note that these lexemes have become lexicalised because today the Sukuma are neither direct neighbours nor located to the south of the Bianjida. The Takama, on the other hand, live west and not north of the Bianjida, in contrast to what the meaning of the cardinal direction leads us to assume.
What has happened here is that the formation of the lexemes for the cardinal directions can be attributed to a period of time prior to around 1700, when the new Takama kingdom moved from the coast westwards (Ehret 2002: 450f.). The Bianjida, who are the southernmost variety of the Datooga languages, were still on the way southwards. The Sukuma were located south of the Takama and later moved northwards, so that they came to the area where they presently live.

2.3 Cultural concepts

Another example – again from the domain of cardinal directions – showing the influence of cultural concepts on spatial domains is the use of an imaginary axis determining the direction crosswise to the important main axis.

In the Nilotic case, the main axis is defined by morning and evening, namely by the rising and the setting sun. In many Nilotic languages, the eastern direction is the one a person turns to for ritual prayers or the direction that is used for celebrations. In some Kalenjin groups, the eastern part of the house is used for the performance of celebrations. The coordinates for the cardinal directions in Kipsikiis are given in figure 2 and example 5.

Figure 2. Coordinates of the cardinal directions in Kipsikiis

```
(5) Kipsikiis (S. Nilotic) (Toweet 1979)
  (murat) kataam
    left 'North'
      murat-taai
    right 'South'
      koong’asiis
      eye of sun/god
      'East'
```

_Koong’asiis_ ‘east’ is highlighted as the basic direction by the use of the lexemes _muraattaai_ ‘right side’ and _murat kataam_ ‘left side’ for ‘South’ and ‘North’, respectively. The speakers must have considered East to be the basic direction to be able to conceptualise and name ‘South’ as ‘right’ and ‘North’ as ‘left’.
The same idea can be seen in figure 3 and example (6) from Belanda Bor. *Kùr túuró* ‘the place of the morning’ for ‘East’ and *kùr tíinó* ‘the place of the evening’ for ‘West’ are the two important directions that constitute the main axis of the spatial concept, emphasised by the two other directions which are simply referred to as *kùr sám* ‘the left place’ for ‘North’ and *kùr kús* ‘the right place’ for ‘South’.

*Figure 3. Coordinates of the cardinal directions in Belanda Bor*

![Image of the cardinal directions]

(6) Belanda Bor (W. Nilotic) (Storch Ms.)

<table>
<thead>
<tr>
<th>Direction</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>kùr túuró</em></td>
<td>place morning, ‘East’</td>
</tr>
<tr>
<td><em>kùr tíinó</em></td>
<td>place evening, ‘West’</td>
</tr>
<tr>
<td><em>kùr sám</em></td>
<td>place left, ‘North’</td>
</tr>
<tr>
<td><em>kùr kús</em></td>
<td>place right, ‘South’</td>
</tr>
</tbody>
</table>

This variety of concepts shows that cardinal directions as lexical concepts require a specialised, non-linguistic calculating process. Levinson (1997:3) mentions that “certain lexical concepts may force certain computation – a special property of cardinal direction terms being that they force continual background computation of orientation and location”.

3. Influence of a European lingua franca through language contact

I consider linguae francae to be a possible force which influences spatial categories or even expressions for spatial orientation. This will be illustrated by examples from the Nilotic language group, with special contemplation on the Southern Nilotic branch. In the languages of the world, two different models, the single-file-model and the face-to-face-model, are documented for perceiving and describing deictic orientation (Heine 1997).
Both models serve to describe the position of certain objects in reference to the location of the speaker, who is the deictic centre.

*Figure 4. Single-file-model and face-to-face model*

In this picture, the ball and the tree have to be defined in relation to the speaker. The arrangement of objects can be described according to the worldwide prevailing face-to-face model as *Ball is in front of tree*. Besides this construction, in some languages – including some Nilotic languages – the sequence would be described according to the single-file model as *Ball is behind tree* because the objects are assumed to have the same orientation as speaker A who is looking at these objects.

In order to exclude factors like the importance of an object, or that the inherent axis of an object triggers the preference for one of the models, I used simple objects like differently coloured cloth pegs, balls or geographical objects without an inherent front-back axis to examine how speakers of different Nilotic languages express spatial relations between two objects. The results are given in table 1.

*Table 1. Orientation models in Nilotic languages*

<table>
<thead>
<tr>
<th>Language branch</th>
<th>Language</th>
<th>Orientation model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Nilotic</td>
<td>Teso</td>
<td>single-file model</td>
</tr>
<tr>
<td></td>
<td>Turkana</td>
<td>single-file model</td>
</tr>
<tr>
<td></td>
<td>Maasai</td>
<td>single-file model</td>
</tr>
<tr>
<td>Southern Nilotic</td>
<td>Kipsikiis 1</td>
<td>single-file model</td>
</tr>
<tr>
<td></td>
<td>Nandi</td>
<td>single-file model</td>
</tr>
<tr>
<td></td>
<td>Tugen 1</td>
<td>single-file model</td>
</tr>
<tr>
<td></td>
<td>Marakwet 1</td>
<td>single-file model</td>
</tr>
<tr>
<td></td>
<td>Marakwet 2</td>
<td>single-file model</td>
</tr>
<tr>
<td></td>
<td>Bong’om</td>
<td>single-file model</td>
</tr>
<tr>
<td></td>
<td>Tugen 2</td>
<td>face-to-face model</td>
</tr>
<tr>
<td></td>
<td>Kipsikiis 2</td>
<td>face-to-face model</td>
</tr>
<tr>
<td></td>
<td>Kony</td>
<td>face-to-face model</td>
</tr>
</tbody>
</table>

It can be seen that three Eastern Nilotic speakers and six of nine Southern Nilotic speakers used the single-file model to describe the position of the objects. It is obvious that the single-file model is the most commonly applied model in Eastern and Southern Nilotic but worldwide it is relatively uncommon. According to Heine (1997: 12), it has been described in detail for Hausa but that it has also been reported to be common in a number of other African and non-African societies.
Nevertheless, three of the Nilotic speakers used the face-to-face model. After investigating the social life of the speakers, it was found that these three speakers were the only ones who had received a higher education at university. Sociolinguistic parameters play an important role for borrowing in contact situations, whereby the degree of fluency in a contact language, as well as the kind of contact, is important.

The sociolinguistic situation at African universities is very heterogeneous. Students with different language backgrounds have to interact in a lingua franca. When this meta-language is used, not only the linguistic material but also the conceptual structure is learned.

I assume that the Kalenjin speakers took over the face-to-face perspective due to their exposure to the lingua franca English. Of course, this assumption could only be verified after a long-term research with the same people in a university education context – a study that was not possible within my research. However, I was lucky to find a Marakwet speaker who had just finished form 4. When I interviewed him in 2007, he was using the single-file model to describe objects in a row, in accordance with the information I had received from other Kalenjin speakers.

Figure 5. Marakwet [Mark Bowen 14.7.2007]

(7) Marakwet (S. Nilotic)
mi kikombe taayu simu.
to be cup in front telephone
‘The cup is in front of the telephone.’

Figure 5 shows his statement in 2007. He was using the single-file model for describing the configuration “the cup is in front of the telephone”. Soon after our work he went to the University of Eldoret to study. I met him again in 2009 and during our work I noticed that he was now describing objects in a row in the face-to-face model (Figure 6, ex. (8)).

Figure 6. [Mark Bowen 10.4.2009]

(8) Marakwet (S. Nilotic)
mito ka omari letu tenge.
to be family Omari behind wall
‘The family of Omari lives behind the wall.’

This may of course not be sufficient for the verification of a hypothesis, but it at least strengthens the assumption of the internalisation of change of perspective models, and the resulting expression.
4. Extended functions of the deictic morphemes itive and ventive

The third interesting factor of spatial orientation in Nilotic languages is the use of the deictic morphemes which convey itive and ventive and their extended functions. I will illustrate how speakers expand the use of a morpheme with a designated function to acquire new semantic functions.

These deictic morphemes are a salient feature of Nilotic verbal morphology and they are prototypically used for describing direction towards (9) or away (10).

(9) Kony (S. Nilotic) (10) Kony (S. Nilotic)
    rang’-u!                 rang’-te!
    pour.IMP-VEN             pour.IMP-ITV
    ‘Pour towards me!’       ‘Four away!’

But apart from this, they are also used for other semantic categories, extending far beyond directional or deictic meaning, as shown in the following. In many contexts, ventive and itive morphemes can be described to have an altr

The ventive morpheme (but not the itive morpheme) may have an attenuative function in Teso, as seen in (13). In this example the verb combines with the ventive suffix. An attenuative interpretation is limited to punctual and durative verbs.

(11) Päri (W. Nilotic) (Andersen 1988: 88)
        ùbúr    á-njúnn-ô
    Ubur    C-cut+ITV+AP-INTR
    ‘Ubur came to cut’

(12) Päri (W. Nilotic) (Andersen 1988: 88)
        ùbúr    á-njútn-ô
    Ubur    C-cut+VEN+AP-INTR
    ‘Ubur went to cut’

Another very surprising function of the itive morpheme is exemplified by the Kony example in (14), ‘He plants maize and beans in the same row’. It was very important for the language assistant to explain that the seeds are not mixed in the container before planting but that they are mixed in the row by throwing one hand of maize and then one hand of beans into it. It seems to be decisive that the action is carried out with two patients simultaneously. If the verb was used without the itive morpheme, the mixing of beans and maize would have taken place before planting.

(14) Kony (S. Nilotic) (Mietzner 2009: 191)
    ø-lak-te        ba:nt-e:k    maka:nt-e:k.
    3sg-plant-ITV    maize.PL    beans.PL
    ‘He is planting maize and beans in the same row.’
Apart from the functions just mentioned, many other semantic functions can be attributed to the directional morphemes. Map 1 displays all semantic functions that were found in the respective languages.

Nilotic, and here especially Kalenjin, seems to be a language group which – as I would call it – play with the deictic morphemes. The more I investigated the extended functions of the directional morphemes, the more I found. Further investigations have shown that not only Nilotic languages but also Afroasiatic languages like Somali have extended the use of directional morphemes beyond their core function.

In Somali, the direction towards or away from the deictic centre is expressed by the two adverbs soo ‘towards’ and sii ‘away’. Examples (15) and (16) illustrate the polyfunctionality of the directional morphemes: the ventive adverb combined with the imperative verb ‘come’ can express ‘come and sleep here’ or ‘get some rest (while travelling towards)’ or ‘go have a rest (and then come back)’. The same array of interpretation is attested for the itive adverb.

(15) Somali (E. Cushitic) (Claudi 2012: 82 (this volume))
soo seexo
VEN lay.down:IMPSG
i. ‘Come sleep over here!’
ii. ‘Get some rest (while you’re travelling towards here)’
iii. ‘Go have a rest (and then come back here)’

(16) sii seexo
ITV lay.down:IMP
i. *‘Go sleep over there!’
ii. ‘Get some sleep (while you’re travelling away from here)’
iii. ‘Get some sleep while I’m gone!’ or
‘Have a rest (until I come back)’

In Oromo, the directional adverbs gadi ‘up’ and ol ‘down’ are also polyfunctional by nature; as shown in examples (17) and (18).

(17) Oromo (Cushitic) (Owens 1985: 230)
barc’úmáa gadi-n baase
stool down-I took out
‘I took the stool out’

(18) Oromo (Cushitic) (Owens 1985: 230)
mana-tt ol gále
house-LOC up returned
‘He returned home from outside’

Admittedly, these two examples do not show the same polyfunctionality as the Nilotic examples do, but this may be attributed to the fact that I have investigated directional morphemes in Nilotic in detail, but not in Oromo. It might be worth investigating whether in other languages like Oromo the directional morphemes are also used in non-directional or non-spatial contexts.
Map 1. Semantic functions of the deictic morphemes itive and ventive in Nilotic (Mietzner 2009: 208)
I propose that spatial categories are predestined to become polyfunctional. After they have at first only been used metaphorically in a non-spatial context, they can become more frequent and another reading of the morpheme is established. These orientational metaphors are well known and described by Lakoff and Johnson (1981).

5. Conclusion

In any language, change or innovations are triggered by various forces or factors. The semantic field of spatial orientation in the Nilotic languages is an area where recent innovations can easily be observed.

The innovations in the domains of cardinal directions, orientation models and deixis / deictic morphemes have resulted in a very heterogeneous picture of the lexical, morphological and syntactic means used to express aspects of spatial orientation in the Nilotic languages of today. These observations are in sharp contrast to the close historical ties that we know to exist between the individual Nilotic languages.

It might be possible to reconstruct the proto-lexicon, which has been done at least for eastern and southern Nilotic languages, as well as steps made for western Nilotic and Proto-Nilotic. But it is completely impossible, for example, to hypothesise what the Proto-Nilotic terms for ‘North’, ‘South’, ‘East’ or ‘West’ might have been.

The heterogeneous, and possibly unstable, situation in the domain of spatial orientation might be attributable to external influences or forces, namely (a) the geographical setting in which a speech community is situated, (b) sociolinguistic factors like educational background and exposure to the European lingua franca and (c) a language internal change. These forces have resulted (a’) in manifold expressions for cardinal directions, (b’) in a swap of orientation models from the common Nilotic pattern to the European pattern by some speakers, and (c’) in an incredible polyfunctionality of the deictic morphemes. These morphemes have been inherited from Proto-Nilotic but they have acquired various additional functions, far beyond the expression of ‘movement towards’ and ‘movement away’, in the synchronous languages.

Abbreviations

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>antipassive</td>
</tr>
<tr>
<td>C</td>
<td>completive</td>
</tr>
<tr>
<td>IMP</td>
<td>imperative</td>
</tr>
<tr>
<td>INF</td>
<td>infinitive</td>
</tr>
<tr>
<td>INTR</td>
<td>intransitive</td>
</tr>
<tr>
<td>Itv</td>
<td>itive</td>
</tr>
<tr>
<td>LOC</td>
<td>locative</td>
</tr>
<tr>
<td>SG</td>
<td>singular</td>
</tr>
<tr>
<td>SIM</td>
<td>simultaneity</td>
</tr>
<tr>
<td>SUF</td>
<td>suffix (unknown function)</td>
</tr>
<tr>
<td>VEN</td>
<td>ventive</td>
</tr>
</tbody>
</table>
References


Directionality as a basic principle in Otjiherero verb constructions

Wilhelm J.G. MÖHLIG

1. Introduction

From the perspective of Otjiherero, the term directionality refers to at least two different concepts:

1st Semantic directionality. It is primarily related to the basic meanings of the verbal constituents of an utterance and only secondarily to the overlying syntactic patterns.

2nd Perspective directionality. It is mainly connected with the inflectional system of verbs. This kind of directionality has a spatial and a temporal dimension.

To a certain degree, the rules for the application of the two directionalities operate independently, but influence each other when overlapping. Since in general linguistics the syntactic patterns of simple sentences – SVO, VSO etc. – have played an important role, the question may be raised what the role of syntax in the view of Otjiherero is.

Semantic directionality is pre-conceived in the basic meanings of verbal roots. Furthermore it is conditioned by verbal derivations and the reflexive pronoun ri. A speaker is obliged to observe this basic system when formulating correct statements, irrespective of his personal pragmatic view on a specific topic that he may wish to express. The basic meanings of the verbs often trigger prepositional phrases (PP) at the syntactic level. These are alternatively expressed by three locative classes: 16 (pa-) ‘on to’, 17 (ku-) ‘to, towards’ and 18 (mu-) ‘into.’ In so far, the syntactic patterns are subordinate to the semantic conditioning.

When dealing with perspective directionality in the last section of this paper, I myself raise the question, in how far the method of working with single pre-formed sentences in English as the meta-language has influenced the results. In following such approach, the role of pragmatic (deictic) factors upon directionality remains largely unexplored, although the relative freedom of a mother tongue speaker to manipulate perspective directionality in his speech let suggest that he/she responds to pragmatic stimuli. We have worked together with a mother tongue speaker in choosing our examples and thus were able to discuss these to a certain degree within situational contexts. The working with documentary texts would have been the better option in terms of directionality, however considerably more time consuming.

The locative classes are also used to introduce adverbial phrases. In these cases, the meanings are: pa- ‘on’, ku- ‘at’ and mu- ‘in’. In writing Otjiherero examples, I follow the official orthography with the following additional devices: high tones and falling tones are marked by an accent as á ~ à, extra high tones as á and down steps as á.
In the Otjiherero examples of this paper the following syntactic model is used:

In the first section of my paper, I will discuss semantic directionality, in the second section I will focus on the more complex phenomena of perspective directionality.

2. Semantic Directionality

In this paragraph, first the directional features of the verbal roots will be discussed. Thereafter the categories of verbal derivations and the role of reflexivity will be looked into.

2.1 Directionality attached to the basic meanings of the verbal roots

The basic meanings of the verbal roots can be classified into three general semantic categories:

- actions including motions e.g. -yenda ‘to go’, physical activities e.g. -ungura ‘to work’, mental activities and sensations e.g. -tjívá ‘to know’, -zúvá ‘to hear’, communication e.g. -púra ‘to ask’;
- processes e.g. -pyá ‘to burn’, -yérá ‘to shine’, -róka ‘to rain’;
- state including position and qualities e.g. -haama ‘to sit’, -úra ‘to be full’, -tumba ‘to be rich’, -pwá ‘to be handsome’.

The inherent directionality of verbal roots and stems is closely related to their syntactic capacity to trigger a specific number of complements (see the diagram above). The units of the syntactic pattern provide, so to speak, the vehicles for carrying the underlying semantic concepts like agent, beneficiary, target (goal), whereby the basic syntactic pattern of Otjiherero is S-V-O.

The verbal roots and stems show the following types of semantic arrangement:

i) agent – action – goal:

In this basic type, the verbal action of an agent is directed towards a goal:

(1) táté má; tjangá ombapíra
‘father is writing a letter’

In the example, father is the agent and his action of writing is directed towards the result of writing, namely a letter.

ii) agent – action – goal – beneficiary:

If an addressee of the action expressed by a basic root is to be added, this operation is syntactically performed by an additional PP in combination with locative class 17:

(2) táté má; tjangá ombapíra komítiri
‘father is writing a letter to the teacher’
iii) agent – action – beneficiary – goal:
In rare cases, the basic verb triggers a sentence where the beneficiary or addressee is syntactically placed between the action and the goal:

(3) mitiri má: hongá omuātjé Otjihéréró
‘the teacher is teaching the Herero language to a child’

iv) agent – action – goal – directional:
Many transitive verbs trigger a direct object plus a prepositional noun phrase expressing directionality. Such noun phrases usually consist of a noun which is pre-prefixed by one of the locative class prefixes pu- [cl. 16] ‘on’, ku- [cl. 17] ‘towards’, mu- [cl. 18] ‘in, into’.

(4) okutúa embo potjiríro
‘to lay down the book on a table’

(5) okutjanga ombapíra komítiri
‘to write a letter to the teacher’

(6) okunwá oméva mondondú
‘to drink water from the river’

v) agent – action – directional
Some frequently used intransitive verbs may also trigger a prepositional noun phrase expressing directionality:

(7) taté mé: yenda kongandá
‘father is going to the village’

The verb -yenda without a complement means ‘to be able to walk’. If a direction is to be specified, the verb triggers a prepositional phrase with a noun in class 17 ku-. Verbs expressing mental activities also fall under this category. Examples of this kind are -kambúrá ‘to believe’ and -kúmbá ‘to pray’. Specifications as ‘to believe in’ or ‘to pray to’ demand prepositional phrases with one of the locative classes as complements:

(8) ovandu ve kambúrá mú ’Ndjâmbí
‘the people usually believe in God’

(9) ovandu ve kúmbá kú ’Ndjâmbí
‘the people usually pray to God’

In sentences with a spatial or directional complement a further locative adverb is not tolerated.

(10) * ovându vè kúmbá kú ’Ndjâmbí mongéreka
‘the people usually pray to God in the church’

In such a case, one could choose for instance combinations with a position verb like -kárà ‘to stay’:

(11) ovându vè kúmbá kú ’Ndjâmbí okukára mongéreka
‘the people usually pray to God when staying in the church’
f) recipient – sensory process – stimulus:
Particularly in verbs of sensory perception, the direction may be reversed from a syntactic object towards an addressee in subject position.

(12) Taté mé: múnú okakambe
‘father sees a horse’ in the sense of ‘catching sight of a horse’

In this statement, the subject is the addressee of a sensory perception triggered by the appearance of a horse.
If the directionality shall be directed parallel to the syntactic string from the agent in subject position towards the goal in object position (see type 1) above, a different verb has to be used, namely -tárá ‘to look at’.

(13) taté má tárá kakambe
‘My father is looking at a horse’

Unlike -múná, the verb -tárá describes a willful act directed towards a goal. When using this verb the semantic formula is indeed: agent – action – goal as the first type.

Apart from their capacity to bind a specific number of arguments at the syntactic level (valence), some basic verbs contain already a directional component at the semantic level. For instance, the language possesses a class of intransitive motion verbs. Some of them like -túka imply a direction ‘to jump up, to fly up’:

(14) ozondéra zá túka
‘the birds flew up.’

If the direction upwards has to be specified, a locative complement can be added by a PP without influencing the inherent directionality:

(15) ozondéra zá túka meyûrú
‘the birds flew up into the sky’

If the birds are flying towards a specific place or target, this has to be expressed by using the applicative derivation -túkírá and a prepositional phrase with ku-:

(16) ozondéra má-zé túkírá kongandá
‘the birds are flying towards the village.’

Transitive and intransitive verbs with a directional component cannot be qualified by a locative adverbial phrase. However it is possible to add a non-locative adverb. For instance:

(17) taté mé-yá kongandá tjimanga
‘my father is coming home all of a sudden.’

Different from other languages, in Otjiherero many basic motion verbs do not express any inherent directionality, but only motion as such. The verb -yenda ‘to go’ refers to the bodily capacity of walking (see 7 above). If the direction of walking is to be expressed, a prepositional phrase using one of the three locative classes has to be added:

2 The directional quality of the basic verbs in Otjiherero often differs from the meta-languages. Therefore additional information is needed for a correct evaluation.
3 The adverbial phrase meyûrú is marked by two class prefixes mu- ‘class 18 = in’ and e- ‘class 5’, whereby mu- expresses directionality and e- a nominal singular.
Directionality as a Basic Principle in Otjiherero Verb

(18) okuyenda kongandá⁴
    ‘to go to the village’

(19) okuyenda momévá⁵
    ‘to go into the water’

Even such a concept as -púpá ‘to flow’ only expresses a quality of the water to distinguish it, for instance, from standing waters:

(20) omévá má:yé púpú
    ‘the water flows’

If a direction is to be indicated a construction with two verbs applies.

(21) omévá má:yé púpú okuyenda komuronga
    ‘the water is flowing towards the river’ verbally: ‘the water flows going to the river’.

Reflexive

In combination with the reflexive pronoun ri the usual direction from the agent to the action is turned around: first from the agent to his action then from there to the agent as the recipient (beneficiary) of the action.

(22) omundu wé ri kóndo
    ‘the man cut himself’

The semantic formula is: agent/beneficiary (Refl) – action.

When the reflexive pronoun ri is added, some transitive verbs like -hóngá ‘to teach’ change their meaning:

(23a) ovakázéndú má:vé hóngó okutéréká omboróto
    ‘the women are teaching (how) to bake bread’.

(23b) ovakázéndú má:vé ri hóngó okutéréká omboróto
    ‘the women are learning to beak bread’

The semantic formula is: agent/beneficiary (Refl) – action – goal.

2.2 Semantic directionality attached to derivational morphemes of verbs

Otjiherero, like other Bantu languages, has a catalogue of derivational morphemes – verbal extensions – that can be attached to the verbal roots. Their functions are to alter the meaning of the roots in a categorized way and to influence the valence of the verbs. Despite their capacity to change the meaning of verbs, only few derivational morphemes also influence the semantic directionality in comparison to their underlying verbal roots. Some of the typical cases will be discussed in the following.

Passive

For instance, the passive marked by the allomorphs -wá, -éwá, -íwá leads to an inversion of the verbal complements at the syntactic level. In comparison to the basic utterance, its passive

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⁴ kongandá is prefixed by locative class 17 ku-.
⁵ momévá is prefixed by locative class 18 mu-. 
derivation shifts the former object to the subject position and adds eventually the former subject agent by a PP initiated by the preposition í:

(24)  táté má, toná okakambe.
    ‘My father is beating a horse’

    ‘The horse is beaten by my father.’

The semantic formula of the verbal phrase is: recipient – action – agent

Applicative
A frequent verbal derivation is the applicative with the allomorphs -era, -ira, -ena, -ina. At the syntactic level it adds a further argument (NP) to the verbal phrase. At the semantic level it has at least two readings depending on the meaning of the basic root.

First: In combination with a transitive action verb its reading is ‘to perform the action for somebody’:

(25)  táté má, túngú ondjúwó   > táté má, túngiré omítiri ondjúwó
    ‘my father is building a house’ > ‘my father is building a house for the teacher.’

At the semantic level, additional information concerning the beneficiary of the action has been added, but the direction as compared to the basic sentence is not changed.

Second: In combination with a transitive directional verb the reading of the applicative is ‘to perform the action on behalf of somebody’:

(26) omuzandú má, tjangá ombapíra komítiri
    > omuzandú má, tjangéré mamá ombapíra komítiri
    ‘the boy is writing a letter to the teacher’ > ‘the boy is writing a letter on behalf of his mother to the teacher.’

The semantic formula of the VP is:
agent – action – beneficiary – goal – directional recipient

This kind of an applicative construction does not tolerate a locative adverbial like for instance ‘writing a letter to somebody inside the house’. Therefore sentence (27) is not correct:

(27)  *omuzandú má, tjangeré ombapíra komítiri mondjúwó
    ‘a boy wrote a letter to the teacher inside the house’

If a directional addressee and a static locative are to be combined in one sentence, Otjiherero has a device that is comparatively rare in Bantu languages. A locative passive construction has to be chosen, where the static locative takes the role of the syntactical subject of the sentence and the agent as the logical subject is expressed by a prepositional phrase with the preposition í.

(28) mondjúwó má:mú tjangérwá ombapíra komítiri i o’muzandú
    ‘inside the house there was written a letter to the teacher by a boy’.
Directionality as a Basic Principle in Otjiherero Verb

Reciprocal
A few verbs with the suffix -sana express crossing directions, i.e. the verbal action is directed to an addressee who, at the same time, is the agent of the same action directed towards the previous agent.

(29) ovazandú nówakázona má-vé vátérásana.
   ‘The boys and girls are helping each other.’

At the level of the basic verb -vátéra ‘help’ two sentences would be needed to express the full meaning of sentence (29), namely

(30a) ovazandú má-vé vátéra ovákázona
     ‘the boys are helping the girls’ and

(30b) ovákázona má-vé vátéra ovazandú
     ‘the girls are helping the boys’.

This shows that the reciprocal derivation has an effect on the directionality and how the underlying facts are expressed in words.

The semantic formula of the VP is:
agent A/beneficiary B ± action ± beneficiary A/agent B

Causative
The causative with the alternative suffixes -isa and -eka has the syntactic function to add a further argument to the verbal complex. The additional argument follows the verb stem and fulfils the task of the real agent, whereas the former agent of the basic sentence becomes the causer agent in the derived sentence, e.g.

(31a) omítiri má-i tjangá ombapíra
     ‘the teacher is writing a letter’ +

(31b) ovanâtjé má-vé tjangá ombapíra
     ‘the children are writing a letter’ >

(31c) omítiri má-i tjangisa ovanâtjé ombapíra
     ‘the teacher has the children write a letter’.

The sentences (31a) and (31b) show two different agents in subject position before the verbal complex. The causative transformation in sentence (31c) reduces the role of the agent in sentence (31a) to the role of a causer and re-defines the agents of sentence (31b) as caused agents. The syntactic slot of a caused agent is behind the verbal complex, which means a directional inversion of the basic semantic formula:
causer – action + causative – agent – goal.

3. Perspective Directionality

Besides semantic directionality, Otjiherero shows a second type of directionality that concerns the speaker’s perspectives with regard to a specific speech act in terms of approaching and departing. Approaching means ‘towards the speaking source’ (in German her), departing means ‘away from this reference point’ (in German hin). This looks somehow like ventive and itive. However, distinct from these universal categories, the directional antagonism of
approaching and departing underlies the speaker’s creativity and therefore may be handled, manipulated or simply organized by him or her in every speech act, whereby the most important tool is the tense system. Apart from the temporal structure of the tense system (see section 3.1), in particular the following three elements are of importance:

- final vowel assimilation, also known as vowel harmony (see section 3.2),
- the application of the directional morpheme *ka*, so called *ka-movendi* (see section 3.3),
- prosodological features in tenses referring to past events (see section 3.4).

3.1 Organization of the verbal inflection into time units

Like other Bantu languages, the Herero tense system is organized in time units with the speech event as the reference point. Apart from the two aspeclual categories imperfective and perfective, the tenses are conceptually organized in four time units:

- the **current time unit** (present and immediate future), see (32)
- the **indefinite (remote) future**, see (33)
- the **recent past** referring to events that occurred in temporal proximity before the current time unit, see (34)
- the **remote past** referring to events that occurred far from the current time unit, see (35)

Examples:

(32) Current Time (Present, Immediate Future) mátú múnú oukambe ‘we see horses ~ we are about to see horses.’

(33) Indefinite (remote) Future má-átú múnú oukambe ‘we will eventually see horses.’

(34) Recent Past twá: múnú o’úkambe ‘we just saw horses.’

(35) Remote Past twa múna o’úkambe ‘we saw horses long time ago.’

As measured against the physical temporal scale, a speaker may manipulate the time units of his/her speech, in determining to a certain extent what he/she considers to be recent and what remote and which temporal perspective he/she wants to choose for a specific verbal event:

(36) mátú yá muhúká ‘we will [definitely] come tomorrow’

(37) má-átú yá muhúká ‘we will [perhaps] come tomorrow’

In sentence (36), the speaker is confident that the event will take place. In sentence (37), the speaker politely disguises a more or less negative statement in the sense of ‘we will definitely not come tomorrow’. The negative sense becomes evident by the combination of the adverbial *muhúká* ‘tomorrow’ with the remote future *másítú* ‘we will eventually’.

3.2 Vowel Copying

Many verbal roots, not all, have the inherent capacity to assimilate the final vowel to the vowel of the preceding syllable. However, vowel copying is restricted to tenses that express a
temporal or mental proximity to the act of speech. In table 1 you will find the list of tenses where vowel copying occurs.

Table 1. Tenses triggering final vowel assimilation:

<table>
<thead>
<tr>
<th>Tense</th>
<th>Temporal Relation to Current Time</th>
<th>Vowel Copying Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Present</td>
<td>current time</td>
<td>má!tú kóhó</td>
<td>‘we are washing’</td>
</tr>
<tr>
<td>2: Indefinite Future</td>
<td>unit following current time</td>
<td>má!átú kóhó</td>
<td>‘we will wash some time’</td>
</tr>
<tr>
<td>3: Recent Past</td>
<td>unit preceding current time</td>
<td>twá! kóhó</td>
<td>‘we just washed’</td>
</tr>
<tr>
<td>4: Simultaneous</td>
<td>dependent on current time</td>
<td>amá!tú kóhó</td>
<td>‘whilst we were/are washing’</td>
</tr>
<tr>
<td>5: Narrative</td>
<td>following dependent current time</td>
<td>ná!tú kóhó</td>
<td>‘and then we washed’</td>
</tr>
<tr>
<td>6: Pluperfect</td>
<td>dependent on unit immediately preceding current time</td>
<td>atwá! kóhó</td>
<td>‘we had already washed (when this event occurred)’</td>
</tr>
</tbody>
</table>

Final vowel assimilation is connected with tenses that, like the inner side of a fence, denote definite temporal boundaries towards (= approaching perspective) the time of speaking from both sides of the temporal continuum, i.e. either past or future events. If these temporal boundaries are crossed by the use of tenses of the remote past or by the use of a *ka-movendi* (see next section), a verbal statement becomes indefinite and remote. In other words, for a speaker the verbal event appears in a perspective beyond “the fence of definiteness” (= departing perspective). In these cases the final vowel is -a.

(44) mbá! hongó o’vánátjé [ndínó]
‘I taught the children [today]’

(45) mba hónga o’vánátjé [rukúrú]
‘I taught the children [long time ago]’

Both statements refer to the past. In (44) the past is seen as close to the time of speaking. In (45) it is seen as remote. In both cases, the adverbials are not necessary to convey the different meanings. Without the adverbials the speaker has certain discretion in evaluating the past, whether he wants to present it as recent or remote. However when he uses these adverbials, the different tenses are obligatory for him.

3.3 Ka-Movendi

The morpheme *ka* may be inserted before any inflected verb form. Although it does not occur as an independent verb, by comparison it is easy to define that its general meaning is ‘to move away from the place of speech’. With this perspective of increasing distance, the morpheme *ka* is antagonistic to the principle of increasing proximity as expressed by vowel copying. In other words: Vowel copying implies a movement towards the act of speech, whereas the morpheme *ka* implies a movement away from the act of speech. Therefore both linguistic tools exclude each other. Vowel copying is suppressed when *ka* is used. Whereas a speaker can manipulate the system of time units to a certain extent, once he has opted for a specific tense, the rules of final vowel assimilation rigidly apply unless he/she decorates the statement with the insertion of a directional *ka*. See examples (46) and (47).

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6 or, in the case of dependent tenses, proximity to the place of activity expressed in the main verb.
Although the foremost function of the morpheme *ka* is to express spatial directionality, there are instances where it evidently has a temporal connotation as can be seen in the examples (48) and (49).

(48) ka nwá omaíhí
‘come on now, do drink the milk!’

(49) mé, ka nwá omaíhí
‘I am about to drink milk.’

In both sentences *ka* expresses an immediate future and not a movement away from the place of speaking. In my opinion these cases are examples where, at least for an external observer, the spatial perspective that is usually connected with the *ka* changes to a temporal perspective.

3.4 Prosodological features in tenses referring to past events

When the tense of a verbal complex refers to a historical time unit, the first complement is marked with an extra high tone:

(50) twá rísire o'zóngombe
‘we recently fed the cows’ : Recent Past Perfect

but:

(51) má!tú risá ozongombe
‘we are feeding the cows’ : Present

Usually this rule is very rigid and cannot be manipulated by the speaker except in the negated habitual ‘I usually do not ...’.

(52) ká!tu nú omakáyá
neg+SbjC drink habitually ‘we are nonsmokers’ (smoke) tobacco

(53) ká!tu nú o’mákáyá
neg+SbjC drink habitually ‘we are nonsmokers’ (smoke) tobacco

In sentence (52) the complement is not marked by an extra high tone. This signalizes to the listener that the perspective is directed towards the future. The implication is: ‘We are nonsmokers and this fact will remain so.’ In other words: for us, nonsmoking is a matter of principle.

In example (53), the same negative habitual tense is used, but this time it is followed by a complement that does bear an extra high tone. For the listener this marker directs the perspective towards the past. Now, the statement implies that ‘we never smoked during the time units before the current time. However, it does not exclude that we may start smoking in
the future.’ In other words: Nonsmoking is not a principle for us, but only a historical matter. Whereas the first complement of a positive habitual is always marked by an extra high tone, the negative only if the speaker wants to express that he/she ‘up to now did not ...’. Such a statement leaves it open whether he/she wants to continue this habit in the future. If the complement after this tense is not marked, the negative habit extends definitely into the future.

So far, I interpret this prosodological contrast as a change of the temporal perspective from past towards future. However, after having reflected on this issue, I am no longer sure whether it really falls under the second category of ‘perspective directionality focussed on time and location of the speech act’ or whether it is perhaps a third type of directionality dependent on pragmatic factors. In my view the question of pragmatic directionality as an own type besides the two others has to be scrutinized further with the help of coherent texts. The result may be that still other cases of this sort will be discovered.

4. Intermediate results on directionality

In summing up one can conclude that Otjiherero, like other Bantu languages of the south west region, disposes of at least two types of directionality:

Semantic directionality primarily related to the basic meanings of the verbal constituents of an utterance is so deeply rooted in the language structure that it is beyond the personal creativity of a speaker. For historical considerations it will be interesting to know whether other Bantu languages of the region share this system.

Perspective directionality is the domain of the inflectional verb system of Otjiherero. It is based on the interplay of two antagonistic perspectives concerning the movement of verbal events: The first, which I call the perspective of distance, runs from the place and time of speaking towards the event described. The second, which I call the perspective of proximity, runs from the event described towards the place and time of speaking.

Both types of directionality use the following two sets of linguistic tools:

First: The basic and more stable components of a spatial orientation of verb phrases are the basic meanings of verb stems (roots and derivational morphemes) and the time units of the inflectional system. They dominantly serve to organize the perspective of distance. For a speaker, as the creative producer of a text, the basic meanings are preconceived entities which he/she cannot manipulate. However, for him/her the system of time units is negotiable to a certain extent.

Second: The more flexible components of giving a specific utterance an additional perspective in terms of spatial and temporal proximity and distance are the antagonistic instruments of vowel copying, ka-movendi and, to a minor degree, of prosodic object marking. These tools serve both perspectives, i.e. distance and proximity, whereby vowel copying is subordinate to the system of time units. Once a speaker has selected a specific time unit, the feature of vowel copying is pre-conditioned. However it can always be influenced with the help of the directional ka-movendi.

My methodological approach of mainly working on the basis of isolated preconceived sentences leaves two aspects of directionality unanswered.

According to my material, there is no clearcut boundary between space and time. The transition from one concept into the other appears to be gradual. I gave some examples in (48) and (49). In my view, ‘directionality’ implies a movement away from the source of speech towards some distance. However, in the vowel harmony-system of Otjiherero also the opposite movement towards the source of speech becomes manifest. In this light, directionality appears to be part of a more comprehensive system of ‘perspectivity’ that all
human communication underlies. At least in the southwest Bantu languages this is visible. We need, however, much more comparative studies in this special field of linguistics to come to any general conclusions. It appears to be a common feature that the actual activity of speaking is the point of reference for all dimensions.

The second aspect of directionality that according to my experience needs further clarification is the existence of a third type of pragmatic directionality. In my opinion its exploration needs a different empirical base. Instead of isolated sentences, coherent texts are necessary. Such texts should not belong to the traditional genre of oral literature. Instead, discourse texts where at least two participants are involved (e.g. debates at court, discussions at party assemblies) are needed.

Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<td>AdvP</td>
<td>adverbial phrase</td>
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<td>Aux</td>
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<td>TAM</td>
<td>tense-aspect marker</td>
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<td>VC</td>
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References


Directionality in Lingala

Nico NASSENSTEIN

Abstract

The present article analyzes concepts of directionality in Kinshasa-Lingala, a variety of Lingala spoken in the capital of DR Congo. It provides a classification of motion, direction and manner constructions in Lingala and explores the use of the locative element *na* (which is often called a preposition in most grammars) in motion constructions, the use of (intrinsic) directional adverbial particles, a short analysis of right-left constructions in Lingala, as well as verbal strategies of expressing directionality with a focus on applicative constructions (both expressing directed motion and cognitive direction). A short insight into Lingala speakers’ mental maps, based on an orographic concept (thus based on real altitude), and some examples of directional applicative use in language contact situations will be presented before a general conclusion summarizes the principal ideas.

1. Introduction

Lingala, a Bantu language of group C, spoken in DR Congo, is a contact language classified by Guthrie as C36d in 1971 and divided into the varieties Kinshasa-Lingala (C30b) and Bangala (C30a) by Maho in 2009. The following analysis of directionality in Lingala is based on the variety spoken in and around the capital Kinshasa. Most of the grammars that are available deal with a standard variety of Lingala, which is not spoken anymore, and differ from the varieties of Lingala currently in use (Guthrie 1966; Van Everbroeck 1969; Bwantsa-Kafungu 1970). Only two grammatical descriptions by Meeuwis (1998; 2010) can be considered adequate grammar sketches of modern Kinshasa-Lingala.

Figure 1: Classification of Kinshasa-Lingala

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1 The presented data was collected to some extent during two field research trips to Kinshasa in 2009 and 2010 when working on Lingala-based youth languages, while some other examples were collected and discussed with Lingala speakers in Cologne. I wish to thank especially Benjamin Bolole for his efforts and support. Please note that all French language samples or words used in Lingala samples are mostly adapted to Lingala orthography in order to match the variety of French as spoken in DR Congo.
Since classic itive and ventive markers as well as distal markers (as described by Seidel for Yeyi in 2008) are not found in Lingala, the present paper rather deals with general concepts of directionality found in Lingala than concentrating solely on verbal morphology.

Lingala is spoken by several million people in DRC, the Republic of Congo, Angola, and the diaspora. Most of the speakers live in Congo-Kinshasa where Lingala is one of the four national languages. Owing to language policy and predominantly negative language attitudes directed at it, Lingala it is not taught in school and does not play a role in socioeconomic or political life.

Figure 2: Lingala speech area (Nico Nassenstein 2010)

2. Motion, direction and manner in Lingala

The following paragraph of the analysis of concepts of directionality in Lingala aims at defining how motion, direction and manner can be classified in Lingala. Motion can be considered an act of physical displacement (as expressed by verbs like ‘go’, ‘pass’), and direction can be understood as a concept that delimits the trajectory taken by the entity in motion (for example ‘into’, ‘up’, ‘around’) as it is also described by Talmy (1985), Schaefer and Gaines (1997) and Gaines (2001). Manner is often seen as a feature of complex motion defining how motion is carried out, for instance when people want to differentiate between ‘creeping’ or ‘running’.

2 Nonetheless, ethnologue mentions (together with Bangala speakers) only seven million speakers worldwide; due to own investigations and discussions with Lingala speakers, I would assume a much higher number of speakers though.
2.1 Lingala as a verb-framed language

All four African language phyla have been described as languages in which basic motion events tend to be verb-framed (Schaefer & Gaines 1997) which means that motion (‘go’ etc.) and direction (‘up’ etc.) conflate in one verb, opposite to satellite-framed languages in which motion is expressed by the verb stem followed by a grammatical satellite which specifies direction (German gehen über vs. French traverser, cf. Schaefer & Gaines 1997). However, a clear classification seems to be impossible since most languages feature both tendencies to some extent.

Though Lingala can be considered to be a verb-framed language as far as basic motion is concerned (example 1), Lingala differs from many other Bantu languages by using a frequent locative element na in almost all constructions expressing motion, including verb phrases, prepositional phrases and general expressions of orientation (cf. chapter 3). Very often the element na is simply described as a preposition (which would make Lingala more of a satellite-framed language, as soon as it carries a notion of ‘direction’). But even if na would be considered a satellite, it does not carry explicit directional meaning, and thus differs from the ordinary function of satellites such as ‘in’ or ‘out’ in languages such as English. Na is rather a marker of locality indicating something like ‘location of ...’ since it can stand for contrasting directions (cf. examples (2a) and (2b) respectively (3a) and (3b)).

(1) Mw-ána nangáí a-ko-mát-a na Lembá.
Cl1.1-child POSS1SG 3SG-FUT-ascend-IND LOC Lembá
‘My child will go up to Lembá (a district of Kinshasa).’
(Lit.: My child will ascend location of Lembá.)

(2a) To-ko-kít-a na ndáko nabísó.
1PLS-FUT-descend-IND LOC house POSS1PL
‘We will descend to our house.’
(Lit.: We will descend location of house.)

(2b) To-ko-mát-a na ndáko nabísó.
1PLS-FUT-ascend-IND LOC house POSS1PL
‘We will ascend to our house.’

(3a) Mo-níngá wáná a-bim-i na kélási.
Cl1.friend DEM 3SGS-exit-PRS LOC Cl9.school
‘That friend exited from the school / got out of the school.’

(3b) Mo-níngá wáná a-kót-i na kélási.
Cl1.friend DEM 3SGS-enter-PRS LOC Cl9.school
‘That friend entered the school.’

When comparing the examples above, it becomes obvious that na does not express direction when standing alone (since direction is verb-innate in Lingala), but it is obligatory for all motion verbs except kowííta ‘come from’ and kokende ‘go’ as demonstrated in (4a) and (4b). This might have something to do with the argument structure of these verbs, as well.
2.2 Strategies of expressing manner

In Bantu languages, manner is usually expressed by a range of different syntactic constructions as pointed out by Gaines (2001). When motion and direction appear in a main clause, manner often appears in a subordinate clause (case 1) or as a nominalized verb form or infinitive (case 2). If manner is expressed in the main clause, then motion and direction are usually found in a subordinate clause (case 3; cf. Gaines 2001:29). When analyzing the case of Lingala, however, strategies differing from the above three cases are detected. Interestingly, case 2 does not appear to be an option to mark manner in Lingala.

In Lingala, manner in directed motion can either be expressed by adverbial phrases or adverbs (the most common possibility), by locative + infinitive constructions as also found in Kiswahili (Gaines 2001) for a limited number of cases or by verb serialization.3 These three strategies are demonstrated and analyzed in the following, especially as the first and third one do not constitute very common ways of expressing manner in Bantu languages.

A common possibility of expressing manner in Lingala is the use of adverbial phrases and adverbs such as **malémbé** ‘slowly’, **mbángo míngi** ‘at high speed’ etc. (5a and 5b), whereas Gaines (2001) claims that this strategy has not been extensively discussed for many other Bantu languages yet (since manner is often expressed by verb constructions).

(5a) **A-mát-ákí na kolín óyo mbángo míngi.**
3S GS-ascend-PAST LOC hill DEM speed much

(‘He ascended this hill fast / at high speed.’)

(5b) **Bá-na ba-kót-í na kelási malémbé.**
CL2-child 3P LS-enter-PRS LOC CL9.school slowly

(‘The children entered the school slowly.’)

The second possibility for a limited number of cases is adding an infinitive by using the already mentioned locative element **na**. While a similar technique is reported for Kiswahili and seems to be widely spread in this language, this is not the case for Lingala. This strategy is limited to some few lexemes such as **na kotámbola** ‘walking, going slowly’, **na kolémbe** ‘creeping, exhausted’ or **na kokíma** ‘running, fast’ as demonstrated in (6a) and (6b).

(6a) **E-léngé móko a-bim-í na n-dáko na ko-támbola.**
CL7-youth One 3SGS-exit-PRS LOC CL9-house LOC INF-walk

(‘One young man exited from the house walking.’)

(6b) **E-léngé móko a-bim-í na kómbola.**
CL7-youth One 3SGS-exit-PRS LOC INF-walk

(‘One young man walked out of the house.’)

3 Owing to the fact that there does not exist any consecutive marker **-ka-** as shown by Gaines for Gikuyu and by various scholars for other languages, which would otherwise most likely be used for verb serialization.
The third method of expressing manner is verb serialization, i.e. a juxtaposition of verbs with strict word order that lacks morphological marking of rank and conveys a single action. In first position, the manner verb (e.g. an equivalent to ‘run’ or ‘walk’) is placed and in second position the verb containing direction and motion has to follow (7). Both verbs have to be used in the same tense (compare example 8).

Concerning the expression of manner, verb serialization is described as a main method for languages like Ema, an Edoid language (see Schaefer & Gaines 1997), but has not been discussed for any Bantu languages yet. A common corresponding technique in other Bantu languages is either verb coordination (by making use of a connecting element ‘and’ between the manner verb and direction+motion) or using a consecutive marker such as -ka- in Gikuyu.

The three possibilities illustrated above have so far been found to be the only ones to be able to express manner in directed motion acts. In difference to many other Bantu languages, manner cannot be conveyed in subordinate clauses, e.g. by adding prefixes such as consecutive or coordination markers (cf. Gaines 2001) to verb forms. In general, Lingala’s verbal morphology is rather poor and prefixed markers (other than subject markers, two tense markers and a reflexive marker) do not occur at all.

3. The locative element na

3.1 Directionality of prepositions

The frequently used locative element na can either stand in phrases expressing static spatial expression (when following the scheme non-motion verb + innate meaning ‘in, inside, on, at, by’ as shown in example 9a) or can make a phrase take a directional notion when following motion verbs (following the scheme motion verb + innate meaning ‘to, towards, from, around’ as shown in example 9b). In some way, the element na which occurs with both static spatial expression and directional spatial expression can be analyzed as a general substitute for lacking locative classes since it can create all possible spatial concepts just by its simple presence.

But furthermore, na functions as a proper directional marker when forming complex prepositions (prepositions consisting of two elements) being added to a static preposition such

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4 Lingala’s nominal class system does not have locative classes in contrast to many other Bantu languages. Moreover, the element na could be compared with the locative markers katika or -ni in Kiswahili; the locative katika is often described as a simple preposition, while -ni is a more complex locative marker.
as epái (‘with sb.’, cf. 10a). The complex preposition epái na (‘to, towards’ when talking about people, cf. 10b) becomes a directional preposition as soon as the element na is added and requires then a motion verb instead of a static verb.

(9a) Na-söm-bäki ba-míngá òyo na zándo.
1SGS-buy-PAST CL2-mango DEM LOC market
‘I bought these mangos at the market.’

(9b) Ba-nđeko nabísó ba-kít-äki na n-dáko.
CL2-brother POSS1PL 3PL-descend-PAST LOC CL9-house
‘Our brothers descended to the house.’

(10a) To-ňi-ak-a káka āwa epái mamá Marceline.
1PLS-eat-HAB-IND only here at/with Mrs. Marceline
‘We eat only here at Mrs. Marceline’s (house).’

(10b) Lóbí wâná to-zông-äki epái na ba-nđeko nabísó.
Yesterday DEM 1PLS-go.back-PAST at/with LOC CL2-brother POSS1PL
‘The day before yesterday we got back to our brothers’ (house).’

The same is revealed when taking a look at the preposition pô na (‘for’) which consists of the conjunction pô ‘because, so (that)’ (11a) and the locative element na which serves as some kind of directional marker in this complex preposition, too. Although the preposition pô na is not a locative preposition, it can be regarded as a preposition showing a certain destination (to a person or concept). The element na seems to constitute a directional element when forming directional prepositions (or prepositions pointing out a destination) out of both static locative elements (10b) and conjunctions (11b).

(11a) Na-ko-bët-a bangó té pô ba-zal-ì ba-níngá nangáí.
1SGS-FUT-beat-IND 3PLO NEG because 3PLS-be-PRS CL2-friend POSS1SG
‘I will not beat them because they are my friends.’

(11b) Ba-to ya Goma ba-sál-äki yangó káka pô na ngáí.
CL2-person CONN Goma 3PLS-do-PAST 3SG0:INAN only for LOC 1SG0
‘The people of Goma did that just / intentionally for me.’

3.2 Using (intrinsic) directional adverbial particles in Lingala

When analyzing the six adverbial particles of orientation likoló ‘up’, na sé ‘down’, libosó ‘forth’, na sıma ‘back’, na gòsh ‘left’ and na drwát ‘right’ in motion (as in ‘he is going up’ / ‘she is running back’), it quickly becomes obvious that there are differences concerning the absence and presence of locative markers. Whereas libosó ‘forth’ and likoló ‘up’ (see examples 12 and 13) do not need any locative marker na, both na sé (‘down’, cf. 14) and na sıma (‘back’) do need this element. Considering also ‘left’ (na gòsh) and ‘right’ (na drwát) in this classification (a further, more detailed analysis is provided below), one has to mention that both do need na. It is important to add that this difference appears only in motion, but not in static orientation. Nevertheless, it does not depend upon which motion verb (motion or motion+direction) is chosen since no matter which one is used these orientation concepts always remain identical.
(12) Kénd-é libosó, ndeko! Ko-tíkala áwa té!
  go-IMP forth Cl1a.brother INF-stay here NEG
  ‘Go forth, (my) brother! Don’t stay here!’

(13) Sóki a-mát-i likoló, a-ko-món-a bisó!
  if 3SGS-ascend-PRS up 3SGS-FUT-see -IND 1PLO
  ‘If he goes up (climbs up), we will see you!’

(14) Bá-na ba-key-i na sé pó ba-zal-áki ko-lika ngáí.
    CL2-child 3PLS-go-PRF LOC down because 3PLS-be-PAST INF-search 1SGO
  ‘The children went down(stairs) because they were looking for me.’

One can assume that this general difference – whether a locative element *na* is used or left out – among these concepts of orientation can be referred to a semantic association with the two concepts *libosó* and *likoló*. Isolated as lexical items the two words can also stand for ‘the front’ (or figuratively mean ‘future’) and ‘the space above, the sky’ (figuratively also expressing ‘heaven’, see example 15). The presented example demonstrates static space, but works in the same way for motion contexts.

(15) Ba-nzelu ba-zó-yémb-a likoló.
    CL2-angel 3PLS-PROG-sing-IND up/in.heaven
  ‘The angels are singing above.’
  ‘The angels are singing in heaven.’

The fact that *libosó* and *likoló* are often used in figurative speech (other than *na sé* ‘down’ or *na síma* ‘behind’) with a less concrete meaning (‘future’ and ‘heaven’ as more abstract concepts than e.g. ‘down’ or ‘behind’) could be considered one possible reason for the absence of the locative marker.

3.3 ‘Right and left’-differences in locative concepts

If we take a closer look at the two concepts ‘right’ and ‘left’ in Lingala, one can state that non-motional (static in space) and motional left-right conceptualization reveal some interesting differences. While static right-left concepts (‘on the left of the tree there are flowers’, see examples 16 and 17) often make use of standard Lingala expressions without any locative element, motional right-left concepts (‘turn left!’) are usually expressed by French loan words following the Lingala locative *na* as shown in (18) and (19).

(16) N-zéte e-zal-i lo-bóko ya mo-báli ya mó-túka.
    CL9-tree 3SGS:INAN-be-PRS CL11-hand CONN CL1-man CONN CL3-car
  ‘The tree is to the right (side) of the car.’

(17) Mo-báli a-télem-áki lo-bóko ya mw-ásí ya bar.
    CL1-man 3SGS:stand-PAST CL11-hand CONN CL1-woman CONN bar
  ‘The man stood to the left (side) of the bar.’

It is noticeable that ‘right’ and ‘left’ in non-motional space in standard Lingala are associated with a feminine and masculine ‘hand’. Kant analyzes the semantic associations of ‘left’ and ‘right’ terminology by saying that “one side, the right, has indubitable advantage in dexterity and perhaps also in strength” as cited by Levinson (2003:11). A semantic left-right dichotomy can often be traced back to cultural eating habits, behavioral roles in traditional
family life and numerous other domains. One can realize that in many cases ‘right’ and ‘left’ terminology refers to a dichotomy of ‘masculine-feminine’, ‘strong-weak’ or even ‘good-bad’ concepts in language.

Examples (18) and (19) demonstrate that ‘right’ and ‘left’ in motional orientation are expressed in a different way. It is possible that this happens for frequency reasons due to the fact that the French loan words gósh and drwát are for instance used for traffic and description of cognitive maps when explaining the way – mainly situations in which direction (‘go left, turn right …’) is more important than static space. So it is obvious that these French expressions are known to almost every Lingala speaker and that they are thus employed in the mentioned (motional) contexts. The fact that the classic ‘hand of …’-metaphors (16 and 17) are preferred in order to express static location might point out that static location (‘the cat is on the left side’) is not as often used in traffic situations (etc.) and therefore less present in daily life when for instance explaining directions. That might be the reason why static space is rather conveyed by standard and semantically loaded forms (less frequency and more complexity). One can see that the locative na is used no matter if the verbs are directed motion verbs (19) or just neutral motion verbs as used in (18).

(18)  Ba-ningá ba-kend-ákí na gósh, na drwát té!
CL2-friend 3P LS-go - PAST LOC left LOC right NEG
‘The friends went left, not right!’

(19)  Mo-yíbi óyo a-kím-í na drwát, ba-ko-kánga ye?
CL1-thief DEM 3S GS-run-PRS LOC right 3P LS-FUT-catch 3SGO
‘This thief ran to the right side, will they catch him?’

In these examples the locative marker na replaces the French locative adposition à (‘at, in, to’) that is usually employed in terms such as à gauche and à droite ‘on/to the left/right’, most likely due to their phonological similarity.

4. Direction expressed by verbal constructions

4.1 Using applicative forms in order to express direction

A frequent possibility of expressing location (direction / static space) in verbal forms in Bantu is the applicative derivation. Seidel (2008:189) states for some Bantu languages like Yeyi that the use of this verbal derivation influences the assignment of roles to locative arguments turning them into a source (thus changing directions). Although this is not the case in Lingala, regular applicative constructions (containing a spatial concept) make locative (/ adpositional) markers like na (20) unnecessary since they require an additional argument, which follows the first argument in juxtaposition (21) without locative markers. When using applicative, no more locative markers are used although directed motion is expressed. Applicative and locative markers thus annul each other. The following examples (20) and (21) must be classified as directional since a directional verb is used, whereas (22) shows static location since a non-motion verb is used. It is interesting to mention that the applicative as a strategy of expressing static space (23) seems to work only for causative verbs.

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5 For instance since traffic signs, traffic rules and driving lessons are usually held in French. Furthermore, many Chinese mopeds have an included sound producing mechanism repeating allez à gauche / allez à droite ‘go to the left / right’ as soon as the direction indicator is activated. This leads to the conclusion that people are used to hearing (and employing) French directions every day.
DIRECTIONALITY IN LINGALA

(20) Mw-ásí a-kít-is-í ngáí na zándo.
   CL1-woman 3SGs-descend-CAUS-PRS 1SG LOC market
   ‘The woman made me get off [the taxi] at the market.’

(21) Ba-kít-is-el-ákí ngáí douzième rue.
   3PLS-descend-CAUS-APPL-PAST 1SG twelfth street
   ‘They made me get off [the taxi] at 12th avenue.’

(22) Mo-yémbi Koffi a-bin-is-ákí bísó na Olympia.
   CL1-singer Koffi 3SGs-dance-CAUS-PAST 1PL LOC Olympia
   ‘The singer Koffi made us dance in Olympia (a concerto hall in Paris).’

(23) A-bin-is-el-í bísó Olympia.
   3SGs-dance-CAUS-APPL-PRS 1PL Olympia
   ‘He made us dance in Olympia.’

The sentences (21) and (23) provide evidence that there are no differences in locative concepts expressed by applicatives concerning the question whether motion+direction (21) or just static position (23) is expressed. The main question is now why applicative is used at all if we can express the same message by using a locative (/adpositional) phrase (as in 22). Applicative as a locative (directional / static) marker is not obligatory in these cases. Until now I do not have any proof for that, but it could be possible that sentences with applicative and two juxtaposed arguments (23) focus and emphasize the location (‘he made us dance IN OLYMPIA’) while sentences with a locative phrase instead (22) put emphasis on the action (‘he MADE US DANCE in Olympia’). The only hint which could underline this idea is the fact that an enumeration such as ‘he made us dance in Paris, in Berlin and Kinshasa’ in which the emphasis lies without doubt on the mentioned locative concepts, would be translated exactly as a-bin-is-el-í bísó Paris, a-bin-is-el-í bísó Berlin, a-bin-is-el-í bísó Kinshasa (cf. example 23), thus emphasizing the spatial concept by using applicative constructions.

4.2 Applicatives as a method of directional emphasis (not requiring arguments)

As pointed out by Seidel (2008:189), applicative forms (as derivational operators) usually sanction the addition of an argument to verbs, as we have also seen above for locative concepts. Lingala exhibits a couple of specific cases in which applicatives are not obligatory since almost the same meaning can be expressed by a non-derivational verb with exactly the same argument structure. In the examples discussed below, no further argument is required (compare 24 and 25) as done in regular applicative use (this is why one could call these applicatives “zero-argument applicatives”). Two examples for those zero-argument applicative verbs are kolèkela ‘overtake (a car)’ and kobandela ‘start over again, repeat’. Both verbs – though only the first one is a motion verb – express some sort of directional or destination-oriented action.

(24) Lék-á (na⁶) mó-tuka óyo!
   pass-TM  LOC  CL3-car DEM
   ‘Overtake this car!’

⁶ The element na can be placed here, but is not obligatory.
A possible explanation of this phenomenon could be that the directional nature of the verb is emphasized and its goal or destination highlighted (25).

The following examples (26) and (27) demonstrate that the argument structure of the applicative sentence is the same as of the non-derivational sentence. The obvious function of applicative is to intensify the action by letting it start again and repeating it (in a ‘circular direction’).

Furthermore, it is interesting that the verb kosömbele carries the meaning ‘buy from somebody’ (in German *bei jemandem kaufen*) in (29), which is not the expected meaning for applicative constructions. It follows a direction contrary to usual applicative direction (28) (instead of ‘buying FOR somebody’ a directional change to ‘buying FROM somebody / at somebody’s place’). Besides that, it is noticeable that an ordinary applicative kosömbele ‘buy for somebody’ does need an argument; as a zero-argument applicative it does not, meaning something very different. As a possible explanation could serve the idea that the function of applicative constructions is not argument addition or extension in these examples, but simply a directional emphasis.

4.3 Direction without motion (cognitive direction)

Applicative constructions must be considered morphemes expressing motion + direction (as shown above), but also direction without motion (in German direction without motion could be expressed in *an jemanden denken* ‘to think of sb.’, *jemanden riechen* ‘to smell sb.’ etc.) which could be described as a kind of cognitive motion as it deals with perceptive verbs or verbs of cognitive (30a/b) or emotional (31) action towards a person. These applicative forms always require at least one argument (30b) or one additional argument (31).

(30a) Na-ndim-í yangó té.
     1SGS-accept-PRS 3SGO NEG
     ‘I have not accepted that.’

(30b) Na-zó-ndim-el-á binó lisúsu té.
     1SGS-PROG-accept-APPL-IND 2PLO again/more NEG
     ‘I do not believe (in) you anymore.’
5. Orographic cognitive maps in ‘up-down’ concepts in directed motion

Another topic, which should be mentioned when analyzing directionality concepts in Lingala, are the mental or cognitive maps of ‘up-down’ concepts when describing the geographic location of sites or the direction to sites (such as cities, regions or geographic precisions in general). In many European languages such as English or German mental maps in ‘up-down’ concepts like I am going up to Norway or fährst du hoch nach Schweden? (‘Will you go up to Sweden?’) seem to be compass-oriented which means that motion + up in directional contexts associates ‘going north’ and motion + down stands for ‘going south’. In most of the cases this system is consistent for languages like German. This mental compass-oriented system could be seen as bound to cardinal directions (north, south etc.), but depending upon a subjective frame of reference (for frames of reference see Levinson 2003:26ff.) because e.g. Germany is considered north (called ‘up’) when standing in Rome, but not when standing in Sweden (as called ‘down’). Mental maps in Lingala are neither compass-oriented nor just considering exceptional landmark strategies such as flow direction of rivers. The mental maps of people when describing ‘up’ and ‘down’ directions exhibit orographic orientation, which means that the actual altitude of the destination is compared to the speaker’s altitude (a system of altitude differences). This functions in most of the cases without problems. So no matter if located north or south, motion + up is used when directed to a place higher in altitude while motion + down is used when direction is pointed to a place lower in altitude (see examples 32 and 33). For further understanding it has to be mentioned that the university of Kinshasa lies on top of a hill with a view on the city, whereas Gombe is a district of Kinshasa located lower in altitude next to the river.

1SgS-FUT-ascend-IND LOC university  
‘I’ll go up to the university.’

(33) Na-ko-kít-a na Gombe.  
1SgS-FUT-descend-IND LOC Gombe  
‘I’ll go down to Gombe.’

When specifying direction following or going contrary to rivers’ flow path, the strategy remains the same, also for flow paths of rivers. Since it is logical that sites located upriver are higher in altitude (as you have to move contrary to the river’s flow direction to get there), direction to these sites is referred to as ‘going up/ascending’ (34). To sites further downriver motion is logically directed to as ‘going down/descending’ (35). When saying something like ‘I go to the river’ and the river in its bed is orographically lower than the speaker’s point of view, one will also use the motion+direction verb kokíta ‘descend’ (36).

(34) Bá-na nangáí ba-ko-mát-a na Mbandaka.  
CL2-child POSS1SG 3PLS-FUT-ascend-IND LOC Mbandaka  
‘My children will go up(river) to Mbandaka.’  
⇒ Speaker: located in Kinshasa (downriver of Mbandaka, lower altitude)  
⇒ Direction: to Mbandaka (upriver, higher altitude)
 Altogether, the German (and often European) system can be classified as a frame of reference based on subjective view with orientation to cardinal directions (and to a geographical mental map). The mental map in Lingala as being orography-oriented follows entirely the landmark strategy because it can be considered completely environment-centered (bound to orographic terrain).

6. Direction and language contact

6.1 Directional Lingala applicatives in French

Due to intense language contact between Lingala as the first national language in Congo and French as the official language certain phenomena such as applicatives expressing direction (without motion) are sometimes integrated in French verbal constructions in order to emphasize the ‘direction’ or the beneficiary of a specific action (as shown in (37b)), although this morpheme is not obligatory and could be left out without any problems. This morpheme would only be used with ditransitive verbs, but never in intransitive or transitive (see 37a) constructions. Anyhow this applicative form in Congo French is not productive, but limited to a couple of verbs with which it is used by a certain number of people, mostly with rudimentary knowledge of French.

(37a) Achet-ez des bières!
       buy-2PL INDARTPL beers
   ‘Buy some beer(s)!’

(37b) Achet(e)-el-ez moi une bière!
       buy-APPL-2PL 1SGO INDART beer
   ‘Buy a beer for me / buy me a beer!’

6.2 Language contact with Kikongo

Kikongo-Kituba, like Lingala one of the four national languages spoken in DRC and the widely used creole variety of the macro language Kikongo, is not a language which makes use of applicatives in order to express the destination or beneficiary of an action. However, an increasing number of cases in spoken Kikongo can be attested in which direction or destination is not expressed by using prepositions or locative elements and a following nominal phrase (the Ground), but instead by derivational applicative constructions (38). One possible reason for this development might be intense language contact with Lingala over the
last years in rural areas where Kikongo was heretofore spread. As shown above, Lingala makes regular use of applicative constructions in order to express destinations and directed motion.

(38) (Kik.:)
Bètu ta-kwend-il-a ba-tatā ba-mamā.
1P LS FUT-go-APPL-IND CL2-father CL2-mother
‘We will go to (see) the parents / old respectful people.’

7. Conclusion

The present paper classifies Lingala as a typical language expressing motion+direction in the verb form and using a locative marker na between motion+direction verb and the ground. This locative marker is frequent in Lingala and might substitute specific locative classes as found in some other Bantu languages.

As far as the expression of manner is concerned, we stated that we can use the following three techniques (presented in an abstract structural form here) which are uncommon as far as realization of manner in Bantu languages is concerned (see Gaines 2001), especially concerning employed verb serialization and the use of adverbial phrases.

serialization (juxtaposition): [MANNER] + [DIRECTION+MOTION]
adverbial phrases: [DIRECTION+MOTION] + [MANNER]
LOC + infinitive: [DIRECTION+MOTION] + [MANNER]

An analysis of the locative marker na demonstrated that it must be considered as a non-directional locative because it is used in several different directional contexts; above all it cannot be seen as a directional element in itself due to the fact that it does not convey a directional meaning. But as we have seen, when added to static prepositions (and also a few conjunctions) it can serve as a directional marker turning these static prepositions into directional prepositions. When analyzing relative adverbial orientations (‘going up’, ‘running down’ etc.) in directed motion it becomes obvious that those are usually following the marker na, with two exceptions (‘up’ and ‘forth’) whose specific notion can be referred to an additional, semantically more complex association as ‘heaven’ and ‘future’ (and thus differs from other, non-specified relative orientations). ‘Right’-‘left’ constructions in spatial concepts reveal (as shown above) that directed motion (‘go left!’) makes use of the locative marker na and French loan words because these expressions are already well known for many people from traffic regulations (showing a high frequency in use); furthermore one makes use of traffic landmarks (red lights, crossing streets etc. for which French expressions are used) when explaining the way, so it is clear that one employs the French expressions for one self’s orientation. When dealing with static ‘right-left’ concepts, the less common Lingala expressions (lit. ‘feminine hand’ and ‘masculine hand’) are used.

Also applicative constructions have been checked for their form of expressing direction and could be classified into three groups, first a group of regular applicatives expressing direction by adding a (locative) core argument (instead of non-applicative forms with adpositional / adverbial phrases). The second intended purpose of using applicatives is directional emphasis when using a limited number of verbs, which do not require an additional argument when derived to applicatives (zero-argument applicative). The third designated use of applicatives in directional motion with cognitive, emotional or perceptive verbs characterizes the expression of direction without motion, always requiring an additional argument.
An attempted comparison of Lingala speakers’ mental maps (when expressing directed motion in ‘up’-‘down’ concepts) with those of speakers of German or English revealed that the cognitive map of Lingala speakers is orographically-oriented depending constantly on the relation of actual altitude (terrain), i.e. between the subject’s position and the focused position (higher located places require motion+up, lower located ones motion+down). This can be understood as an environment-centered frame of reference (see Levinson 2003) whereas European cognitive maps make use of reference frames based on a subjective point of view concerning the cardinal directions (north requires motion+up, south requires motion+down), based on a mental geographical map.

In a further preliminary approach two examples of a grammatical loan of applicatives as a directional marker into French and Kikongo, two geographically overlapping languages in Lingala-dominated terrain, have been demonstrated. This could underline the dominant status of Lingala as a medium of communication in and around Kinshasa because usually applicatives do either not exist or not express direction or destination in French and Kikongo. Speakers who are used to Lingala applicatives as directional morphemes might find non-applicative verb forms in French or Kikongo semantically too weak (to express direction) and thus apply this derivation. Whether more similar contact phenomena between Lingala and the surrounding languages do exist might be subject of further investigation.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<th>Meaning</th>
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<tr>
<td>APPL</td>
<td>applicative</td>
<td>INTERROG</td>
<td>question marker</td>
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<tr>
<td>CAUS</td>
<td>causative</td>
<td>LOC</td>
<td>locative</td>
</tr>
<tr>
<td>CL</td>
<td>nominal class</td>
<td>O</td>
<td>object</td>
</tr>
<tr>
<td>CONN</td>
<td>connective (associative)</td>
<td>PAST</td>
<td>recent past</td>
</tr>
<tr>
<td>DEM</td>
<td>demonstrative</td>
<td>POSS1SG</td>
<td>1st person singular possessive</td>
</tr>
<tr>
<td>FUT</td>
<td>future</td>
<td>PROG</td>
<td>progressive</td>
</tr>
<tr>
<td>IMP</td>
<td>imperative</td>
<td>PRS</td>
<td>present (expresses both present and shortly committed actions (cf. also Meeuwis 1998))</td>
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<tr>
<td>INAN</td>
<td>inanimate</td>
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<tr>
<td>IND</td>
<td>indicative</td>
<td>S</td>
<td>subject</td>
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<tr>
<td>INDART</td>
<td>indetermined article</td>
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<td>INF</td>
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References


Two multifunctional locative and directional prepositions in Zande

Helma PASCH

1. Introduction

In Pasch (2007: 174ff) I observed that the direction of self-induced or caused motion towards a location is usually expressed by the preposition *ku* ((1), (2)). *Ku* is frequently used to mark **direction** in a journey of which the starting point has been mentioned ((3), (4)). In this case the verb describing the motion away from the starting point is gapped. These observations are in agreement with Gore & Gore (1952: 78), who translate *ku* as ‘towards’ and add “that it always implies motion”. The situation of the speaker may optionally be indicated by the distal adverb *yo* ‘there’ (more frequent) or by the proximal adverb *no* (less frequent) ‘here’ in clause-final position.

(1) wele ni ki ni-ndu ku kpwu-li² yo.  
   thus ANAPH CONS X-go DIR village-3f there  
   ‘... and thus he then went to her village.’ (Lagae 1921: 184)

(2) ki ni-mo ka ma-a ku we yo.  
   CONS X-begin SUB place.IPFI-NAN DIR fire there  
   ‘... and began to place it [the pot with the flesh] on the fire.’ (EP 1956: 73)

(3) Nabaya a-mere be-re, ku azya Mbiri yo.  
   N. III-escape from-1s.2 DIR ? M. there  
   ‘Nabaya has run away from me, towards the district of Mbiri.’ (Gero 1968: 163)

(4) ka roga-a ku auru gbogbo ti nga ha we si nyoro.  
   SUB remove-INAN.2 DIR over platform at mouth fire INAN.1 whither  
   ‘... [to] take it away [from the fire] to a drying platform over a fire to dry.’ (EP 1956: 73)

It must be noted that not all descriptions of directed motion events require the preposition *ku*. It is not used in case direction of a motion is irrelevant or vague and can be inferred from

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1. I am grateful to the participants of the workshop “Directionality”, which gave birth to this volume, for their insightful comments and questions. My thanks go also to Felix Ameka and Yvonne Treis, who read earlier versions of this paper for many helpful critiques and suggestions, and finally I want to thank Anne Storch, Herrmann Jungraithmayr and Thilo Schadeberg for critical remarks concerning certain arguments of this paper. A special “thank you” goes to my Zande language consultants in Arua (Uganda) and Bangassou (CAR) who provided the examples which are not taken from published sources.

2. *Kpolo* ‘homestead’ is a relational noun. In contexts where the owner is known the second syllable is dropped and replaced by a pronoun of the second series or a noun referring to the home’s owner. Furthermore the stem is contracted to one syllable and the vowel is raised (cf. Pasch 2007: 170, footnote 14).

3. Zande has two series of personal pronouns which appear on all pronouns which are not of HUMAN gender (Pasch & Mbolifoye 2011: <4.><6>). In the present text they are indicated by “1” for series 1 and “2” for series 2 after the number markers “s” and “p”.

4. *Gbogbo* is a special platform for drying meat.
the combination of the verb and the following locative expression describing the position of the moved item at the endpoint of the trajectory, or GOAL ((5), (6)). It may also be omitted if direction is expressed by the verb (7).

(5) mo zogo-he sende
2s.1 put.down-INAN.2 ground
‘Put it on the ground.’ (L&VP 1925: 141)

(6) mo moi-e rogo bu yo
2s put.PF-INAN.2 inside banana there
‘Put it among the bananas.’ (Gore 1926: 104)

(7) Rame ki ta zio5 bangili a-boro
sleep CONS already seize eye PL-person
3p.1 CONS begin SUB enter all
‘When the people became sleepy and all began to enter [their huts] …’ (EP 1973: 237)

Motion away from a location does not usually get a morphological marking, even if the starting point of the TRAJECTORY, or SOURCE, is indicated. This point is described either by a prepositional phrase (8) or by a locational noun (9). This observation is in agreement with the “GOAL-over-SOURCE principle” by Verspoor et al. 1999: 98) according to which among the three components of PATH (cf. Talmy 1985) GOAL or TRAJECTORY may be windowed by itself gapping the respective other and the SOURCE. It is, however, not possible to window only the SOURCE gapping GOAL and TRAJECTORY.

(8) Tule ki kuru vuru-ru yo na a-gu a-boro
T. CONS exit belly-AN.s.2 there with PL-DEF.D PL-person
‘Tule then with the people went out of its [i.e. the bird’s] body.’ (Lagae 1921: 190)

(9) Mbara ni-ta-lita a-mbasa u bi rumbu-ru
elephant X-yet-eat PL-borassusnut AN.s.1 see backside-AN.s.2
ka nika-ru rogo-ho
SUB excrete-AN.s.2 inside-INAN.2
‘When an elephant has swallowed a borassus-nut he finds an anus to throw it out.’
(Bervoets 1954: 1054)

The use of ku as a marker of direction towards a GOAL is easily elicited from informants. But the investigation of texts (stories, proverbs) collected by Evans-Pritchard (1931, 1956, 1973), Gore (1926) and Lagae (1921), proverbs by Bervouts (1952-1955), single sentences quoted in Evans-Pritchard’s volume “The Azande” (1971) as well as numerous entries in the dictionaries by Gore & Gore (1952) and Lagae & Vanden Plas (1922, 1925) show that ku is not an unequivocal indicator of motion directed towards a GOAL, the absence of which would imply either non-motion or motion away from a SOURCE. Furthermore, the presence of ku is not restricted to translational motion events.

5 This verb is listed in the dictionary as zia/zì (IPF/PF) ‘to seize, to take hold of’ in Gore & Gore (1952: 164).
6 Lagae & Vanden Plas (1925: 95) give lima (i) ‘enter’. The final <o> in the example results from regressive assimilation.
For a comprehensive description of the functions of *ku* further criteria must be taken into account. Among these is the direction of motion events: whether they are horizontal, vertical or inward/outward. Furthermore, the quality of the path, whether it allows the figure to reach its destination anyhow, or whether it has to follow a specific line or a narrow path. *Ku* may also indicate the new position of a figure as resulting from directed motion where no motion is explicitly expressed. Finally *ku* is also used metaphorically to indicate direction in non-spatial contexts. In addition the specific posture of the figure with regard to the ground at the end of the motion may play a role. In the description of static situations *ku* is used when these non-topological, but angular.

When in 2007 I stated that *ku* is the only direction marker in Zande I had not yet come across a preposition marking source/origin, *be*, which is quite usually translated as ‘from, off’, derived from the denotation for ‘arm, hand’ (3). What at first appears to be a morphosyntactic source marker functions as such only under very specific conditions. In most cases, *be* indicates rather presence at a powerful and influential place owned by a dangerous animal or person than origin from such a place. It is, however, also used to indicate the cause of an unfavorable given situation.

In this paper I will discuss the prepositions *ku* and *be*, as real or apparent markers of direction towards a goal and away from a source. Both are also used in motion and in non-motion events, but with regard to *ku* the correlation with motion and the direction of motion determines the primary sense, while with regard to *be* static position determines the primary sense.

This paper is organized in two chapters. In chapter 2 the preposition *ku* is discussed in contexts other than usual directed motion events. First, some peculiar usages of *ku* in motion events are presented. Then the analysis focuses on *ku* in expressions without motion verbs, where it indicates direction of perception, angular position or remote position. In metaphorical usages *ku* marks the target language of linguistic translation, the position towards another person or another social group, and possibly also benefactivity.

Chapter 3 discusses the functions of the preposition *be* and analyses its development out of the denotation for ‘hand, arm’ in a process of grammaticalization. Conclusions are drawn in chapter 4.

2. The preposition *ku*

The examples given above showing the normal use of *ku* as a marker of direction in combination with motion verbs refer to horizontal motion only. In examples (1) and (2) only information on the direction towards the goal is given, in examples (3) and (4), information about the source of a motion is relevant to make the description of the situation comprehensible. But while the motion from the source is described by a motion verb, the verb is gapped with regard to the motion in direction of the goal. This direction is expressed solely by the preposition *ku*.

In the following the usage of *ku* in specific types of motion events will be analyzed.

2.1 Motion along a narrow path or into a narrow container

The second type refers to motion that leads the figure through a narrow trajectory ((10), (11)) or into a narrow container (12). Here it is apparently irrelevant whether the verbs which describe the motion conflate a component of path ((10), (12)) or not (11).
(10) Hime na-tida ku due yo
water II-lower DIR ditch there
‘The level of the water lowers in the ditch.’ (Lagae 1921: 150)

(11) mo uka ime ku rogo kambu yo
2s.1 spill water toward in bottle there
‘Pour water into the water-bottle.’ (Gore 1926: 104)

(12) mi mbili kele boro nga Tule ku vu-re yo, hehe!
1s.1 swallow bad person COP T. DIR belly-1s.2 there woe
‘I devoured a bad person, Ture, into my stomach, woe [me].’ (Lagae 1921: 184)

2.2 Vertical motion

Upward motion is always described with the preposition ku + ari ‘up, above’\textsuperscript{7}, a locational noun, which have fused to become kuari ‘upwards’.

(13) mo mai-he kuari
2s.1 put INAN.2 upwards
‘Put it very high.’ (G&G 1952: 4)

(14) Pipi gizaza sungu ri mbisa na ngba-ha kuari.
stopper bottle sit on table with mouth-INAN.2 top
‘The crown cap sits with its “mouth on top” on the table.’ (i.e. with the metal side downwards)

Downward motion is marked by ku only when the direction of the motion is relevant (15). Otherwise the verb and the prepositional phrase or the locational noun describing the GOAL suffice to describe such a motion (16).

(15) ka ba-ha ku sende
SUB throw-INAN.2 DIR ground
‘to throw it [from above] down to the ground’ (Tucker 1959: 123)

(16) ka ba-ha sende
SUB throw-INAN.2 ground
‘to throw it to the ground’ (Tucker 1959: 123)

This claim is in apparent contradiction to the fact that ti ‘fall’ is almost always accompanied by the preposition ku.

(17) ti ku sende
fall DIR ground
‘To fall down’ (L&VP 1925: 150)

The explanation is that ‘fall’ is only one sense of ti, the basic meaning being something like ‘reach, come into contact with’, the local complement being then encoded as a direct object

\textsuperscript{7} The translation by Lagae & Vanden Plas (1925: 12) is ‘en haut’.
2.3 *ku* in angular situations

In angular spatial situations where *figure* is situated to the right or to the left of *ground* from view of the observer (cf. Pasch 2007: 178) this position is indicated by the preposition *ku* \(^8\) (18).

(18) Guru koti du ku kumba be gbanga koti yo.
short coat be \(\text{DIR}\) man hand long coat there
‘The short coat is to the right (lit. hand of man) side of the long coat.’

This construction is not only used to describe the relative situation of the *figure* as a whole with regard to *ground*, but also when part-whole relations obtain. The *figure* may be situated only on a specific part of *ground* (19) or only a specific part of the *figure* is situated relative to the *ground* (20).

(19) kekê pai du ku kumba be mangu waraga yo.
written thing be \(\text{DIR}\) male hand container paper there
‘The stamp [written thing] is on the right side of the envelope.’

(20) Ango sungu pati ga-u bambu ki-sa gi-ru ku ti ni.
dog sit beside \(\text{POSS-AN.s.1}\) house \(\text{CONS-turn back-AN.s.2}\) \(\text{DIR}\) at \(\text{INAN.2}\)
‘The dog sits besides its house with his back turned to it [i.e. towards the house].’

The construction is even used to describe the outgrowth of a part of a body in relation to the entire body.

(21) ngwa na-sanga be-he ku kumba be
\(\text{tree II-branch.off hand-INAN.2}\) \(\text{DIR}\) man hand
‘The tree has a branch going to the right side.’ (L&VP 1925: 139)

2.4 Position, other than the usual/expected one, remote

Somehow striking is the function of *ku* to indicate a static position of the *figure*, which is different from the usual, convenient or standard one ((22) to (27)). Quite often it is a remote position ((22), (23), (24) and (25)). Note that in this function *ku* can be used even in lexicalized prepositional phrases where no verb and no predication is involved (25).

(22) Ra pa ku ba-ri a-bi wene mongo-ri
\(\text{sleep beside DIR father-3f.2 III-see good\} \text{laughing-3f}\)
‘Sleeping at her father’s place sees her nice smile.’
(He who often comes to her father will see her nice smile. (Bervoets 1954: 1054)

(23) i ki ni-mo ka ga ku li-e yo dunduko ka sungo yo.
\(3p\) \(\text{CONS X-begin SUB install DIR top-INAN.2}\) \(3p\) all \(\text{SUB calmth there}\)
‘They built their dwellings on its top [of this hill] and lived there.’ (EP 1931: 273)

(24) A-mbegumba a-enge ti vura Sue ku dio yo.
\(\text{PL-Mb. III-start at side S. DIR west there}\)
‘The Mbegumba originated on the banks of the Sue to the West.’ (EP 1931: 31)

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\(^8\) Other types of angular situations are not documented.
An explanation for the examples (22) to (24) is that the situations described are given only after the subjects have moved to the respective places, in other words: at the end of a journey. With regard to example (25) only a virtual journey is conceivable. This explanation is in agreement with Cresswell’s (1978: 28, 1985: 129ff) observation that some PATH prepositions can combine with stative verbs if they allow an ‘end of journey’-reading. The explanation does, however, not apply for examples (26) and (27). Here ku rather indicates the non-standard position for an action to take place is marked by ku also in a metaphorical sense to indicate that an unexpected direction has been taken instead of the one to be expected (28).

2.5 Direction of perception

In many languages of the world local complements and adjuncts of perception verbs are encoded in a way similar to those of verbs of motion (Eschenbach et al.: 2000: 133), but the two groups of verbs embed path in different ways. With motion verbs it is the subject or the moved object which moves along the TRAJECTORY or towards the GOAL. With verbs of vision, however, a person or non-human animate being orients the vision towards the PATH without translational movement, or while physically moving in the same or any other direction. This person or animal constitutes the SOURCE of a fictive journey from the point of perception to the point of attention. In the languages of the world, including sign languages (Asifa Majid, pers. comm., Sept. 2nd, 2010) this has been observed above all with verbs of vision. In Zande this holds apparently true irrespective of whether the vision-event is expressed by subject-oriented agentive verbs (29, 30) where the subjects intentionally directs the eyes towards the point of attention, or by subject-oriented experiencer verbs9 (31) where the subject does not necessarily so, but his eyes may only accidentally be oriented to the point of attention.

9 The terms "subject oriented agentive verbs” and “subject-oriented experience verbs” have apparently be coined by Whitt (2009: 1085).
TWO MULTIFUNCTIONAL LOCATIVE AND DIRECTIONAL PREPOSITIONS IN ZANDE

(30) Ture ki a-ngere ku mangu yo, ...
    T. CONS III-look DIR bag there
    ‘When Ture looked into the bag …’ (EP 1964: 163)

(31) ni bi ira-mangu ku pati we yo.
    ANAPH see owner-witchcraft DIR side fire there
    ‘… he saw the witch by his fire …’ (EP 1973: 241)

It is true that in example (31) *ku* indicates at the same time that the object perceived is situated at a certain distance from the person who sees it.

Verbs of audition apparently show the same behavior as verbs of vision, i.e. they also mark direction from the point of perception to the point of attention. Unfortunately, this can be demonstrated only by a single example (32). Here the verb *gi* is used as subject-oriented experiencer verb, and we may assume that when it is also used as in an agentive sense ‘listen to’ direction is marked in the same way.

(32) Ani a-gi-he ku Berezi yo ya ko a-kpi yo.
    1p III-hear-INAN DIR Zaire there COMPL he IX-die there
    ‘We heard it from Zaire that he died there.’ (Boyd 1998: 38)

It must be noted that verbs of perception may be used like verbs of motion without the preposition *ku* even in the description of events where the subject looks quite intently into a specific direction (33). Here, the focus of the vision event is, however, not the direction into which Ture looks, but it is rather on the termites which he is forbidden to see but which he wants to get hold of at any price. He is not searching the termites, but has found them exactly where he had expected to do so.

(33) … bi-he a-bi na go kengerekengere
    CONS see-INAN.2 III.see at anthill in.enormous.numbers
    ‘… and saw them covering the entire termite-mound.’ (EP 1964: 158)

2.6 Translation from one language into another one

*ku* is also used in some metaphorical meanings. The first is given when speaking of translating a text from “inside” one language into another one (34).

(34) ana sá-ha rogo pa-Gríkì ku rogo pa-Zande
    1p.1 change-INAN.2 in speech-Greek DIR in speech-Zande
    ‘We translate it (i.e. the bible) from Greek into Zande.’

2.7 Social relations

In a second metaphorical meaning *ku* is used to express interpersonal or social relations. The persons and groups concerned are opposed to each other because of mere personal attitudes (35) or because of their social ranks ((36), (37)). It appears that in case of unequal social levels *ku* introduces the person/group of higher rank.

(35) gbere ngwandu-ko ku ti wilina-ko gbwe
    bad heart-3m DIR on brother-3m very
    ‘He is very much opposed to his brother.’ (L&VP 1925: 150)
(36) I zogo rani zezeredi ku ti-i-ko
3p manage lp.2 cool DIR under-3m
‘That they may govern us peacefully under him.’ (G&G 1952: 142)

(37) I na-sengi-e ku ti ba-kumba
3p II-poise-INAN.2 DIR at big-man
‘They regarded themselves as separate groups under the names of their elders.’
(lit.: They poise it [their name] with regard to their elders). (EP 1971: 58)

2.8 Benefactive

Benefactivity is usually expressed by the preposition *fu* which is derived from the verb *fu* ‘give’. It appears, however, that the preposition *ku* can also be used as an indicator of benefactivity: the last function of *ku* want to be presented here. Only few examples could be found where *ku* has this function ((38), (39)), and the functional difference between the two prepositions cannot easily be determined.

(38) mi nyesi ga bamboo ku ri-ro kindi
1s finish POSS.2s house DIR head-2s always
‘I have finished your house above you forever.’ (Gero 1968: 151)
[Cf. German: Ich habe dir ein Dach über dem Kopf verschafft.]

(39) si ki nziri ngba ko ko ...
INAN.1 CONS be.sweet good DIR head-2s
‘And he found them very delicious’ (lit.: they [the mushrooms] were very sweet for him).
(EP 1964: 158)

3. The preposition *be*

The preposition *be* is derived from the denotation for ‘hand’. The first impression from examples like (3) and (40) is that it indicates SOURCE just as *ku* indicates direction towards a GOAL. But just as *ku* has been shown to be not necessarily related to motion, *be* will be analyzed in the following as not being an unequivocal preposition of SOURCE even though the best documented functions of *be* are to indicate SOURCE/ORIGIN or CAUSE. In fact it is even less correlated to translational motion than *ku*.
The different functions of *be* are outlined in the following chapters, beginning with motion-related usage via place-related usage to power-related usage.

3.1 HUMAN/ANIMATE SOURCE or ORIGIN

The SOURCE or ORIGIN of a motion event indicated by the preposition *be* is always a creature of Human or Animate, but non-Human nature ((40), (41), (42), (43)). The motion may be real (3) or fictive ((41), (42)), e.g. describe the transfer from one state into another one. In the latter case the event may be expressed by a non-motion verb (42).

(40) Nabaya a-mere be-re, ku azya Mibir yo.
N. III-run hand-1s.2 DIR ? M. there
‘Nabaya has run away from me, towards the district of Mbir.’ (Gero 1968: 163)

(41) Oro be a-mbara ti ku be a-gbe.
run hand PL-elephant fall DIR Hand PL-buffalo
‘Running away from elephants is falling among the buffalos.’ (Bervouts 1954: 1055)
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(42) si na-ye be A-babua
INAN II-come hand PL-A.
‘It comes from the Ababua.’ (Gero 1969: 172)

(43) zinga be kpio
awake hand death
‘to awake from death, resuscitate’ (G&G 1952: 165)

3.2 INAN cause

The second function of be is that of marking the cause of a situation which affects the subject in a negative way ((44), (45), (46), (47)). In all known examples the actual affecté is a person, but other animate beings in this role are well conceivable. The given grammatical subject may be a bodypart of the affecté on which he experiences a disagreeable sensation (46).

(44) Ko ariga be kaza
3m be.bent hand sickness
‘He is deformed through illness.’ (G&G 1952: 4)

(45) Mi mbu be sunge
1s.1 be.tired hand work
‘I am weary of work.’ (G &G 1952: 17)

(46) be-re ma be pene gita
hand-1s.2 blister hand handle hoe
‘My hand is blistered by the handle of the hoe.’ (G&G 1952: 83)

(47) «ND
kumba-ri gbere be ga-ri pai ni …
SUB husband-3f bad hand POSS-3f matter
‘When her husband was infuriated by her behavior.’ (EP 1973: 239)

3.3 Place of a HUMAN/ANIMATE possessor

The third function of be is that of marking the location where an action takes place. That location is in the ownership or under the control of a powerful human or animate being who is usually a threat to any intruder ((48), (49)). Note that in the two examples be constitutes the possessorum in an inalienable possessive construction, be-li – ‘her hand’, which shows that it has retained some nominal features.

(48) Oro be a-mbara ti ku be a-gbe.
run hand pl-elephant fall DIR hand pl-buffalo
‘Running away from elephants falls among the buffalos.’ (Bervouts 1954: 1055)

(49) …u ni-ye ka li gwara be-li.
LOG.1 X-come SUB eat yam hand-3f
‘[He said that] he had come to eat yam at her’s. (i.e. her place)
[… qu’il est venu pour manger les ignames chez elle.] (Lagae 1921: 184)

3.4 Alienable possession

In examples (48) and (49) the construction “be + X”, with X being the possessor of be, describes the inalienable possession of the bodypart ‘hand’ which is used to express the power
over a (home) territory. In the two examples, the “be + X”-construction constitutes a local complement introduced by \textit{ku}. In the majority of cases, however, this construction constitutes the predicate of the copula \textit{du} ‘be somewhere’ in a locative construction. It is used to describe alienable possession (cf. Heine & Kuteva 2002: 32): \textit{Y du be X} (Y COP hand X) ‘Y is in the possession of X’ ((49), (50)). It fits the location schema of possessive constructions as described by Heine (1997: 51), which has been thoroughly investigated for Ewe (Claudi & Heine 1986) and for many other languages.

(50) \textit{Wene bamboo (du) be-re good house be hand-1s.1 ‘I have a good house.’}

(51) \textit{Dungu a-e du be A-mbomu nga many pl-thing be hand pl-Mbomu COP gu I a-bi kina be kura a-boro kia DEF.D 3p III-see just hand other pl-person ? ‘Many things the Ambomu possess they took over from other peoples.’ (EP 1971: 91)}

3.5 Acquisition of possession

It goes without saying that the denotation for ‘hand’, \textit{be}, is the SOURCE of the possessive marker. The simple explanation is that a person can acquire possession of things by using the hands used as a tool to grasp and hold them ((52), (53)) or as a container in which to carry or keep things ((54), (55)).

(52) \textit{‘N ki di wili-gaza, ki zadi-he be-ko. 3m CONS take small-drum CONS hold- INAN.2 hand-3m ‘... and he took a little drum and carried it in his hand.’ (Lagae 1921: 183)}

In case there is co-reference between the subject of a clause and owner of the hand, it is the subject who uses his/her hand(s) as a tool to get hold of sth. or to hold and keep sth. (53). In case the owner of the hand is a person other than the subject, s/he is the ORIGIN from where the subject takes away something (54).

(53) \textit{Mo zadi-he be-ro 2s.1 hold-INAN.2 hand-2s.2 mo di-he be-ko 2s.1 take-INAN.2 hand-3m ‘Take hold of it with your hand’ (G&G 1952: 17) ‘Take it from him’ (G&G 1952: 17)}

(54) \textit{Tule na-gwali, ki dungura tunga a-liahē ku be-ko; T. II-start CONS collect seed PL-food DIR hand-3s ‘Ture was on his way, and he collected seeds of all food plants into his hand.’ (Lagae 1921: 183)}

A hand may, of course, also be used to drop things or to give them away. But this cannot explain the SOURCE / ORIGIN function of \textit{be}. There must be another explanation.

3.6 Acquisition of a road or a territory

In the same way as artifacts are appropriated by, e.g. the verb \textit{di} ‘to take’ and the term \textit{be} ‘hand’ as a locative complement, territorial items, like \textit{PATHS}, can metaphorically be taken by
the hands / in the hands of travelers (56). This means that respective items get under the control or power of these travelers.

(56)  Si du i ki ni-di kina Sue ku be-yo inAN.1 be 3p CONS X-take.PF only S. DIR hand-3p ku be-yo ka pe-e ku ngboso-o na Yubo, DIR hand-3p SUB follow-INAN.2 DIR junction-INAN.2 PREP Y.

‘For this reason they migrated following the course of the Sue (lit.: they then took the Sue in their hand) as far as its junction with the Yubo.’ (EP 1931: 31)

The conquest of a population group may also be expressed by the verb dia (i) ‘take’, but in a completely different construction in which be ‘hand’ is encoded as the direct object. This means that the conqueror does not metaphorically take the defeated people by his own hands or put them into his own hands, but he seizes the hands of the defeated people. The hands are encoded as a direct object and the people are encoded as the possessors of the hands ((57), (58), (59)).

(57)  ko ki ta dia be a-gi yo re 3s CONS yet overcome.IP hand PL-DEF.P 3p DEM

‘And when he had overcome (these) them [i.e. the Abarambo]’ (EP 1931: 273)

(58)  A-gbia ki ta dia be yo i ki ni-ya si nga, PL-chief CONS yet defeat.IP hand there 3p CONS VI-say inAN.1 good

‘Since the Avungara had defeated them, they considered it advisable …’ (EP 1931: 273)

(59)  Ko ki so vura na yo ki di be yo. 3m CONS stitch war PREP 3p CONS defeat hand 3p

‘He fought them and overcame them.’ (EP 1931: 274)

This means that with their enemies’ hands conquerors take hold of that part of their enemies that not only is the best visible tool of military power of defense and attack. They are also the parts of the body with which to exert power most ostensibly, power and control within the own group, over their possession, their culture and their territory political power. Taking hold of the enemies’ hands means to disarm them so that they cannot exert power any more. Even in situations of interpersonal hostility, aggressing s.o. is expressed with respect to his hands (60).

(60)  u ki ka na gine be a-boro rogo munga. AN.s.1 CONS forbid with path hand PL-person in m.

‘And he disallowed men to take the way to a munga’s place.’ [il et interdisait le chemin aux hommes à l’endroit d’un munga.] (Lagae 1921: 188)

The reading of be ‘hand’ as TOOL OF CONTROL OF TERRITORY is likely to be the origin of the marker of SOURCE or ORIGIN, and the reading of be ‘hand’ as a TOOL OF CONTROL OVER POLITICAL POWER AND CULTURE is likely to be the SOURCE of the marker of CAUSE. The first parts of examples ([3] 40) and (41) represent the bridging context construction in the development of be as a denotation for ‘control of territory’ to become a preposition which marks ORIGIN.

Given that Zande history – in particular in the 17th and 18th century – was determined by conquests of neighboring territories and internal rivalries and that in this period the Zande practiced an intense language training among the subjugated groups, it may be concluded that
the perception of territorial, military and political power has had an influence on the development of the preposition \textit{be}. In other words, the philosophy of conquest or dominance of the Azande has had an impact on the grammatical structure of their language.

4. Conclusion

The impression provoked by examples (40) and (41) that \textit{ku} and \textit{be} are prepositions marking direction of motion towards a goal and away from a source, albeit confirmed by informants is misleading. The primary sense of \textit{ku} is to indicate direction of translational and also of fictive motion, but it has acquired other functions, like that of indicating angular position, static location at a distant, usually non-standard place.

More striking is the development of \textit{be} from a marker of possession to one marking possession of territory and power, a power which makes the owner of the given territory influential and often also dangerous. The territory ruled by a dangerous ruler is likely to become threatening to intruders and mere visitors. The existence of such danger emanating places, or the anxiety with which they were regarded, may have motivated a further step in the semantic expansion of \textit{be} and made it a preposition indicating origin from a dangerous place. It must be noted that here the focus is more on the danger of the place than on its local situation. A final development turns \textit{be} into a preposition indicating dangerous or disagreeable circumstances as causes or negative effects on persons.

Abbreviations

<table>
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<tr>
<th>AN</th>
<th>animate (non-human)</th>
<th>L&amp;VP</th>
<th>Lagae &amp; Vanden Plas</th>
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<td>anaphoric pronoun</td>
<td>G&amp;G</td>
<td>Gore &amp; Gore</td>
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<td>CONS</td>
<td>consecutive</td>
<td>m</td>
<td>masculine</td>
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<td>COP</td>
<td>copula</td>
<td>PF</td>
<td>perfective verb stem</td>
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<td>DEF.D</td>
<td>definite marker distal</td>
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<td>plural</td>
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<td>DEF.P</td>
<td>definite marker proximal</td>
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<td>possessive marker</td>
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<td>direction</td>
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<td>singular</td>
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<td>feminine</td>
<td>1, 2, 3</td>
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<td>.1, .2</td>
<td>series 1, 2 of pronouns</td>
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<td>imperfective verb stem</td>
<td>II, IIN, III, IX, X</td>
<td>tense-aspect markings</td>
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<td>LOG</td>
<td>logophoric pronoun</td>
<td>according to Boyd (1995)</td>
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</table>
References


10 Giorgetti used the name “F. Gero” as the pen name of Giorgetti Gero Filiberto.
Directional verbs in Mbembe

Doris RICHTER GEN. KEMMERMANN

Abstract
Directionality is encoded in verb semantics in Mbembe – either it is an inherent part of the verb semantics or a directional verb modifies the action/event described by another verb in a serial verb construction. As minor verbs in asymmetrical serial verb constructions, the directional verbs seem to undergo changes in their semantics and their syntactic behavior. The developments in Mbembe that will be described in the following are comparable to other languages with verb serialization. According to Aikhenvald, the grammaticalization of minor verbs in asymmetrical serial verb constructions into markers of directionality, tense, aspect and mood, and valency increasing or decreasing markers has been described for a number of African languages (Aikhenvald 2006: 22-32).

1. Introduction
Mbembe has been classified as a Central-Jukunoid language (Benue-Congo) (Gerhardt 1989), which is spoken in the borderland between Nigeria and Cameroon. The present study is based on data from three dialect areas spoken in the North-West of Cameroon. The three dialects Kuta, Berabe and PoAkɔ all belong to the so-called Upper Mbembe, which is differentiated from the two dialects of Lower Mbembe in Cameroon. Moreover, there are a number of villages in Nigeria.¹

It is assumed that the grammar of the language has been massively restructured – compared to other Benue-Congo languages – due to phonological reduction (mainly word-final consonants and syllables) and subsequent morphological loss. Therefore the language is today rather isolating with a canonical SVO word order, and composition is one of the major strategies to derive new nouns and verbs. This affects the expression of location and direction as well, which is mainly based on associative constructions of nouns and verb serialization. In the following, I will first outline the expression of location in Mbembe (2), before moving on to the expression of directionality by verbs (3). Directional verbs are used as modifiers of other verbs in serial verb constructions (4). Usually these verbs encode motion as well, but when the directional verbs are combined with stative verbs, they can also refer to stative locations rather than directed motion (5). Some of the verbs have acquired additional meanings, which are discussed at the end of this paper (6) and (7).

¹ There are a number of phonological differences, as well as lexical and grammatical differences, between the three dialects, which will not be mentioned in detail since they do not affect the topic described here.
2. Location in Mbembe

Location is defined here as the positioning of the referent that is to be located, the figure, in relation to another referent, the ground (Talmy 1983: 232). The ground is marked in Mbembe with a locative suffix -(y)i.2

(1) mèrì yì tò tʃù t jë ìwè-yì
Mary IMPFTV do work ADP field-LOC
‘Mary is working on the field.’

In addition, a general adposition gë ‘at’ can be used, which is related to the locative adverb ëgë ‘here’, but acquires a general meaning of ‘location at a place’ when used as an adposition.3

The figure can be more specifically located in relation to the ground by the use of locative nouns, which have functions similar to adpositions in English. These nouns are usually derived from body part nouns, for example dʒu ‘face’ for ‘in front of’, kɔkɔrɔ ‘back’ for ‘behind’ and so on.4

(2) bë sì t jë kɔkɔrɔ t-a-yì
dog stay ADP back house-LOC
‘The dog is behind the house.’

The locative nouns in Mbembe are not grammaticalised to adpositions, but occur in an associative construction with the other noun. This can be seen in example (3), where the noun can be replaced by a possessive pronoun, which is attached to the locative noun dʒu ‘face’.

(3) ɲwàtɔì ìë ìftì ðʒu-gë-ì
child move journey face-3SG:POSS-LOC
‘A child walks in front of it.’

There is no difference in the marking of a location, where an action takes place (4a), and the marking of a source or goal of a directed action (4b).

(4a) mèrì dò ìgë t jë këfì-ì
Mary hit 3SG:O ADP kitchen-LOC
‘Mary hit him in the kitchen.’

(4b) mèrì dò ìgë t jë ðjɔrɔ-ì
Mary hit 3SG:O ADP cheek-LOC
‘Mary hit him on his cheek.’

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2 The locative marker -(y)i can also be used for temporal location.
è tʃà zìì mpùmë-ì
3SG:GS start journey morning-LOC
‘He set off in the morning.’

3 In the dialect of Pɔųkɔ, the general adposition is not ñgë, but ñvë. It is not related to any locative adverb.

4 Moreover, there is one locative prefix ñ which is used to express ‘on’ and a number of adpositions that do not seem to be derived from nouns, for example ndìtì ‘inside’.
ìò yì kù ñ-wùntɔ-ì
tree IMPFTV fall LOC-man-LOC
‘A tree is falling on a man.’
Mbembe allows only one locative phrase in each clause. If the speaker wants to indicate both source and goal of an action, s/he has to use two separate clauses – one indicating the movement away from the source and one indicating the movement towards the goal.

(5) ē fɔ tékɛdɛ ȵɛ pré tɔ átɛ hũ
    3SG:S take books ADP stomach house DEMPROX DEF:SG

ē dɔ wɔ gɛ pré tɔ átɛ ẽ hũ
    3SG:S go with 3PL:O:NH stomach house DEMDIS DEF:SG

‘He took the books from this room to that room.’
lit. He took the books in this room and went with them to that room.

Location is marked in Mbembe on the ground in relation to which the figure is located in space. This is usually done with a locative suffix -(ɔ)ŋ and a general adposition ɡɛ ‘at’. If the figure is located in relation to a special part of the ground, for example the front or the back, this is usually expressed by associative constructions with locative nouns, which are body part nouns.

These devices can be used to mark the location, where the action takes place, as well as the source or goal of a directed action. If both goal and source of a directed action should be expressed, this has to be done in two separate clauses, since only one locative phrase can be used in one clause. The direction of the action itself, however, is not expressed by these markers, but by directional verbs.

3. Directionality

Directionality differs from location as it does not define the figure in relation to the ground, but rather describes the orientation of an action or event in relation to a deictic centre, which is usually the source or the goal. While in most cases it implies a movement of the figure in space, for example ‘ascend’/‘descend’, this is not necessarily the case. For example, the directed perception ‘look up (at something)’ (cf. (27)) does not entail a movement of the figure in space. Therefore directionality is very generally defined here as any action/event performed in relation to a deictic centre, i.e. towards or away, into or out of, upwards or downwards and so on. The deictic centre can be a non-human location or a human participant.

3.1 Directional verbs

In contrast to location, the direction of an action/event is not encoded in Mbembe by locative affixes, adpositions or locative nouns, but is encoded in verb semantics, i.e. it is part of the lexical meaning of verbs. These verbs are called directional verbs. Most of them additionally encode motion.

3.1.1 Horizontal Orientation

The verb yɔ ‘come’ encodes movement towards the deictic centre, i.e. towards the goal of the action. The implied goal is the speaker, which is usually not overtly expressed in the clause. Locative expressions in a clause further define the location where the speaker is at the time the action is performed. For example, tɔ mbɔʃũ ‘church’ in (6b) could not be the goal of the action if the speaker had not been there.
(6a)  yā (ḏê) come (here)
     ‘Come here (towards speaker)!’

(6b)  č yā yā tā mbōtjū-yī
     3PL:S PAST come house God-LOC
     ‘S/He came to church.’

But in some examples, the location refers to the source of the action. In these cases, yā can be translated by ‘come from’, although the goal, i.e. the speaker, is still implied. Therefore the direction expressed is ‘come from X to(wards) speaker’. In most of these examples, the location is additionally marked by the adposition ḏê ‘at’.

(7)  č yî yā ḏê Bamenda
     3SG:S IMPFTV come ADP name of town
     ‘S/He is coming from Bamenda.’

The verb ḏō ‘go’, on the other hand, implies that the speaker is the source of the action/event. Nevertheless, the location usually overtly expressed in the clause is the goal of the action and the speaker as a source is not mentioned as in example (8).

(8)  č yā ḏō ndō
     3SG:S PAST go home
     ‘S/He went home’ (implying ‘he left here’)

The verb could therefore be glossed with ‘go to’ in English.

3.1.2 Container Orientation

The verb ḏō ‘exit’ generally expresses movement of an agent ‘out of’ a container, which is the source of the action. The goal of the action is usually not mentioned.

(9)  pītā yā ḏō ḏê tā
     Peter PAST exit ADP house
     ‘Peter exited the house.’

Movement of an agent ‘into’ a container, which is the goal of the movement, is expressed by kā ‘enter’. Again, the encoded deictic centre, the goal, is usually the one which is overtly expressed in the clause.

(10) pītā kā brē v3-i
     Peter enter place wash-LOC
     ‘Peter enters the bathroom.’

For both verbs, ḏō ‘exit’ and kā ‘enter’, the speaker does not play a role as an implied source or goal of the action.

Directed action ‘out of’ or ‘into’ cannot only be encoded for the agent. In example (11), the verb pī5 ‘put in’, which always encodes the direction ‘into’, refers to the directed movement of the patient ābrē ‘bag’.

(11) pī5 ābrē pī5
     Peter bag put-in
     ‘Peter put the bag in.’
Directional Verbs in Mbembe

3.1.3 Vertical Orientation

Movement ‘upwards’ is encoded in Mbembe with the verb ṅi ‘ascend’. The locative expression in the clause always refers to the location that is ascended, for example ṛⁿè ‘hill’ in (12). Again, the location of the speaker does not play a role.

(12) bò yí ní ṛⁿè-yí
3PL:S IMPFTV ascend hill(-LOC)
‘They are ascending a hill.’

The direction ‘downwards’, on the other hand, is expressed by two different verbs, depending on the location of the speaker. The verb ṭì³ has to be translated by ‘go down’, since it not only encodes the direction ‘downwards’ but also ‘away from the speaker’ as in (13a). The verb ṭí³ also encodes movement downwards, but in contrast to ṭì³ it additionally encodes the direction ‘towards the speaker’ as in (13b). It is therefore translated by ‘come down’.

(13a) ë yì ṭì³-yí
3SG:S go down-PFTV
‘S/He has gone down (speaker up).’

(13b) ã ní ṭí³-gí ã ṭì³
2SG:S ascend palmtree 2SG:S come down
‘You ascend a palmtree and you come down (speaker down).’

As shown above verbs can encode simple directions or, as was the case with the examples (13a) and (13b), encode multiple orientations in their lexical meanings, i.e. vertical orientation as well as speaker-orientation. There are a lot more verbs in Mbembe that encode direction, but the examples given here are the ones most frequently used in the language.

4. Directional verbs in serial verb constructions

If verbs do not encode direction or the direction they encode has to be modified, directional verbs like the ones described above are used as minor verbs in asymmetrical serial verb constructions to indicate the direction of the action. Before turning to the use of directional verbs in serial verb constructions, it will be necessary to give a basic definition of serial verb constructions in Mbembe.

4.1 Serial verb constructions in Mbembe

There are different types of serial verb constructions in Mbembe which share a number of features and which occur with relatively equal frequency in the corpus.

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5 The verb ṅi ‘ascend’ seems to be an ambitransitive verb and the location that is ascended can either be realised as an object argument of the verb without locative marking or as a peripheral argument, i.e. as a locative phrase. The same seems to be true for a number of other directional verbs as well.
Semantically, serial verb constructions in Mbembe can be divided into symmetrical serial verb constructions, which consist of two or more semantically equal verbs from unrestricted classes and describe a sequence of actions/events in close temporal proximity, and asymmetrical serial verb constructions, which consist of one major verb, which describes the main action, and one or more minor verbs, which modify the action/event described by the major verb and as such often have modified semantic and functional properties compared to their use as main verbs.

Following the definition given in Aikhenvald (2006), serial verb constructions in Mbembe are defined as clusters of two or more verbs in the functional slot of the verb phrase in a monoclausal structure. In both types of serial verb constructions, the verbs share the same subject, which only occurs once before the first verb (either nominal or pronominal). In symmetrical serial verb constructions, the two or more verbs either have the same or different argument structures. If the argument structures are different, the verb which requires the highest number of arguments always occurs last in the series. The object arguments of either all verbs or the last verb in the series then follow the predicate as a whole. In asymmetrical serial verb constructions, the minor verbs usually do not influence the argument structure of the verbs, despite the fact that they occur as the last verbs in the series. The object arguments of the major verb nevertheless follow the series as a whole, i.e. occur after the last verb. Peripheral arguments occur in their usual position at the end of a clause. The sequences of verbs in a serial verb construction therefore cluster in the middle of the sentence in-between the subject and the object or peripheral arguments if there are any.

Moreover, the verbs in both types of serial verb construction share the same TAM and polarity values, which are marked in their respective positions either before the first verb or after the last. If the verbs in symmetrical serial verb constructions have different values or are modified otherwise, for example by adverbs, they cannot occur in a serial verb construction but have to occur in separate clauses. This means that the two (or more) verbs only cluster in symmetrical serial verb constructions, if they do have the same argument structure and share the same arguments ((14a)). They could alternatively be realised with two separate clauses ((14b)), i.e. each verb takes its own subject and object arguments. Nevertheless, as can be seen in example (14b) as well, the object argument in Mbembe does not necessarily have to be realised. If the verbs do not share the same arguments or are modified differently, they have to occur in two separate clauses ((14c)), i.e. in this case a serial verb construction is not possible.

(14a)  wūvā yā kí dù pītā
woman PAST push hit Peter
‘The woman pushed and hit Peter.’

(14b)  wūvā hu yā kí (pītā) č dū pītā
woman DEF:SG PAST push (Peter) 3SG:S hit Peter
‘The woman pushed (Peter) and she hit Peter.’

(14c)  č dū gē kwā-wā mū č kí lē gē
3SG:S hit 3SG:O only-ADV NEG 3SG:S push also 3SG:O
‘She not only hit him, she also pushed him.’

Therefore, symmetrical serial verb constructions could also be called covert coordinate constructions (cf. Ameka 2005). However, many of these serial verb constructions are

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*There are nevertheless a number of exceptions, which cannot be outlined in detail here. Some of them will be described below.*
Directional verbs in Mbembe can be used as minor verbs in an asymmetrical serial verb construction to modify the direction of the action/event described by the major verb. If the major verb in the serial verb construction already encodes direction, the minor verb is usually added when the action described entails a complex directionality, i.e. the two directional verbs describe different phases of a directed movement. Or a directional verb can be used as a minor verb in a serial verb construction to describe the direction of an action if the major verb does not encode direction, thus adding the meaning of direction to the predicate as a whole.

4.2.1 Modification of the direction encoded by the major verb

As has been described above, the verb nî ‘ascend’ encodes the direction upwards in its lexical meaning. In the following examples, it combines with the verb dʒû ‘exit’, which expresses the direction ‘out of (a container)’, to express the movement ‘upwards out of’ ((15a)) a container or ‘upwards onto’ a location ((15b)). The latter use of the combined verbs nî ‘ascend’ and dʒû ‘exit’ is rather rare, since the latter verb usually refers to movement out of a container.

(15a) ndûè nî-n-dʒû ē ɲùhû bstr̥-i
defrog climb-EC-exit ADP inside bottle-LOC
‘The frog climbed out of the bottle.’

(15b) bê wû ñwâsî yi nî-n-dʒû ē mbrî tû-i
dog with child IMPFTV ascend-EC-exit ADP trunk tree-LOC
‘The dog and the child are climbing onto the trunk of a tree.’

4.2.2 Modification of the non-directed action/event encoded by the major verb

Moreover, directional verbs can be used in serial verb constructions with major verbs that do not encode direction. Most of these major verbs are verbs expressing the manner of motion, but there are few examples for verbs which do not encode motion.

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7 What is called epenthetic consonant here is always a nasal consonant. It is assumed that it is a remnant of a former final nasal consonant of the first verb, for example ‘ascend, climb’ was reconstructed by Shimizu (1980: 313) with *nin. Final nasal consonants were generally lost in the language, but a nasal feature has been retained for a number of verbs in the Kuta dialect as a nasalised vowel for a number of verbs, while it is completely lost for others and in the other dialects under study. However, in a number of fixed collocations of specific verbs the nasal consonant is then still realised fully. It does not have any grammatical function in the language.
4.2.2.1 Horizontal Orientation

If the major verb in the serial verb construction does not encode movement towards a goal or away from a source, this meaning can be added by the verbs \( \text{yā} \) ‘come’ and \( \text{dō} \) ‘go’ respectively.

In the following examples, the verb \( \text{pō} \) ‘roll’ expresses the manner of motion, but it does not encode direction. When combined with \( \text{dō} \) ‘go’ as in example (16a) it refers to the movement away from the speaker, while it refers to the movement towards the speaker when combined with the verb \( \text{yā} \) ‘come’ in example (16b).

(16a) dāngò pē dō ēnè
ball roll go here
‘A ball rolls from here (to there).’

(16b) dāngò pē yā nū
ball roll come there
‘A ball rolls from there (to here).’

In example (16a) and (17a), the verb \( \text{dō} \) ‘go’ encodes the direction ‘away from speaker’. But as already explained in 3.1.1., the verb \( \text{dō} \) ‘go’ has an implied source speaker and as such encodes ‘away from speaker’, but the location realised in the sentence is usually the goal. Therefore \( \text{dō} \) ‘go’ is in most examples used to express movement towards a goal. As a minor verb in serial verb constructions it can encode both – movement away from the speaker as in (17a) and movement towards a goal as in (17b).

(17a) kpí dō wō kpìš hū dōgō-ñë-f
pull go with firewood DEFSG face-1SGPOSS-LOC
‘Drag the firewood away from me!’

(17b) kpí dō wō kpìš hū ṣnhọ ngunuhá áte lō hú
pull go with firewood DEFSG side man DEMDIS DEFSG
‘Drag the firewood towards that man!’

The simple verb \( \text{ḥā} \) ‘give’ describes in its most basic meaning the transfer of possession of a concrete object from the donor to the recipient ((18a)). It can as such also be used as a minor verb in a serial verb construction ((18b)). In contrast to other minor verbs, the verb \( \text{ḥā} \) ‘give’ then determines the argument structure of the predicate as a whole and as such allows adding a further participant to an otherwise transitive verb.

(18a) č ę yā ę́ Chúng tàkādá
3SG:S PAST give 1SG:O book
‘She gave the book to me.’

(18b) č mbů́ ę́ gě́ ḏ̄ḥ̄fí
3SG:S take give 3SG:O rabbit
‘He took the rabbit and gave it to her.’

Moreover, the verb \( \text{ḥā} \) ‘give’ can be used in a serial verb construction as a directional verb. The recipient then “also serves as the Locative Goal for the transfer of the thing” (Lord et al. 2002: 219).
(19a) ŭ = pūbę  ŋá wō kōbó
1SG:S = send  give 2SG:O money:SG
‘I sent money to you.’

(19b) cę tā ŋā ŋē dāngō
3SG:S throw  give 1SG:O ball
‘He threw the ball to me.’

4.2.2.2 Container Orientation

If the major verb does not encode movement into or out of a container, this meaning can be added by the directional verbs ḳā ‘enter’ for ‘into’ as in example (20a) and ḥā ‘exit’ for ‘out of’ ((20b)), as described above.

(20a) ngū- dū pō kā ŋē ḥō-ĭ
person certain:SG  jump enter ADP water-LOC
‘Somebody jumped into (the) water.’

(20b) bë pō ḥā ŋē windō-ĭ
dog jump exit ADP window-LOC
‘The dog jumped out of the window.’

The verb ḫā ‘put into’ can also be used in a serial verb construction to express the direction ‘into’ for non-agent arguments of an action.

(21) ḱi = yā pō pā ḥādi ŋū ŋē ḩōbre-ĭ
1SG:S = PAST scoop put beans ADP bag-LOC
‘I scooped beans into her bag.’

4.2.2.3 Vertical Orientation

To express vertical orientation, the directional verbs for ‘ascend’ or ‘descend’ can occur as minor verbs in asymmetrical serial verb constructions ((22a) and b)).

(22a) ngūrū gbē nī ŋē ḥā tā-ĭ
person run ascend ADP face house-LOC
‘A person runs up to the front of the house.’

(22b) ḱkērē pī thā pōb-yī
kalabash roll come_down road-LOC
‘The calabash rolled down the road.’

4.3 Constraints on serial verb constructions

While most commonly only two verbs combine, the number of verbs in such serial verb constructions is basically unlimited depending on how detailed the speaker wants to describe the different sub-parts of an action/event. The only constraints on the number of verbs are therefore factors such as production and comprehension. The following example is taken from a folk tale and describes how one animal tries to help another animal, which is trapped in a hole, to come out of that hole. The speaker used many different verbs to describe the various phases and directions of the action in detail to stress its difficulty.
As the example shows as well, it is possible to combine different types of serial verb constructions with one another in the Mbembe language. The verbs *kpí* ‘pull’, *pā* ‘drag’, *mbū* ‘take’ and *nt‘climb’ are semantically equal verbs in a symmetrical serial verb construction, while the verbs *kà* ‘enter’ and *tfā* ‘cross’ rather function as minor verbs that encode the path of the movement.

5. Directional verbs as markers of static location

There are a number of examples in the language, where the directional verbs combine with stative verbs and then usually refer to a static location similar to the body parts nouns used in adpositional function mentioned above. The motional semantics of the directional verbs are lost in these cases and their meaning is reduced to the goal of their directed motion. For example, the verb *θrā* ‘go down’ can be used to express the static location ‘down’ as in (24a), while *nt‘ascend’ can be used to express the location ‘up’ ((24b)).

(24a) ěginā dū-tē ərē dū-gē hū …
    name of person build-STAT go_down village-3SG:POSS DEF:SG
    ‘Egina built down in his village …’

(24b) … hē vuč-gē má nī ndā
    but wives-3SG:POSS be ascend village
    ‘… but his wives are up in the village.’

Moreover, these verbs can be used with perception verbs like *vē* ‘see’ ((25) a und b)).

(25a) ě yī vē nī kūrū dē
    3SG:S IMPFTV see ascend canoe bee/s
    ‘He looked up at the beehive.’

(25b) ě yī vē sīa mó ēbō nū hū
    3SG:S IMPFTV see come_down DM time sun DEF:SG
    ‘It is usually looking down during the day.’

The development of motion verbs as minor verbs in serial verb constructions into adpositions has been described for a number of languages (Aikhenvald 2006: 32; Heine & Kuteva 2002: 117). The fact that the directional verbs in Mbembe can be used with stative or perception verbs in serial verb constructions and as such lose some of their semantic properties can be regarded as a first step in that direction.

6. Directional verbs with aspectual meanings

It seems that a number of the directional verbs can be used to express aspectual notions. This use is not necessarily related to their directional meaning, but more likely has to be attributed to their property as process motion verbs, since non-directional motion verbs like *θē* ~ *sē*...
‘move’ can be used in a similar way as well. For example, the verb ṭọ̀ ‘go (to)’ can be used with imperfective meaning.\(^8\) It is then followed by the conjunction ẹ̀ ‘with’.\(^9\)

(26a) ẹ̀ yí pọ̀ọ́ ṭọ̀ yí
3SG:S IMPFTV plait go with
‘He is plaiting continuously.’

(26b) ẹ̀ yí zì ṭọ̀ yí
3SG:S IMPFTV eat go with
‘He continued eating (it).’

The development of motion verbs into markers of tense-aspect is another process that occurs quite commonly in serializing languages (Aikhenvald 2006: 30/31). The verb ‘go’ frequently develops into a progressive, durative or continuous marker (Heine & Kuteva 2002: 157), for example in Yoruba (Lord 1989: 357/358).

(27) Yoruba

(28a) ẹ̀ tʃɛ̄ zì ẹ̀ bié zì
3SG:S boil eat give 1SG:O things eat
‘She cooks food for me.’

(28b) ẹ̀ yá tʃɛ̄ zì bié zì ké wá mbrí
3SG:S PAST boil eat things eat for people all
‘She cooked food for everyone.’

7. The verb ẹ̀ ‘give’

The verb ẹ̀ ‘give’ as a minor verb in serial verb constructions allows to add a further participant to the action/event described by the major verb, which can either be the recipient to which something is transferred or the locative goal of a directed action as has been described above (cf. 4.2.2.1., (19)). In a further type of serial verb construction with ẹ̀ ‘give’, the semantic role of the additional argument is no longer the recipient, but rather the beneficiary of the action ((28a)). Therefore, these serial verb constructions differ from those described above. Moreover, the beneficiary can always be expressed as a peripheral argument in a prepositional phrase introduced by kɛ̀ ‘for’ ((28b)).\(^{10}\)

\(^{8}\) The use of the motion verb ẹ̀ ‘come’ in a similar function has not been attested in the corpus.

\(^{9}\) ẹ̀ ‘with’ is usually used to replace peripheral arguments introduced by (w)ọ̀ ‘with’ when they are not realised with a noun phrase since they are known from the preceding discourse, or with the verb mà ‘be’ plus participle to express imperfective meaning.

\(^{10}\) This morpheme can also be used to express the purpose or reason of an action/event. In this case the semantic role of the causer of an action seems to be conflated with that of the beneficiary of an action.
The two constructions can be used interchangeably without a change in meaning. However, the benefactive construction with the verb \( \text{gá} \) ‘give’ can only be used in contexts, where it does not lead to ambiguities with the use of the verb as a directional verb. For example, in (28) a), a directional interpretation of the sentence is not possible, since one cannot cook “towards” someone.

In other contexts, the interpretation of the sentence could be ambiguous, as in (29a) where the third person singular object could be interpreted as the locative goal as well as the beneficiary of the action. In these cases, the benefactive has to be expressed with the prepositional phrase with \( \text{ké} \) ‘for’ ((29b)); the construction with \( \text{gá} \) ‘give’ is not possible.

\[(29a)\]  
\[\text{ê ðʒə ñá gē tākādā} \]
\[\text{3SG:S write give 3SG:O book} \]
\[\text{‘He wrote a letter to her.’} \]
\[\text{*He wrote a letter for her.} \]

\[(29b)\]  
\[\text{ê ðʒə tākādā ké gē} \]
\[\text{3SG:S write book for 3SG:IND} \]
\[\text{‘He wrote a letter for her.’} \]

The two functions of the verb \( \text{gá} \) ‘give’ have been described for a number of other languages as well (Lord et al. 2002). For example, in Yoruba, the verb \( \text{fún} \) ‘give’ can be used in a serial verb construction as a marker of the direction ‘to(wards)’ and as a benefactive marker (Lord 1989: 94/95).

\[(30)\]  
\[\text{Yoruba} \]
\[ð tā-á fún mí} \]
\[\text{he sell-it give me} \]
\[\text{a) ‘He sold it to me.’} \]
\[\text{b) ‘He sold it for me.’} \]

A sentence in Yoruba like example (30) can have ambiguous translations, depending on the interpretation of the verb \( \text{fún} \) ‘give’, while in Mbembe such ambiguity is avoided by the use of the different strategies ((31)).

\[(31a)\]  
\[\text{pītā yā fō zī ñá ñē bē} \]
\[\text{peter PAST buy eat give 1SG:O goat} \]
\[\text{‘Peter sold the goat to me.’} \]
\[\text{*Peter sold the goat for me.} \]

\[(31b)\]  
\[\text{pītā yā fō zī bē ké mí} \]
\[\text{peter PAST buy eat goat for 1SG:IND} \]
\[\text{‘Peter sold the goat for me.’} \]

When directional verbs are used as minor verbs in asymmetrical serial verb constructions in Mbembe, they can either add a direction to the action/event encoded by the major verb, or, if the major verb already encodes direction, they can modify that direction. In certain contexts, the meanings of the directional verbs have been altered, for example, if the directional verbs are used with stative or perception verbs, they refer to a static location rather than the direction of an action. Moreover, the directional verbs in Mbembe can be used as aspect and benefactive markers.
8. Summary and conclusion

As has been tried to illustrate, directionality is encoded in Mbembe in verb semantics. Since the morphology in Mbembe has been reduced and restructured massively compared to other Benue-Congo languages, the main means to derive new meanings and to express grammatical categories in the verbal domain are serial verb constructions. Therefore, if a verb does not encode direction, it can be modified by a directional verb in a serial verb construction. While directional verbs are mainly used with motion verbs in the language, they can also be used in a number of cases with other verb classes. When used with stative verbs, the directional verbs are semantically reduced to the endpoint of their directed movement. Another function of some of the directional verbs is the expression of aspectual notions. Nevertheless, the latter do not seem to be related to the directional meaning of the verbs, but rather to their semantics as process verbs. Moreover, the verb ɲa ‘give’ can be used to mark a locative goal as well as a beneficiary of an action, though ambiguities arising from these two functions are avoided in the language.

Therefore, some of the directional verbs have developed uses beyond their simple directional meaning. Similar developments have been described for a number of other serializing languages as well, where minor verbs in asymmetrical serial verb constructions developed into grammatical markers, for example the West Ring languages as described by Kießling (2004). In Isu, a number of verbs have developed into adverbial markers. While some of them have retained verbal properties, others have lost most of them. Common to these adverbials in Isu is that they do no longer have a full verb as a counterpart in the language (Kießling 2004: 232). In contrast, in Mbembe, all directional verbs can still be used as full verbs in the languages. They only loose some of their properties when used as minor verbs in serial verb constructions. As such, the directional verbs in Mbembe are not as much grammaticalised as minor verbs in other languages. But some of these directional verbs, as well as other minor verbs in asymmetrical serial verb constructions in the language, might develop into grammatical markers in the language in the future.

Abbreviations

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<th>1, 2, 3</th>
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