

# Terms for Cardinal Directions in Eastern Bantu Languages

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## **Abstract**

Different languages employ different mechanisms to express cardinal directions. New information on terms for cardinal directions is revealed in many studies by anthropological and cognitive linguists on minority languages of the world. However, there are gaps in studies on nomenclature for cardinal directions in Africa languages which this paper aims to fill by providing a detailed examination of such nomenclature. The paper is based on data from a sample of 42 Eastern Bantu languages. Elicitation and extraction of terms from dictionaries were the main data collection techniques used. The study found out that there are seven sources used to derive terms for cardinal directions namely, names of ethnic groups, names of body-parts, direction of sunrise and sunset, water-bodies (oceans and lakes), terrain (uphill and downhill), winds, and lexical borrowing. The paper found that reference to terrain (uphill and downhill) and ethnic communities were the most popular sources of cardinal terms in Eastern Bantu. The study also found that naming cardinal direction based on wind, usually associated with coastal Bantu, is also found in the interior of Africa in such languages as Gogo and Ndebele. Finally, contrary to previous studies, the study found that in Eastern Bantu north/south cardinal terms are more prominent than terms for east and west.

**Keywords:** Anthropological linguistics, cardinal terms, eastern Bantu, lexicography, salience

## **1. Introduction**

Cardinal directions are derived from various sources in various languages in the world. Anthropological linguistics has revealed that in many languages, terms for cardinal directions have been derived from the sun, landmarks, body-parts, winds, and terrain (Brown 1983; Heine 1997). Specific to the African continent, Mietzner & Pasch (2007) and Lusekelo (2012) found that ethnic groups and environment-related features contribute to the bulk of terms for the cardinal directions in African languages. Based on data gathered from Bantu languages from the eastern part of Africa, this article provides further information on how terms for cardinal directions are derived in

African languages. The paper identifies seven sources for terms: ethnic groups, names of body-parts, direction of sunrise and sunset, water-bodies (oceans and lakes), terrain (uphill and downhill), winds, and lexical borrowing.

## **2. An Overview of the Terms for the Cardinal Directions**

### **2.1 Marking of Cardinal Directions in Minority Languages**

Some minority languages of the world constitute specific vocabulary domain for the four cardinal directions namely east, north, south, and west. An inventory of key terms used to express these cardinal directions is provided by researchers in anthropological linguistics. For example, Trager & Trager (1970, p. 36) established that cardinal direction terms in Taos and Picuris (Indian Americans) “do indeed constitute a small vocabulary domain of its own.” In these communities, “the reference of the terms cover the whole topographic range of the cardinal directions” (Ibid, p. 36). The centre is determined by the position of the Pueblo Peak in relation to the point of speech. Although specific vocabulary is available in this language, the perfection of the actual ground direction is the topographical location of the speaker and actual point of the Pueblo Peak.

In Guugu Yimithirr (spoken by aboriginal Australians) the scenario is slightly different from that observed in Taos and Picuris. Haviland (1998) found that in Guugu Yimithirr case-marking and geographic location of interlocutors are central in marking cardinal points. Since there is no specific vocabulary for the domain of cardinal directions, speakers of this language make use of the internal structure of the language and the terrain to name cardinal points. In Kala Lagaw Ya, another minority language from Australia, wind direction and terrain (either sea and/or landmass) combine with the morphology of the language to refer to cardinal points (Stirling 2010). Thus, the terms **pawpa** ‘to leeward’ may mean northward or westward depending on the point of speech and direction of wind in relation to landmass.

Although languages of the world utilise different mechanisms to express cardinal terms, some similarities can be noted. Haviland (1998) found that Guugu Yamithirr uses deictic terms in relation to case-marked directions assigned to roots. Similar patterns are attested in the islands between Australia and Papua New Guinea (Stirling 2010). In addition, the three communities (Taos and Picuris, Guugu Yimithirr and Kala Lagaw Ya) assign cardinal points to technical terms and in relation to the point of reference marked from the position of landmarks.

Brown (1983) and Heine (1997) provide a number of sources of the terms of cardinal directions albeit with slight differences between them. On the one hand, Brown (1983, p. 147) concludes that “languages have drawn on only four lexical source areas in innovating terms for cardinal directions: (1) celestial bodies and events, (2) atmospheric features, (3) other more general directional terms, and (4) environmental-specific features.” On the other hand, Heine (1997, p. 50) presents five strategies some of which, he argues, are more prolific than others: (1) the movement of the sun mainly for East-West marking and to a lesser extent for North-South distinction, (2) deictic orientations combined with the morphology of words, (3) movements of the winds, (4)

various landmarks such as mountains, vegetations and water-bodies, and (5) other domains such as body parts. Statistics show that of all these sources, the sun constituted about 57 percent, deictic orientations 20 percent, the wind 9 percent, and landmarks 9 percent (Ibid, p. 50).

## **2.2 Marking of Cardinal Directions in African Languages**

Mietzner & Pasch (2007) highlight seven strategies employed to derive nomenclature of cardinal directions in Nilotic and Ubangian languages of Africa. Of the seven, five are those noted by Heine (1997) to which Mietzner & Pasch (2007) add other terms derived from ethnic groups and terms that are physical feature-specific. Mietzner & Pasch (2007) make two suggestions that need to be carefully re-examined. The first is that the lexicons of Bantu languages exhibit three cardinal points (Mietzner & Pasch 2007). The first claim is not supported by data because Bantu languages make use of more than three mechanisms to express cardinal directions. The second is that languages found in the interior of Africa do not derive terms for cardinal directions from winds. The second claim too is also not supported by facts from Bantu languages. To the contrary, Lusekelo (2012) highlights the use of winds for the Gogo speakers in the interior of Tanzania. More data will point towards innovation of terms from winds even for the languages from the interior of Africa.

Out of the seven noted mechanisms (Mietzner & Pasch 2007; Lusekelo 2012), two strategies require some detailed explanation. While Lusekelo (2012) underscores the importance of the terrain (uphill-downhill) in marking north-south points, Mietzner & Pasch (2007, p. 10) are skeptical because “the environment specific features do not only relate to directions, but that they have a wide range of other connotations.” Tugen (spoken in Kenya), for example, relates **katogon** with south, altitude, dignity, rain, coolness, masculinity and fertility. This appears to be true for other African languages, like the Gogo people of Tanzania who associate **chilima** and **imwezi** ‘East-West’ with the movements of the winds and the casting of the deadly diseases (Lusekelo 2012; Rugemalira 2009). In fact, the west is associated with bad omen hence the place in which to cast deadly diseases. Given these differences in findings of previous studies, a detailed examination of the mechanisms for the expression of cardinal directions in Bantu languages tends to be a significant point to make in Bantu linguistics.

Both habitat and terrain influence the choice of directional terms in some African languages. For instance, with regard to north-south dichotomy, Mietzner & Pasch (2007) mention that the Maasai orientation is influenced by the direction of Mt. Kilimanjaro. The Matapato Maasai living north of Mt. Kilimanjaro use **kópikop** ‘down’ for north and **shúmata** ‘above’ for south while the Kisonko Maasai to the South of Mt. Kilimanjaro use **kópikop** ‘down’ for south and **shúmata** ‘above’ for north. Such variations in sources of similar cardinal terms for speakers located in different parts of the physical landmass call for a comparative investigation of the mechanisms across a given language family.

In his analysis of cardinal directions in selected world languages, Brown's (1983) choice of representative languages yielded skewed data for Bantu languages. For instance, Brown (1983) mentions only Kikuyu as making use of sunrise and sunset to mark East and West leaving out Swahili which, according to Lusekelo (2012, p. 8), uses **mawio** (sunrise) for East and **machweo** (sunset) for West. This motivated further and more comprehensive scrutiny of strategies employed by Eastern Bantu to mark cardinal directions.

In addition, Brown (1983, p. 133) mentions coastal languages Swahili and Zulu as the only African languages that derive terms North and South from the oceanic (seasonal) winds (see also Mietzner & Pasch [2007]). However, Lusekelo (2012, p. 10) found that the interior language of Gogo makes use of the movements of the winds to mark the East-West distinctions. This lacuna also warrants this comparative research on terms for cardinal directions in Bantu languages.

### **3. Methodology**

#### **3.1 Data Collection**

Data used in this study were gathered from 42 Eastern Bantu listed in Table 1. Three methodological procedures were involved in gathering the data. In the first place, data was obtained from published dictionaries and lexicons which also formed the main sources of data. Important lexical entries in these dictionaries were selected based on their use for the expression of cardinal directions. Secondly, the lexical access technique, which investigates how native speakers recall the lexical entries for some semantic fields (Lusekelo 2012), was employed to gather data for Tanzanian Bantu languages. A total of 104 undergraduate students of linguistics were asked to draw and label the four cardinal directions in twenty Tanzanian Bantu languages (Table 2). Lastly, native speakers who are Bantuists<sup>1</sup> provided data through elicitation (Table 3). Using purposeful sampling, native speakers of some languages were consulted in order to obtain detailed information about terms for cardinal directions in their languages. This is in line with Vaux & Cooper (1999) and Bower (2008) who underscore that purposeful selection of informants is required if case specific linguistic information has to be elicited from native speakers.

**Table 1: Sample of Eastern Bantu languages**

<b>S/N</b>	<b>Bantu zone</b>	<b>Name</b>	<b>Countries where spoken</b>
1.	E51	Gikuyu	Kenya
2.	E73	Digo	Kenya & Tanzania
3.	F21	Sukuma	Tanzania
4.	F22	Nyamwezi	Tanzania
5.	F31	Nyiramba	Tanzania
6.	F32	Nyaturu	Tanzania
7.	G11	Gogo	Tanzania
8.	G23	Shambaa	Tanzania

9.	G42	Swahili	East Africa
10.	G61	Kibena	Tanzania
11.	G62	Kihehe	Tanzania
12.	JD 65	Hangaza	Tanzania
13.	JD66	Giha	Tanzania
14.	JE13	Nyankore	Uganda
15.	JE15	Luganda	Uganda
16.	JE21	Runyambo	Tanzania
17.	JE22	Ruhaya	Tanzania
18.	JE23	Luzinza	Tanzania
19.	JE25	Jita/Kwaya	Tanzania
20.	JE253	Ciruuri	Tanzania
21.	JE431	Simbiti	Tanzania
22.	JE44	Zanaki	Tanzania
23.	M13	Kifipa	Tanzania & Zambia
24.	M23	Nyiha	Tanzania & Zambia
25.	M24	Malila	Tanzania
26.	M25	Safwa	Tanzania
27.	M31	Nyakyusa	Malawi & Tanzania
28.	M42	Bemba	Zambia
29.	M301	Ndali	Malawi & Tanzania
30.	N12	Ngoni	Tanzania
31.	N31	Chichewa/Nyanja	Malawi & Zambia
32.	P14	Ngindo	Tanzania
33.	P21	Ciyao	Malawi, Mozambique & Tanzania
34.	P23	Makonde	Mozambique & Tanzania
35.	P31	Makhuwa	Mozambique & Tanzania
36.	R30	Herero	Angola, Botswana & Namibia
37.	S10	Shona	Zimbabwe
38.	S31	Setswana	Botswana & South Africa
39.	S33	Sesotho	Lesotho & South Africa
40.	S41	Xhosa	South Africa
41.	S42	Zulu	South Africa
42.	S44	Ndebele	Zimbabwe

**Table 2: Participants in elicitation of terms in Eastern Bantu**

S/N	Language	Informants
1.	Chingoni	9

2.	Giha	11
3.	Gogo	4
4.	Jita/Kwaya	3
5.	Kibena	3
6.	Kifipa	3
7.	Kihehe	4
8.	Makhuwa	1
9.	Makonde	1
10.	Malila	6
11.	Ngindo	2
12.	Nyakyusa	6
13.	Nyamwezi	4
14.	Nyankore	2
15.	Nyiha	5
16.	Nyiramba	7
17.	Safwa	6
18.	Shambaa	6
19.	Sukuma	14
20.	Zanaki	7
	<b>TOTAL</b>	<b>104</b>

**Table 3: Discussants for selected Eastern Bantu**

S/N	Language	Informants
1.	Chichewa	1
2.	Chingoni	1
3.	Ciyao	1
4.	Giha	3
5.	Kihehe	3
6.	Makhuwa	1
7.	Makonde	3
8.	Nyamwezi	1
9.	Nyiramba	1
10.	Safwa	1
11.	Setswana	1
12.	Sukuma	3
	<b>TOTAL</b>	<b>20</b>

### 3.2 Data analysis

Data collected were analysed using the thematic fashion which involves combination of similar facts and collection of the same ideas into one cluster of points (Bown 2008). Similar points from discussants were grouped into clusters. With regard to the comparative purpose of the research, data from published materials (Brown 1983; Heine 1997; Mietzner & Pasch 2007) were compared to the data gathered from other sources.

### 4. Findings

This section presents findings of this paper. Besides noting seven different ways through which terms for cardinal directions are derived in Bantu languages, the paper also noted that there are variations between languages. It was also observed that no individual language employed more than five and less than three strategies for deriving cardinal terms.

#### 4.1 Ethnic groups

Out of 42 Eastern Bantu languages, ten make reference to ethnic groups as sources of cardinal points (Table 4). This constitutes 23.80 percent of the sample. Thus, in line with Otten (2005), Mietzner & Pasch (2007) and Lusekelo (2012), reference to ethnic groups acts as a proper source of the terms for cardinal points in Eastern Bantu languages.

**Table 4: Nomenclatures derived from names of ethnic groups in Eastern Bantu**

S/N	Language	East	West	North	South
1.	Setswana	<i>botlhaba-tsasi</i>	<i>bophirima-tsasi</i>	<i>bokane</i>	<i>borwa</i>
2.	Sesotho	<i>botjhabela</i>	<i>bophirimela</i>	<i>bokane</i>	<i>borwa</i>
3.	Sukuma	<i>kiiya</i>	<i>ng'weli</i>	<i>sukuma</i>	<i>dakama</i>
4.	Nyamwezi	<i>kiiya</i>	<i>kung'weli</i>	<i>kusukumá</i>	<i>kudakamá</i>
5.	Gogo	<i>kuchilima</i>	<i>imwezi</i>	<i>kusukuma</i>	<i>kutakama</i>
6.	Nyiramba	<i>kiilima</i>	<i>mweéli</i>	<i>sukúma</i>	<i>takáma</i>
7.	Nyaturu	<i>kukilima</i>	<i>kumwezi</i>	<i>kusukuma</i>	<i>kutakama</i>
8.	Nyakyusa	<i>mbukinga</i>	<i>mbundali</i>	<i>mbusafwa</i>	<i>kumalundi</i>
9.	Ciyao	---	---	<i>kumpoto</i>	<i>kumwera</i>
10.	Chichewa	<i>kuvuma</i>	<i>kuzambwe</i>	<i>kumpoto</i>	<i>kumwera</i>

Findings indicate that Setswana and Sesotho developed terms associated with ethnic groups to designate north and south points. In fact, dictionaries by Matumo (1993) and Otlogetswe (2012) provide lexical entries **bokane** 'north' and **borwa** 'south'. According to Chebanne (p.c. 2018), historically these terms developed from two language families located in the southern and northern parts of the Setswana-land and Sesotho-land in Botswana and South Africa. On the one hand, the term **bokane** 'north' is related to the directions of the Nguni speaking people (Ndebele, Shona, Xhosa and

Zulu) in southern Africa. Until recently, the Nguni speakers were always located to the north of the Setswana and Sesotho tribes. On the other hand, the term **borwa** ‘south’ originates from the word **butwa** ‘Bushmen’. The Setswana and Sesotho speakers assumed that the **Batwa** people of Central Africa were similar to the Bushmen (also known as Khoisan). Geographically, the Khoisan speakers were found in the southern territories (now Eastern Cape in South Africa and Kalahari Desert in Botswana) hence **borwa** ‘south’. This explains the linking of **bokane** ‘north’ and **borwa** ‘south’ to ethnic groups.

Findings also indicated that Bantu F languages spoken in central-western Tanzania use ethnic groups to designate four cardinal directions: **sukuma** ‘north’, **dakama** ‘south’, **kiiya** ‘east’ and **ng’weli** ‘west’. According to Batibo (p.c. 2018), the lexicons of Sukuma and Nyamwezi Bantu also used similar mechanisms to derive terms for north-south and west-east. In these two languages, north is **sukuma** and south is called as **dakama** (**takama**). The dialect spoken in **sukuma**, i.e. the north, is known as **kimunasukuma** (i.e. the manner of speaking of the northerners) while the dialect spoken in the south is called **kimunadakama** (the manner of speaking of the southerners). Maganga & Schadeberg (1992) refer to **sukumá** and **dakamá** as cardinal points north and south respectively. Roth (2013) categorises the Nyamwezi speakers as **sukuma**, i.e. the persons inhabiting northern parts. Masele (2001) categorises the speakers of the southern dialect of Nyamwezi as **dakama**. Consequently, the north-south nexus is associated with two major ethnic groups in the area, namely **Sukuma** ‘northerners’ and **Dakama** (**Takama**) ‘southerners’. Lusekelo (2012, p. 9) notes that similar terms **kutakama** ‘south’ and **kusukuma** ‘north’ are used in Gogo, Nyaturu and Nyiramba.

In Sukuma language, east is referred to as **kiiya** and west is called **ng’weli** (Maganga & Schadeberg, 1992). Masele (2001), however, identifies **kiiya** and **ng’weli** as two dialects of Sukuma/Nyamwezi language. Infact, according to Batibo (p.c. 2018), these dialects are called **kimunakiiya** (the manner of speaking of the easterners) and **kimunang’weli** (the manner of speaking of the westerners). Gogo and Nyiramba languages developed similar but slightly different terms. Yukawa (1989, p. 56) provides the following entries for Nyiramba: **sukúma** ‘north’, **takáma** ‘south’, **kílima** ‘east’ and **mweéli** ‘west’. Lusekelo (2012, p. 9) reports the following terms in Gogo: **sukuma** ‘north’, **takama** ‘south’, **kuchilima** ‘east’ and **imwezi** ‘west’. The similarity between Sukuma, Nyiramba, Gogo and Nyamwezi is apparent for the terms **sukúma** ‘north’ and **takáma** ‘south’. The slight difference is shown by the terms **kiiya** and **chilima** for ‘east’ and **imwezi**, **ng’weli** and **mweéli** for ‘west’. Nonetheless, the four languages exhibit terms associated with ethnic groups. It is important to note that these terms are not static, rather they change with time. Currently, the nomenclature **sukuma** ‘north’ is being replaced by the term **shashi** ‘far north’ which references speakers of the Shashi dialect who inhabit territory north of those that speak the Sukuma dialect. It is also important to note that in some cases, locations of the ethnic groups do influence the nomenclature of cardinal points. For instance, the Ngindo speakers, whose hinterland is eastern Tanzania, refer to western-side as **kundonde** yet the Ndonge people inhabit the eastern parts of the current Ngindo-land. Nevertheless,

data analysed above indicates that reference to ethnic groups inhabiting a given point appears to be a common mechanism to designate cardinal points in Eastern Bantu.

Two cardinal terms in Table 4, that is **mpoto** and **mwera** require further discussion. The terms **mpoto** and **mwera**, which are ethnic groups, appear to attract a suggestion that they are sources of terms in Bantu. Bantu speakers called **Mpoto** (classified as N14) are located on the north-eastern side of Lake Malawi (Lake Nyasa) in the Mozambique and Tanzania border (Maho 2003). The Ciyao (as indicated by Taji [p.c. 2018]) and Chichewa speakers who are the main ethnic groups in this area, refer to the northern parts as **mpoto** which is an obvious link to Mpoto speakers located in the north. The same applies to the Mwera speakers from who is derived the term **kumwera** ‘south’ in Chichewa and Ciyao. Maho (2003) indicates that the Mwera speakers (N201) inhabit an area immediately close to Mpoto speakers in the Tanzania and Mozambique border. Therefore, it is assumed that the Mwera people of Tanzania were always south of the Ciyao speakers while the Mwera people of Malawi were always south of the Chichewa speakers. However, this association of **kumwera** ‘south’ with the speakers of Mwera, is not well founded because the Mwera people are also located north of Ciyao-land. This is in line with Mtenje (p.c. 2018) who is skeptical of the use of these terms with reference to ethnic groups.

#### 4.2 Body Parts: Head-Leg and Left-Right for North and South

Data in Brown (1983, p. 136) and Heine (1997, p. 37) show that a couple of languages adopted body-parts (i.e. left side of the body, right side of the body, back of body, front of body, eye) as sources of terms for the cardinal directions. In my data, the head-leg and left-right distinctions yielded a significant number of terms for cardinal points particularly for north and south. As shown in Table 5, six languages (representing 12.28 percent) developed terms from these sources.

**Table 5: Body-parts as sources of north-south in Eastern Bantu**

S/N	Language	North	South
1.	Bemba	<i>kukuso</i>	<i>kukulyo</i>
2.	Luganda	<i>bukiikakko</i>	<i>bukiidaddyo</i>
3.	Herero	<i>kokunéné</i>	<i>kokumuhó</i>
4.	Kihehe	<i>kumitwe</i>	<i>magulusiika</i>
5.	Chindali	<i>kumitu</i>	<i>kundeende</i>
6.	Runyambo	<i>musungwe</i>	<i>burundi</i>

Bemba, Luganda and Herero languages employ terms related to **left-right hand** for north and south. In Bemba, **kukoso** ‘the direction of the left hand’ means north and **kukulyo** ‘the direction of the right hand’ means south. According to Heine (1997), the Bemba speakers face the east, which is called **kubanga**, when they want to locate north and south points. This is similar to Luganda speakers who refer to north as **obukiika obwa’kono** ‘on the left side, direction of left, left-hand’ and south as **obukiika obwa’dyo** ‘on the right side, direction of right, right-hand’ (Blackledge

1924; Tucker 1967). Möhlig & Kavari (2008) found that in Herero the following terms are used to mark two cardinal points: **kokunéné** (right side) ‘north’ and **kokumuhó** (left side) ‘south’.

Several languages adopted **head-leg** as a source for the terms north and south. For example, Lusekelo (2012) indicated that in Runyambo, **ruguru** (top part) means north and **burundi** which comes from **rundi** (leg) refers to ‘south’. Likewise, in Kihehe north is **kumitwe** which originates from **mitwe** ‘heads’ and south is **magulusiika** derived from **magulu** which means legs. As for Kifipa, the term **kupela** is used to refer to north and **kwisika** ‘bottom part of leg’ is used for south. In my data, as well as Botne (2008), the following are the entries for Chindali: **kumitu** ‘north’ and **kundeende** ‘south’. Although Botne (2008) treats these Chindali terms as being adopted from the words **mitu** ‘uphill’ and **ndeende** ‘far down slope’, Tanzanian Chindali and Nyakyusa contains the terms **imitu** ‘heads’ and **ifitende/ichitende** ‘heels’.

### 4.3 Terrain (Uphill and Downhill)

Some Bantu languages use terrain to develop terms for cardinal points north and south. Usually, the location uphill designates “north” while downhill means “south”. Lusekelo (2012) suggested that this mechanism is adopted primarily by Bantu communities which have settled in mountainous areas such as on the slopes of Mount Kilimanjaro and Mount Rungwe in Tanzania. This mechanism is reported in fifteen Bantu languages in my data (Table 6) providing 35.71 percent of the terms in the sample.

The speakers of Malila, Nyiha and Safwa, who inhabit the southern highlands in south-western Tanzania (Nurse 1988; Walsh & Swilla 2001), developed terms related to uphill-downhill for the north-south distinctions. In Safwa the lexical entry **humwaanya** denotes ‘northern’ while **husoo** means ‘southern’. Literally, **humwaanya** means uphill while **husoo** means down valley (down slope). Malila and Nyiha innovated the terms **kumaligamba** ‘north’ and **kumalindende** ‘south’. These terms originate from the lexical entries **ligamba** ‘mountain’ and **lindende** ‘valley, depression’.

**Table 6: Uphill-downhill for north-south distinctions in Eastern Bantu**

S/N	Language	North	South
1.	Nyiha	<i>kwigamba</i>	<i>kundende</i>
2.	Malila	<i>kumaligamba</i>	<i>kundende</i>
3.	Safwa	<i>humwaanya</i>	<i>husoo</i>
4.	Giha	<i>igulu</i>	<i>haefo</i>
5.	Runyambo	<i>ruguru</i>	<i>ifo</i>
6.	Ruhaya	<i>ruguru</i>	<i>eifo</i>
7.	Giha	<i>igulu</i>	<i>haifo</i>
8.	Nyakyusa	<i>kululu</i>	<i>kwitongo</i>

9.	Ciyao	<i>kumpoto</i>	<i>kwivanda</i>
10.	Jita	<i>igulu</i>	<i>emwalo</i>
11.	Zanaki	<i>iguru</i>	<i>nyanza</i>
12.	Ngindo	<i>kuchanya</i>	<i>kumbanda</i>
13.	Makonde	<i>kuchanya</i>	<i>kuhalela</i>
14.	Chichewa	<i>kumpoto</i>	<i>kumwera</i>
15.	Ciyao	<i>kumpoto</i>	<i>kumwera</i>

Speakers of Lake Victoria Bantu (Luzinza, Ruhaya, Runyambo, and Zanaki) innovated the proto-term **\*gũdũ** to designate northern parts. Guthrie (1971) lists the entry **\*gũdũ** with the following meanings: hill, sky, top, upstream and ant-heap. Muzale (2018) and Rugemalira (2002) provide this reflex in Ruhaya and Runyambo: **ruguru** ‘higher, above, up’. To claim that uphill is associated with “north” in Lake Victoria Bantu may, therefore, not be entirely off the mark.

Hangaza and Giha, spoken in eastern parts of Lake Tanganyika, use the term **igulu** for ‘north’. Perhaps the term **kululu** ‘north’ found in Ndali and Nyakyusa originates from the proto-form **\*gũdũ** ‘uphill’. Lake Victoria and Lake Tanganyika Bantu use the term **ifo** or **hafo** ‘valley, downhill’ for ‘south’. In northern Malawi and southern Tanzania, terms such as **kwitongo** ‘downhill’ and **kwivanda** ‘downhill, lowland’ are used to designate ‘south’. Makonde and Ngindo speakers refer to the northern parts as **kuchanya**. The assumption here is that the counter-terms **kuhalela** and **kumbanda** have referents to the downhill or valley in these languages.

Now we return to the terms **mpoto** ‘north’ and **kumwera** ‘south’ which have been highlighted briefly above. Apart from the ethnic groups Mpoto (N14) and Mwera (N201), these terms seem to reference terrain in relation to Lake Malawi/Nyasa. It appears that the former derived from upland (highland) while the latter from plain land (shore land). In short, with reference to Lake Malawi/Nyasa, **mpoto** refers to highlands while **kumwera** to lowlands.<sup>2</sup> As noted earlier in section 4.1, some connections to ethnic groups appear to manifest today. To reiterate the point here, both suggestions are plausible. This is based on the points raised by native speakers. With regard to Ciyao, Taji (p.c. 2018) suggests that the word **mpoto** is derived from speakers of Mpoto Bantu who were always found north of the Ciyao traditional land. The association of **kumwera** ‘south’ with the speakers of Mwera, is not well founded because the Mwera people are also located north of Ciyao-land. This is in line with Mtenje (p.c. 2018) who is skeptical of the use of these terms with reference to ethnic groups.

#### 4.4 Water-bodies

Water bodies are prominent sources of terms for the cardinal directions in Bantu languages especially in East Africa. For instance, apart from the sun and terrain, Lake Victoria is the central source of terms used to indicate the cardinal points north, south and west in most of the Mara Bantu. The lake is traditionally called **enyanja**, **nyanza**

or **omwaro** by the members of Mara Bantu (Massamba 1977; Mreta 2008) or **rweeru** by Rutara Bantu (Muzale 2018; Rugemalira 2002). These terms are adopted as names of cardinal points. Each community on the eastern shores adopted the name of the lake to a different cardinal point. Table 7 provides terms for the cardinal directions in Mara Bantu, as recorded in dictionaries (Massamba 2002; Mdee 2008; Mreta 2008) and in my own data. Only seven languages (16.66 percent) appear to innovate the terms from water-bodies.

**Table 7: Water bodies as source of terms for cardinal directions in Eastern Bantu<sup>3</sup>**

S/N	Languages	West	North	South
1.	Jita	<i>ebugwa izoba</i>	<i>igulu</i>	<i>emwalo</i>
2.	Zanaki	<i>bugwera ryoba</i>	<i>iguru</i>	<i>nyanza</i>
3.	Simbiti	<i>nyánsha</i>	<i>kosi</i>	<i>some, range</i>
4.	Ciruuri	<i>bugwa izoba</i>	<i>emwaaro</i>	---
5.	Ngindo	<i>mbwani</i>	<i>kuchanya</i>	<i>kumbanda</i>
6.	Runyambo	<i>busungu</i>	<i>ruguru</i>	<i>ifo</i>
7.	Ruhaya	<i>bushungu</i>	<i>ruguru</i>	<i>eifo</i>

The speakers of Jita, located on the north-eastern shores of Lake Victoria and Zanaki on the south-eastern side of the same lake, developed the terms **emwalo** ‘south’ and **nyanza** ‘south’, respectively. It appears here that Lake Victoria is located south of these communities. The Simbiti speakers, on the north-eastern side of the lake, developed the term **nyánsha** for ‘west’, while Ciruuri speakers, inhabiting primarily the eastern side of the lake, developed the term **emwaaro** for north. The position of the lake plays significant role in the derivation of the terms for cardinal directions.

The Ngindo people, inhabiting the south-eastern interior of Tanzania, have innovated the term **mbwani** which primarily meant coast to reference east. The Indian Ocean, which is the primary referent for **mbwani**, is located on the eastern side of the Ngindo villages in Tanzania. Speakers of the Lake Victoria Bantu, located primarily on the western side of the lake, do not use the lake as the source of the terms for the cardinal points (cf. Mdee 2008; Murphy 1972; Muzale 2018; Rugemalira 2002).

#### 4.5 Sunrise and Sunset

Many Eastern Bantu languages derive terms for east and west from the sun. Statistically, cardinal terms derived from the sun constitute about 45.23 percent of all terms for east and west in Eastern Bantu languages. In addition, its significance is attested throughout the entire hinterland because both coastal and interior languages have developed terms from it.<sup>4</sup>

**Table 8: Sun as a source of terms for cardinal directions in Eastern Bantu**

S/N	Language	East	West	North	South
1.	Ciruuri	<i>obuturuka izoba</i>	<i>bugwa izoba</i>	<i>emwaaro</i>	---
2.	Jita	<i>obutuluka izoba</i>	<i>ebugwa izoba</i>	<i>igulu</i>	<i>emwalo</i>
3.	Luganda	<i>ebuva njuba</i>	<i>ebugwa njuba</i>	<i>bukoodaddyo</i>	<i>bukiikakko</i>
4.	Luzinza	<i>obutuluka izooba</i>	<i>bugwa izooba</i>	<i>obusungwe</i>	<i>ibogotela</i>
5.	Ruhaya	<i>buruga izooba</i>	<i>bugwa izooba</i>	<i>ruguru</i>	<i>bugotela</i>
6.	Runyambo	<i>burugwa izooba</i>	<i>bugwa izooba</i>	<i>ruguru</i>	<i>bugotela</i>
7.	Simbiti	<i>botorokaryoba</i>	<i>bugwera ryoba</i>	<i>kosi</i>	<i>sóme, range</i>
8.	Zanaki	<i>botoroka ryoba</i>	<i>bugwera ryoba</i>	<i>iguru</i>	<i>nyanza</i>
9.	Shona	<i>mabvazuva</i>	<i>manyurazuva</i>	<i>chamhembe</i>	<i>maodzanye mba</i>
10.	Chichewa	<i>kummawa</i>	<i>kumadzulo</i>	<i>kumpoto</i>	<i>kumwera</i>
11.	Ndebele	<i>empumalanga</i>	<i>entshonalanga</i>	<i>enyakatho</i>	<i>eningizimu</i>
12.	Xhosa	<i>mpumalanga</i>	<i>intshona</i>	---	---
13.	Zulu	<i>impumalanga</i>	<i>intshonalanga</i>	<i>inyakato</i>	<i>iningizimu</i>
14.	Swahili	<i>machweo</i>	<i>mawio</i>	<i>kaskazini</i>	<i>kusini</i>
15.	Gikuyu	<i>irathĩro-ini, riumĩro</i>	<i>ithũĩro-ini</i>	<i>gathikathini</i>	<i>gũthini</i>
16.	Digo	<i>mlairo wa dzuwa</i>	<i>mtswerero wa dzuwa</i>	<i>vuri</i>	<i>mwakani</i>
17.	Shambala	<i>weawa zua</i>	<i>weingiiya zua</i>	<i>wekenya</i>	<i>weishi</i>
18.	Setswana	<i>botlhaba-tsasi</i>	<i>bophirima-tsasi</i>	<i>bokane</i>	<i>borwa</i>
19.	Sesotho	<i>botjhabela</i>	<i>bophirimela</i>	<i>bokane</i>	<i>borwa</i>

Both Rutara and Mara Bantu located around Lake Victoria adopted terms related to sunrise and sunset to mark east-west distinction. Table 8 above shows two patterns. On the one hand, the combination of the word **toroka** or **tuluka** ‘come out, emerge’ and **izoba** or **ryoba** ‘sun’ yields sunrise hence “east” in Mara Bantu languages. Similarly, the amalgamation of the word **rugwa** ‘rise, ascend’ with the word **izoba** or **ryoba** ‘sun’ results to sunrise hence east in Rutara Bantu languages. Thus, the notions ascend, come out, emerge and rise entail “eastern” in eastern Bantu languages. On the other hand, Rutara and Mara Bantu adopted the combination of **bugwa** ‘fall, descend’ or **bugwera** ‘fall into, descend into’ and **izoba** or **ryoba** ‘sun’ for “west”. Therefore, the notions **descend** and **fall** entail “western” in eastern Bantu languages. Guthrie (1971) reconstructed two important terms here. The sun obtains its proto-form **\*juba** while the verbs “fall” and “rise” are reconstructed as **\*gu-** and **\*tuok-**, respectively. Eastern

Bantu innovated these terms for the rise of the sun **\*took- joba** “east” and fall of the sun **\*go- joba** “west”.

Many Nguni languages have similar terms. Table 8 above shows that sunrise and sunset is attested in most eastern Bantu languages. In the Nguni cluster of Bantu languages, the terms **impumalanga** ‘east’ and **intshona** ‘west’ are encountered in Ndebele, Shona, Xhosa and Zulu. While Guthrie (1971) reconstructed the term **\*dagg-** ‘shine’ for the Proto-Bantu, Raper (2005) pointed out that the name **mpumalanga** claims origin from Zulu language where it means sunrise or the sun comes out. In addition, many Bantu languages spoken in the interior of southern Africa developed terms related to the sun. For instance, the dictionaries for Setswana (Matumo 1993; Otlogetswe 2012) and my data for Sesotho, the eastern side is called **botlhaba-tsasi** and western parts are named **bophirima-tsasi**. The expression **tsasi** is a shorthand for **letsasi** ‘sun’. Therefore, the lexical entries **botlhaba** means the place where the sun rises (i.e. east) and **bophirima** means the point where the sun sets (i.e. west).

Many Bantu languages spoken in the interior of Africa also developed terms related to sunrise and sunset for east-west distinctions. Chichewa adopted the words **kumvuma** ‘sunrise’ and **kumadzulo** ‘sunset’. The former has come to be used to refer to East while the latter has reference to West.<sup>5</sup> Möhlig & Kavari (2008) provide **komuhúka** ‘east’ and **kongurôvá** ‘west’ in Herero. The former means sunrise and the latter sunset. In Malila language, terms **kumalitala** ‘east’ and **kunshinshi** ‘west’ are related to the lightness or sunrise (day-time) and sunset or darkness ‘night-time’.

#### 4.6 Winds

Coining of cardinal terms from winds is evident in a few languages. Two of these languages, namely, Digo and Swahili (spoken in Kenya and Tanzania) are representative in this case.<sup>6</sup> The data discussed here come from two sources, namely Nicolle et al. (2004) for Digo and TUKI (2001) for Swahili. The point to reiterate here is that the direction of the monsoon winds plays a vital role in innovation of cardinal terms in coastal Bantu languages such as Digo and Swahili. This is in line with Brown (1983) and Heine (1997) who suggested that coastal languages such as Zulu in South Africa innovated the terms north and south from winds.

Nicolle et al. (2004) list the lexical entry **vuri** ‘north wind’ in Digo. Again, they list **kusi** as “1) southerly wind, south monsoon (blowing from May to October); *kusi*. 2) heavy wind, gale, storm” (Ibid, p. 83). The terms **vuri** and **kusi** are commonly used by the speakers of Digo to refer to north and south. In addition, Digo developed other terms with reference to north-south points. Nicolle et al. (2004) list the terms for north and south that derive from winds called **kaskazi** ‘northerly winds’ and **kusi** ‘southerly winds’. TUKI (2001) list the following cardinal terms related to winds: **kaskazi** or **kaskazini** ‘north’ and **kusi** or **kusini** ‘south’. The former is associated with the northerly monsoon winds while the latter is derived from southerly monsoon winds. Mietzner & Pasch (2007) discuss the terms **kusi** ‘southerly winds’ and **kaskazi** ‘northerly winds’ as sources for the cardinal points north and south in Swahili.

#### 4.7 Lexical Borrowing

Mietzner & Pasch (2007) argue that there is no evidence of exchange of cardinal terms between African languages. To the contrary, findings in this study revealed that language contact yielded borrowing of cardinal terms from one language to another. Table 9 shows that out of 42 languages, nine (21.42 percent) borrowed terms for cardinal directions from other languages.

**Table 9: Foreign terms in eastern Bantu**

S/N	Language	East	West	North	South
1.	Chingoni	<i>kumashariki</i>	<i>kumagharibi</i>	<i>kukaskazini</i>	<i>kusini</i>
2.	Ciyao	<i>mashariki</i>	<i>magharibi</i>	<i>kumpoto</i>	<i>kwivanda</i>
		<i>kumashariki</i>	<i>kumagharibi</i>	<i>kukasikazini</i>	<i>kusini</i>
3.	Digo	<i>mashariki</i>	<i>magharibi</i>	<i>kaskazini</i>	<i>kusini</i>
		<i>mlairo wa dzuwa</i>	<i>mtswerero wa dzuwa</i>	<i>yuri (north wind)</i>	<i>mwakani</i>
3.	Gikuyu	<i>irathĩro-ini, riumĩro</i>	<i>ithũĩro-ini</i>	<i>gathikathini</i>	<i>gũthini</i>
4.	Kifipa	<i>kumashari</i>	<i>kumaghari</i>	<i>kupela</i>	<i>kwisika</i>
5.	Makhuwa	<i>umashariki</i>	<i>umagharibi</i>	<i>ukasikazini</i>	<i>ukusini</i>
6.	Maraba (Makonde)	<i>kumashaliiki</i>	<i>kumaghaliibi</i>	<i>kukasikaziini</i>	<i>kukusiini</i>
	Makonde (Chinnima)	<i>kuchanya</i>	<i>kuhalela</i>	---	---
7.	Shambala (my data)	<i>mashaiki</i>	<i>maghaibi</i>	<i>kaskazini</i>	<i>kusini</i>
	Shambala (Besha 1993)	<i>weawa zua</i>	<i>weingiiya zua</i>	<i>wekenya</i>	<i>weishi</i>
8.	Western Swahili	<i>est</i>	<i>oust</i>	<i>nord</i>	<i>sud</i> <sup>7</sup>
	Standard Swahili	<i>mashariki</i>	<i>magharibi</i>	<i>kaskazini</i>	<i>kusini</i>

Nurse & Spear (1985) discussed the penetration of some oceanic terms into Swahili. For example, the terms **kaskazini** derived from the Arabic term **kaskazi** ‘northerly winds’ and **kusini** was adopted from the southerly winds called **kusi** in Arabic. Table 9 shows some Bantu languages which borrowed terms **kaskazini** ‘north’ and **kusini** ‘south’ from Swahili. Four clusters of languages emerge here. Firstly, there are Bantu languages whose cardinal terms have been completely replaced by Swahili terms. This is illustrated by Chingoni, which borrowed **kukaskazini** ‘north’, **kusini** ‘south’, **kumashariki** ‘east’ and **kumagharibi** ‘west’, and Makhuwa which borrowed **ukaskazini** ‘north’, **ukusini** ‘south’, **umashariki** ‘east’, and **umagharibi** ‘west’.

Secondly, a group of Eastern Bantu languages borrowed Swahili terms for north and south and maintained some indigenous terms for east and west. Gikuyu lexicon exhibits the borrowed terms **gathikathini** ‘north’ and **gũthini** ‘south’ respectively. Gikuyu innovated the terms **irathĩro-ini** ‘sunrise’ for “east” and **ithũiro-ini** ‘sunset’ for “west”. The Makonde language exhibits two structures, one with indigene terms namely **kuchanya** ‘north’ and **kuhalela** ‘south’ (Kraal 2005), and the other one with Swahili loanwords, i.e. **kaskaziini** ‘north’, **kusiini** ‘south’, **magharĩibi** ‘west’ and **mashariki** ‘east’. Amani (2013) pointed out that due to prolonged contact, Swahili influenced Maraba, the coastal dialect of Makonde.

Thirdly, some Bantu languages borrowed terms for marking east-west distinctions. For instance, Kifipa has terms **kumashari** ‘east’ and **kumaghari** ‘west’ borrowed from Swahili. My data indicates that Kifipa uses the local terms **kupela** ‘north’ and **kwisika** ‘south’. These indigenous terms co-occur with the borrowed terms within the lexicons of these languages.

Lastly, some Bantu languages maintain two arrays of terms, i.e. an array of indigenous terms in consonant with borrowed ones. Ciyao, Digo and Shambala are good cases of this kind of languages. Both indigene and Swahili terms co-exist. For instance, in Ciyao, the terms **kumpoto** ‘north’ and **kumwera** ‘south’ co-occur with such borrowed terms as **kasikazini** ‘north’ and **kusini** ‘south’.

## 5. Discussion

The frequency of the mechanisms used to derive terms for the cardinal directions in Eastern Bantu languages varies, as shown in Table 10. Notice also that some Bantu languages innovated more terms for the same cardinal point and some languages borrowed terms from other languages. Sunrise-sunset is the source from which the highest number of cardinal terms were derived.

**Table 10: Occurrences of the sources of the terms across Eastern Bantu**

S/N	Mechanisms or strategies for expression of the cardinal directions	Number of languages	Occurrence (out of 42)	Percent (out of 70)
1.	The sunrise and sunset	19	45.23	27
2.	Uphill and downhill	15	35.71	21
3.	Ethnic groups	10	23.80	14
4.	Lexical borrowing	9	21.42	12
5.	Water-bodies	7	16.66	10
6.	Body-parts (head-leg and left-right hand)	6	12.28	9
7.	Winds	4	9.52	7
	<b>TOTAL</b>	<b>70</b>	<b>164.62</b>	<b>100</b>

The word counts in Table 10 above do not offer a clear picture of the prominence of some sources. The analysis below shows the prominence of terms related to north-south as opposed to east-west.

### 5.1 Salience of the Terms

Two terms appear to have obtained a lot of frequency in the data presented in the preceding section, namely north and south, rather than east and west as suggested by Brown (1983). Table 11 provides a summary of the occurrences of the terms for the cardinal directions in Eastern Bantu.

**Table 11: Salience of the terms across languages eastern Bantu**

S/N	Sources of terms	Cardinal point	Number of languages	Percentage
1.	Sun	East-West	19	27
2.	Terrain (uphill-downhill)	North-South	15	21
3.	Ethnic groups	North-South	10	14
	Ethnic groups	East-West	4	6
4.	Borrowing of terms	East-West-North-South	7	10
	Borrowing of terms	East-West	2	3
5.	Water-bodies	North-South	5	7
	Water-bodies	East-West	2	3
6.	Body-parts	North-South	6	9
	<b>TOTAL</b>		<b>70</b>	<b>100</b>

Based on Table 11 above, the word count for the occurrences of the terms yields the following results: **north 50, south 48, east 35 and west 35**. The frequencies of the terms indicate that north and south are more salient than east and west. The combination of north-south occurred 44 times while the combination of east-west occurred 34 times. In addition, based on these word counts and frequency of use, the importance of the sun is almost a quarter of all the terms in Eastern Bantu. While Heine (1997) found that 57 percent of the terms in the world languages derive from the sun, Table 11 shows the sun accounts for only 27 percent of terms for cardinal directions in Eastern Bantu. Therefore, the salience of east and west is surpassed by north and south.

Brown (1983) suggested that the sun assigns more salience to east rather than west. Though this suggestion is confirmed by the word count given in Table 11, the sun does not mean salience as a source of terms but a point of general reference. In fact, the combination of terrain (uphill and downhill) and ethnic groups outnumbered the sun as the main sources of terms related to north and south in Eastern Bantu. The dominance of sunrise and sunset does not entail salience, as Brown (1983) suggests. It indicates

actualisation and perfection of the general place assumed to be east (sunrise) and west (sunset). Since the location of the speaker is central for the marking of the actual east or west side, the sun becomes a good point of reference. Therefore, in most parts of eastern Bantu-land, sunrise and sunset is centrally used as a point of reference. This is possibly a result of vast lands which allow proper vision of the sun. Both Brown (1983) and Haviland (1998) suggested that actualization of the cardinal points results from the location of the speaker and direction of the main landmark in a given community.

The salience of the sun and east direction is questioned by the cultural features assigned to west. In Gogo society of Tanzania, both sun and wind are used to indicate the west and east. In Gogo culture, east is a source of light but west is a point of diseases and curses. Since the direction of winds in central Tanzania is from the east to west, the diseases are cursed to the west. Since Lusekelo (2012) showed that Gogo people assign west to darkness and diseases, the prominence of east would appear to surpass west. This entails that the combination of east and west cannot obtain salience in eastern Bantu.

The claims above can be supported further by evidence from the use of body-parts to name cardinal directions. While Heine (1997) found that the terms **head-and-foot/leg** may be adopted for east and west in African languages, the foregoing discussion shows that these are terms coined for the north and south in Eastern Bantu. Perhaps this is associated with the speakers of the Bantu languages who, in most cases, have remembrance of their homes of origin, which is the north. Vansina (1995, p. 194) concluded that Bantu people migrated in many directions southward from the rainforest (in Congo and Cameroon). The second wave commenced in the Great Lakes further south to upper middle Zambezi. Therefore, Eastern Bantu recall their home of origin being in the north, i.e. in the direction of the head. In addition, speakers of some Eastern Bantu tend to face the east when locating north and south. This appears to be the case in Bemba and Luganda in which left-hand is equated to north and right-hand to south. Here the prominence falls on the north and south.

## **5.2 Special Cases for Eastern Bantu**

The foregoing discussion revealed two cases that require special attention. The first case involves previous studies by Trager & Trager (1970), Brown (1983), Heine (1997) and Haviland (1998) which did not indicate the usage of ethnic groups as sources of the terms for the cardinal directions. Mietzner & Pasch (2007) and Lusekelo (2012) pointed out that neighbouring ethnic groups are good sources of names of cardinal points in African languages. The foregoing discussion indicated that cardinal terms may also derive from names of dialects as is the case with languages as Nyamwezi, Sukuma Nyaturu and Nyiramba in central Tanzania. For instance, the dialects of Nyamwezi and Sukuma are used to derive five terms: **sukuma** 'north', **shashi** 'far north', **dakama** 'south', **kiiya** 'east' and **ng'weli** 'west'.

Apart from cardinal terms derived from dialects of the same language, terms for the cardinal directions are associated with ethnic groups of different language family, as is

the case with the Khoisan and Nguni groups in Sesotho and Setswana. Bantu communities which relate ethnic names to cardinal names seem to inhabit the interior of Africa. For example, both Setswana and Sukuma speakers inhabit the interior of Botswana and Tanzania respectively. In the former, ethnic names and the sun act as sources of terms while in the latter only ethnic groups are associated with names of cardinal points.

In addition, the location of the cardinal points keeps changing depending on the location of the speakers of a given dialect. Once the northerners have settled into an area, communities to the north of that area may be adopted to indicate north. This is the case with the ethnic group **Shashi** which have lately become a marker for north amongst the Sukuma of Tanzania.

The second case relates to the suggestion by Mietzner and Pasch (2007) that there is no borrowing of nomenclature in Nilotic and Ubangian languages. This position does not hold for Bantu languages as revealed by the present study. Most of the Swahili names have penetrated into Ciyao, Chingoni, Makonde (Maraba), Matengo and Makhuwa along the Ruvuma River. Ciyao and Makonde (Maraba) speakers have been in contact with the coastal Swahili societies for a long time (Abdallah 1919; Ngunga 2002; Amani 2013) which has resulted into borrowing of terms especially those associated with winds.

Furthermore, the exchange of linguistic material between communities from different language families might have occurred over time. For instance, most of the Bantu communities settled in central Tanzania have developed terms similar to Datooga, the Nilotic language of Tanzania. Heine (1997) and Mietzner & Pasch (2007) mention **taqameera** 'south' and **sukumeera** 'north' in Datooga. These two terms are pervasively used in Gogo, Sukuma, Nyamwezi, Nyaturu and Nyiramba.

## **6. Conclusion**

The discussion herein articulated seven sources of terms for the cardinal directions in Eastern Bantu languages: names of ethnic groups, body-parts, direction of sunrise and sunset, water-bodies, terrain, winds, and lexical borrowing. The findings presented in the foregoing discussion improved on the information given by Otten (2005), Mietzner & Pasch (2007) and Lusekelo (2012). As opposed to these previous studies, this paper established that reference to ethnic communities is the most dominant source of terms in Eastern Bantu followed by terrain (uphill and downhill). The paper also established that north and south distinction is predominant in Eastern Bantu hence it becomes more salient than east and west. This is contrary to earlier studies which suggested that east and west are more salient than north and south. In fact, the sunrise and sunset, which was suggested to be abundantly used in world languages to yield east and west, does not manifest in some Bantu languages spoken in central Tanzania like Sukuma, Nyamwezi, Nyiramba and Gogo, among other languages. Consequently, the sun allows east-west to obtain less salience. Lastly, the foregoing discussion revealed that, contrary to observations that borrowing of foreign term does not obtain in Nilotic and

Ubangian languages, Eastern Bantu languages exchange linguistic materials, mainly from Swahili into such interior Bantu languages as Chingoni and Makhuwa.

## Notes

1. Specifically, I am grateful to the following Bantuists for the discussion on the terms used in the languages given in brackets: Andy Chebanne (Setswana), Herman Batibo (Sukuma), Julius Taji (Ciyao), Atikonda Mtenje (Chichewa), Pendo Mashota (Safwa), Amani Hamisi & Dominick Makanjila (Makonde), Fahamu Kasavaga (Kihehe), Gastor Mapunda (Chingoni), and Fabiola Hassan (Makhuwa). Equally, I am grateful to two anonymous reviewers and the editor of the journal for highlighting important lines which needed improvement. The remaining shortcomings are mine.
2. Apart from my sources, my informants suggested that one would argue that **kumwera** ‘south’ is derived from winds called **mwera** that blow across Lake Malawi/Nyasa.
3. The term **sungu** or **shungu** which has reference to tree species derived the cardinal point west of Lake Victoria. In Ruhaya and Runyambo, **misungwi** (**bushungu, busungu**) ‘west’ is associated with vegetation. Nonetheless, based on the present data, this cannot be confirmed.
4. One cardinal term derived from moon-light in Gogo, i.e. **imwezi** (or **kumwezi**) ‘moon’ is used to mean “west”.
5. I am grateful to my informants for highlighting that the word **kuzambwe** ‘west’ is also used in Malawi. Many Chichewa speakers use that term to refer to “west”.
6. Both Zulu and Ndebele developed terms related to monsoon winds: **inyakatho** ‘north’ and **iningizimu** ‘south’ (Brown 1983).
7. It appears that Western Swahili spoken in Congo has lexical terms borrowed from French, the official language of DRC (Nassenstein 2016).

## References

- Abdallah, Y. B. (1919). *The Yaos: Chikala cha Wayao*. London: Frank Cass.
- Amani, H. (2013). Morphological integration of lexical borrowing in Chimalaba. *Journal of Linguistics and Language in Education*, 7 (2), 38-50.
- Barlow, A. R. (1975). *English-Kikuyu dictionary*. Oxford: Clarendon Press.
- Besha, R. M. (1993). *A classified vocabulary of the Shambala language with outline grammar*. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.

- Blackledge, G. R. (1924). *Luganda-English and English-Luganda dictionary*. Oxford: The Sheldon Press.
- Botne, R. (2008). *A Chindali and English dictionary with an index to Proto-Bantu roots*. Philadelphia: American Philosophical Society.
- Bowern, C. (2008). *Linguistic fieldwork: A practical guide*. New York: Palgrave Macmillan.
- Brown, C. H. (1983). Where do cardinal direction terms come from? *Anthropological Linguistics*, 25(2), 121-61.
- Felberg, K. (1996). *Nyakyusa-English-Swahili and English-Nyakyusa dictionary*. Dar es Salaam: Mkuki na Nyota Publishers.
- Guthrie, M. (1971). *Reconstructed lexical items: Comparative Bantu*, vol. 2. Farnborough, Hants: Gregg Press Limited.
- Haviland, J. B. (1998). Guugu Yimithirr cardinal directions. *Ethos*, 26 (1), 25-47.
- Heine, B. (1997). *Cognitive foundations of grammar*. New York, Oxford: Oxford University Press.
- Kraal, P. J. (2005). *A grammar of Makonde (Chinnima, Tanzania)*. Doctoral thesis, Leiden University.
- Lusekelo, A. (2012). The expression of cardinal directions in the Tanzanian Bantu languages. *Occasional Papers in Linguistics*, University of Dar es Salaam, 3, 1-18.
- Maganga, C. & Schadeberg, T. C. (1992). *Kinyamwezi: Grammar, texts, vocabulary*. Cologne: Ruediger Koeppe Verlag.
- Maho, J. F. (2003). A classification of the Bantu languages: an update of Guthrie's referential system. In D. Nurse & G. Philippson (Eds.), *The Bantu languages*. New York: Routledge, 639-651.
- Masele, B. F. Y. P. (2001). *The linguistic history of SiSuumbwa, KiSukuma and KiNyamwezi in Bantu Zone F*. Doctoral thesis, Memorial University of Newfoundland, Canada.
- Massamba, D. P. B. (1977). *A comparative study of the Ruri, Jita and Kwaya "languages" of the eastern shores of Lake Nyanza (Victoria)*. MA thesis, University of Dar es Salaam.
- Massamba, D. P. B. (2005). *Ciruuri-Kiswahili-English lexicon*. Dar es Salaam: Language of Tanzania Project.
- Matumo, Z. I. (1993). *Setswana-English-Setswana dictionary*. Gaborone: Botswana Book Centre.

- Mdee, J. S. (2008). *Jita-Swahili-English lexicon*. Dar es Salaam: Language of Tanzania Project.
- Mietzner, A. & Pasch, H. (2007). Expressions of cardinal directions in Nilotic and in Ubangian languages. *Skase Journal of Theoretical Linguistics*, 4 (3), 17-31.
- Möhlig, W. J. G. & Kavari, J. U. (2008). *Reference grammar of Herero (Otjiherero)*. Cologne: Ruediger Koeppel Verlag.
- Mreta, A. (2008). *Simbiti-Swahili-English lexicon*. Dar es Salaam: Language of Tanzania Project.
- Murphy, J. D. (1972). *Luganda-English dictionary*. Washington DC.: The catholic University Press.
- Muzale, H. R. T. (2018). *Ikaningambo y'Oruhaya*. Dar es Salaam: Language of Tanzania Project.
- Nassenstein, N. (2016). *Kivu Swahili texts and grammar notes*. Muenchen: Lincom Europa.
- Nicolle, A., Mwalonya, J., Nicolle, S. & Zimbu, J. (2004). *Mgombato: Digo-English-Swahili Dictionary*. Kwale: Digo Language and Literacy Project.
- Nurse, D. (1988). The diachronic background to the language communities of southwestern Tanzania. *Afrika und Übersee* 9, 15-115.
- Nurse, D. & Spear, T. (1985). *The Swahili: Reconstructing the history of an African society 800–1500*. Philadelphia: University of Pennsylvania Press.
- Otlogetswe, T. J. (2012). *Tlhalosi ya medi ya Setswana*. Gaborone: Medi Publishers Ltd.
- Otten, D. (2005). Cardinal directions and environmental concepts of landscape in Kwanayama (Owambo). *Afrikanistik online 2005*. <http://www.afrikanistik-online.de/archiv/2005/249/> (Accessed: November 2011).
- Raper, P. E. (2005). *Dictionary of southern African place names*. Johannesburg: Jonathan Ball Publishers.
- Roth, T. (2013). The major dialects of Nyamwezi and their relationship to Sukuma: A time-based perspective, *Journal of Linguistic Geography*, 1, 125-140.
- Rubanza, Y. (2008). *Zinza-Swahili-English lexicon*. Dar es Salaam: Language of Tanzania Project.
- Rugemalira, J. M. (2002). *Runyambo-Kiswahili-English lexicon*. Dar es Salaam: Language of Tanzania Project.
- Rugemalira, J. M. (2009). *Cigogo-Swahili-English dictionary*. Dar es Salaam: Language of Tanzania Project.

- Stirling, L. (2010). Space, time and environment in Kala Lagaw Ya. In B. Baker, I. Mushin, M. Harvey & R. Gardner (Eds.), *Indigenous language and social identity: Papers in honour of Michael Walsh*. Canberra: Pacific Linguistics, College of Asia and the Pacific, Australian National University, 179-203.
- Taji, J. J. (2017). *Yao-English-Swahili dictionary with English and Swahili glosses*. Dar es Salaam: Language of Tanzania Project.
- Trager, G. L. & Trager, F. H. (1970). The cardinal directions at Taos and Picuris. *Anthropological Linguistics*, 12 (2), 31-37.
- Tucker, A. N. (1967). *Luganda-English dictionary*. Oxford: Clarendon Press.
- TUKI (Taasisi ya Uchunguzi wa Kiswahili). (2001). *Kamusi ya Swahili-Kiingereza*. Dar es Salaam: Institute of Swahili Research.
- Vaux, B. & Cooper, J. (1999). *Introduction to linguistic field methods*. Munich: Lincom Europa.
- Vansina, J. (1995). New linguistic evidence and 'The Bantu Expansion'. *The Journal of African History*, 36 (2), 173-195.
- Walsh, M. T. & I. N. Swilla (2001). Linguistics in the Corridor: A review of research on the Bantu languages of South-West Tanzania, North-East Zambia and North Malawi. *Journal of Asian and African Studies* 61, 275-302.
- Yukawa, Y. (1989). *A classified vocabulary of the Nilamba language*. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.