

Grammar of Location and Motion in Zande¹

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Abstract

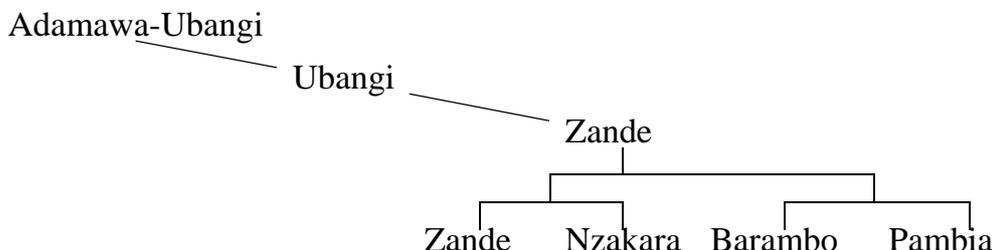
In Zande expressions of position and motion are arranged on a gamut in correlation with increasing syntactic complexity. Topological relations, expressed by basic locative construction are at the left end, directed motion at the right end.

Directed translational motion is marked by the preposition ku, which also marks angular location. Topological relations, in situ motion and undirected translational motion do not get a specific marking. This indicates the interrelatedness of stasis and motion on the one hand and undirected and directed motion on the other hand.

1 Introduction

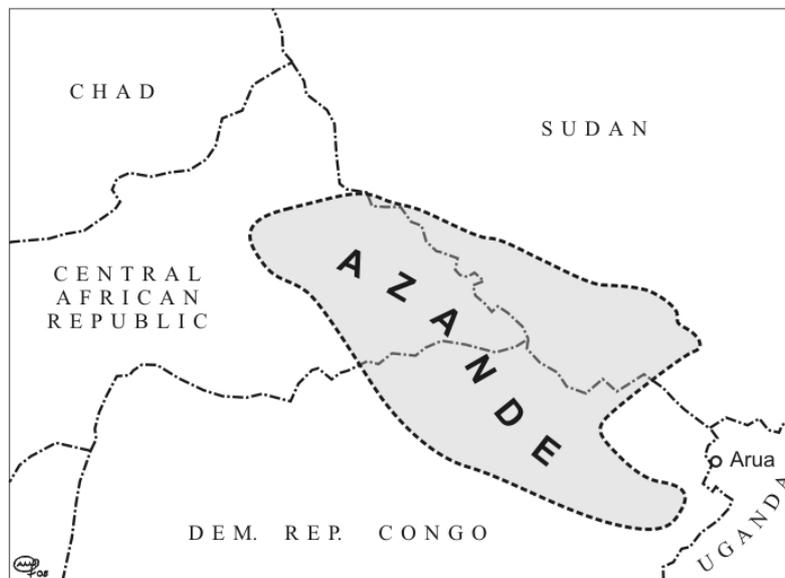
Zande is an Ubangian language spoken, according to standard sources (Gordon 2005), by about one million speakers in the triangle Sudan-DR Congo-Central African Republic. The approximate Zande territory, as it was documented in the Northern Bantu Border Survey (Tucker and Bryan 1956), is outlined in Figure 2. Presently, there are also large Zande communities in the capitals of the three countries, Khartoum, Bangi and Kinshasa. Furthermore, many Zande refugees went to Uganda, where they live in Arua, partly inside refugee camps and partly within the town, as well as in Kampala.

Figure 1. The genetic affiliation of Zande (Gordon 2005)



¹ This study is a result of the research project *Flussläufe als Korridore der Transmission typologischer Merkmale*, sponsored by the German Research Foundation to whom I express my deeply felt gratitude. I am very much indebted to my Zande informants in Kampala and Arua, in particular Daniel Badagbu, John Aroni Purangi, Payako Simon, Justin Ambrose and Jackson Thaban Gidi. I further owe thanks to two anonymous reviewers and to Felix Ameka for numerous critical comments. All weaknesses are, however, mine. Finally, I want to thank Kathrin Kolossa for editing my English.

Figure 2. The Zande territory



Zande is a fairly strict SVO language. Only in subordinate clauses introduced by *wa* ‘since, as’ may the verb precede the subject; if the existence verb *du* occurs in this type of subordinate clause, subject-verb inversion is even obligatory (Boyd 1998: 40f), e.g. *wa du a-ge ti ngba-ro ...* (since be PL-termite at mouth-2SG.POSS) ‘since there are [rests of] termites [that you ate] at your mouth ...’ In inalienable possessive phrases the possessed precedes the possessor, e.g. *ri-re* (head-1sg.poss) ‘my head’. In alienable possessive phrases, however, the order is reversed and the sequence of possessor and possessed is preceded by a morpheme *ga*, e.g. *ga gbiya bambu* (POSS king house) ‘the king’s house’. Spatial, temporal and concomitant relations are expressed by prepositions.

Like the neighbouring languages, Zande has lexical and grammatical tone and a \pm ATR vowel distinction. Zande has logophoric pronouns. A well-known feature of the language is its four-gender-system, which is almost exclusively realised on pronouns. Agreement is marked only on adjectives (Claudi 1985: 105-113) and on participial forms of intransitive verbs in attributive function (Pasch, forthcoming).

Zande is relatively well described. There are a number of descriptive grammars, e.g. Corombaroli (1895), Lagae and Vanden Plas (1921), Gore (1926),² two comparative grammars by Tucker (1959) and Santandrea (1965), and dictionaries, e.g. Gore and Gore ([1931] 1952), Lagae and Vanden Plas (1922, 1925). Specific investigations concern the four-gender-system of Zande (Claudi 1985), possessive constructions (Boyd 1987), verbal morphology (Boyd 1995a, b) and vowel harmony (Boyd 1997).

So far locative constructions have only been dealt with in the discussion of prepositions and adverbials without going into details. The present paper is the first approach to a grammar of space in Zande.

² See also the unpublished theses by Kumbatulu (1987) and Boyd (1980).

This study is based primarily on data collected during fieldwork in Kampala and in Arua (NW Uganda) in March-April 2007. In Arua, there are thousands of refugees from Southern Sudan who live either in the refugee camps 10 km off the town or in the town itself among the Lugbara and other refugees. The ethnic composition of the Southern Sudanese in Arua reflects that of Southern Sudan: the Zande constitute the second most important ethnic group after the Dinka.

Apart from the data collected in the field³, examples have been taken from two Zande stories by Evans-Pritchard (1931, 1956), the grammar by Gore (1926), short texts by Gero (1968) and two articles by Boyd (1995a, 1998).

The spelling of the examples is close to that of the standard orthography⁴; neither tones nor \pm ATR vowel quality are marked. Morpheme boundaries have been inserted in order to increase the transparency of the examples.

The aim of this paper is to show how Zande can be classified according to Talmy's (1985) typology of verb-framed and satellite-framed languages. This question is investigated with regard to horizontal and vertical motion in intransitive motion events, i.e. where the Figure is the grammatical subject. Following Talmy (1985: 70, 2000: 25f), situations of motion and the continuation of a stationary location are treated alike as motion events. The linguistic expressions of static situations and motion events or dynamic situations share similar grammatical means. On the basis of growing syntactic complexity of the expressions they can be arranged along a gamut "static motion (= location) \leftrightarrow translational motion." The first part of the study is organised according to the growing complexity of the syntactic constructions. The second part of this study will demonstrate the importance of the features Directedness and Goal orientation in expressions of both location and motion.

Chapter 2 introduces the locative prepositions of Zande and discusses their etymology. Chapter 3 deals with topological situations at the left end of the gamut: verbless basic locative constructions and topological situations containing a locative verb are examined. Chapter 4 analyses expressions of motion events (in the narrow sense), beginning with the analysis of *in situ* motion. The analysis of translational motion is divided into two subsections, undirected motion and directed motion. The latter is primarily concerned with the investigation of the Direction marking preposition *ku* 'towards'. The conclusions are drawn in chapter 5.

³ Most examples were elicited using Melissa Bowerman's Topological Relations Picture Series or the Frog Story, others on the base of daily situations observed in Arua.

⁴ The present orthography is based on the principles laid down by the International Institute of African Languages and Cultures (Report of the Rejaf Language Conference 1928). Unfortunately, there is no sufficiently comprehensive dictionary which could be used as a work of reference to check the correct spelling of all words. The orthographies of the different authors working on Zande show considerable differences.

2 Locative prepositions

In many topological relations as well as in motion events asymmetrical constellations between Figure and Ground are described by locative prepositions. By far the majority of these are grammaticalised component part nouns which function as syntactic prepositions.⁵ *Da* ‘as far as, until’ is obviously derived from the verb *da* ‘arrive.’ Apparently, *ku* ‘to, towards’ and *ti* ‘at, on’ are the only genuine locative prepositions. Table 1 lists the most frequent locative prepositions.

Table 1. Syntactic locative prepositions in Zande

Preposition	Lexical source
<i>ku</i> ⁶ to, towards	–
<i>ti</i> at, on	–
<i>dagba</i> between	<i>dagba</i> (< <i>da</i> + <i>ngba-se</i>) space between two points (arrive + mouth, opening, end)
<i>ti</i> at	<i>ti-se</i> ⁷ body
<i>ri</i> on	<i>ri-se</i> head
<i>rogo</i> in, inside	<i>rogo-se</i> interior of human body
<i>ngba</i> in front of	<i>ngba-se</i> mouth, opening, end
<i>gi</i> behind	<i>gi-se</i> back
<i>bari</i> ⁸ over, above	<i>ba</i> + <i>ri-se</i> place + head
<i>vuru</i> ⁸ in(side)	<i>vu-se</i> , <i>vuru-se</i> ⁹ stomach
<i>pa(ti)</i> beside, around	<i>pati</i> circumference
<i>auru</i> on (top), above	<i>auru</i> top, upper part of s.th.
<i>tii</i> below, under	<i>ti</i> foot, leg
<i>sa</i> towards, against	<i>sa</i> ?reason (< tail)
<i>da</i> as far as	<i>da</i> arrive

With regard to the prepositions *ri* ‘top, head,’ *be*¹⁰ ‘hand, arm,’ *vuru* ‘inside,’ *gise*¹¹ ‘back’ and “a few similar ones” Gore (1926: 106) states that they are nouns which take “its [i.e., the preposition’s] place, the preposition being understood.” Tucker (1959: 123), however, quite decidedly claims that *ku* ‘to’, *ti* ‘at’, *sa*¹² ‘at, to’, *da* ‘as far as, to’ and *rogo* ‘in(side)’ “soient exclusivement prépositions.” His claim is confirmed by the fact that prepositions are not pluralised. The degree of nouniness of the prepositions remains to be investigated, but it is not of relevance for the present study.

⁵ The term “syntactic preposition” is used in agreement with Lillehaugen and Munro (2006: 10), referring to the function of the item apparently mismatching its word category.

⁶ In the texts published by Evans-Pritchard (1931, 1956) and in some of the examples in Tucker (1959), *ku* occurs with verbal prefixes.

⁷ The suffix *-se*, whose etymology is not quite clear, is found in the citation forms of many body part terms. In possessive constructions, it is replaced by the possessor; see *bangiri-se* ‘eye’ and *bangiri-ko* ‘his eye.’

⁸ This form looks like a lexicalised possessive construction *vu-ru* (stomach-AN/LOG) ‘its/his/her stomach’.

⁹ The form *vuru-se* is given by Tucker (1959: 270).

¹⁰ The preposition *be* is not used in locative constructions but in possessive constructions. Therefore, it is not considered in this paper.

¹¹ This form is erroneous. It should be *gi*.

¹² This preposition is not considered in this article.

It is likely that the prepositions with a nominal source give information about the nature and dimension of the Ground (Kuteva 1999: 198). For most of them this is definitely the case (5), (6). In non-contiguous relations (18), (19), (39), however, the prepositions have lost their component noun semantics and describe only the spatial relation between Figure and Ground. The same applies to non-locative usages of prepositions (1), e.g. the preposition *ti*, which has also been grammaticalised into a reflexive marker *ti*.

- (1) *Azande kpi, i sa ti-yo rogo nya.*
 A. die 3PL change RFLX-3PL in animal
 '[When] the Azande die, they turn into animals'.
 (Lagae and Vanden Plas 1925: 136).

3 Static location

The basic locative construction (BLC) which answers where-questions of the type *dari mo wari?* (frog 2s where) 'Frog, where are you?' has the simplest and shortest construction: a noun referring to the Figure, a preposition and a noun referring to the Ground are simply juxtaposed. The preposition encodes the topological constellation between Figure and Ground. More often than not, a deictic locative adverb follows the Ground, most frequently, the unspecific or distal adverb *yo* 'there' (7), and the proximate *no* 'here' (6) (Gore 1928: 95).¹³ It gives information about the distance between the speaker and the respective item.

- (2) *Manga rogo kurungbu.*
 mango in bowl
 'The mango is inside the bowl.'
- (3) *Kurungba bangiri ime.*
 boat eye water
 'The boat is on the surface of the water.'
- (4) *Kubaya ri tarabeza (auru siani).*
 cup on table on.top plate
 'The cup is on the table (on a saucer/plate).'

A small number of nouns referring to the Ground need not be introduced by a preposition if the Figure is in a stereotypical position. This applies in particular, though not exclusively, to nouns denoting locations like *sende* 'ground, earth,' *kporo* 'house, home' and *dimo* 'house, room' when used in the stereotypical way. The topological constellation can be inferred as a default according to the principles of generalised conversational implicature (cf. Levinson 2000).

¹³ Boyd (1998: 38) calls these adverbs "démonstratifs locatifs" and includes a third one, *ho*, 'the respective one.'

- (5) *Kumba dimo yo.*
man house DIST
'The man is inside.' (Boyd 1998: 42)
- (6) *A-boro sende no.*
PL-person ground PROX
'The people are here on the ground.' (Boyd 1998: 42)
- (7) [...] *ani ki-sungu na-ko kpu-re¹⁴ yo.*
1p CONS-sit with-him home-1SG DIST
'[...] and I will stay with him at my place' (Boyd 1995: 102)
- (8) *Ngbanga dekurugbo kina ngba-ni.*
judgment widow exactly mouth-COMM
'The widow's decision is in her own mouth.' (Gero 1968: 67)
- (9) *Dari ki-ya u gu du gizaza yo.*
frog CONS-say LOG immobile be bottle DIST
'And the frog said that it was inside the bottle.'

Occasionally, the BLC is expanded by the existential verb *du* 'be, exist,' which is partially defective.¹⁵

- (10) *Gbogbo du ti vuro bambu.*
shelf be at wall house
'The shelf is on the wall [of the house].'
- (11) *Gi bambu re du bebere ati yo.*
DEM house DEM be middle garden DIST
'That house is in the middle of the garden.'

More often than in simple clauses such as (10) and (11) *du* is found in complex sentences in which the other clause contains a verb (9), a zero-copula or the identifying copula *nga* (12).

- (12) *A-kopo ue nga ga tia i du ri mbisa*
PL-cup two COP POSS tea be on table
'Two cups of tea are on the table.'

In case the specific posture of the Figure is significant it is expressed by positional verbs, of which *sungu* 'sit,'¹⁶ *pi* 'lie' and *ru* 'stand' are the most frequent ones. There are, however, many other and more specific positional verbs in Zande.

¹⁴ *Kporo* 'home' behaves irregular in possessive constructions in that the stem is contracted to one syllable and the vowel is raised.

¹⁵ Gore (1926: 73f) characterises *du* as "a conjugated non-copula;" he observes, however, that it may also be used as a copula. Boyd classifies it as a verb which is defective or irregular only in the perfective aspect. He claims that perfective forms of *du* do not occur in independent clauses. See Boyd (1998: 38-50) for a detailed analysis of the different functions of *du*.

¹⁶ Note that *sungu* 'sit' is also used to describe constellations where animate Figures are in a canonical position but do not carry out any activity.

- (13) *Pipi gizaza sungu ri mbisa na ngba-ha kuari.*
 stopper bottle sit on table with mouth-INAN top
 ‘The crown cap sits with its “mouth on top” on the table (i.e. it lies with the metal side downwards).’
- (14) *Pipi gizaza vagadi ri mbisa.*
 stopper bottle lie.on.stomach on table
 ‘The crown cap lies with “its stomach below” on the table (i.e. it lies with the metal side upwards).’
- (15) *A-sira migidi ku ti vuro bambu.*
 PL-mat lean DIST at wall house
 ‘The mats are leaning against the wall.’

It is evident that general positional verbs (13) give less information on Manner of posture than specific ones (14). Specific information on the type of position or posture is given by adverbs or prepositional phrases.

4 Motion

In Zande, descriptions of motion events fall in two major categories. The first type of construction has a similar syntactic structure as the static constellations in examples (13) to (15), with the only difference that it contains a motion verb instead of positional verb. It is used to describe undirected motion events. The second type of construction is used to describe directed motion, and it is characterised by the directional preposition *ku* ‘to, towards.’ The Ground may follow directly or be introduced by an additional preposition specifying the resulting situation.

4.1 Nondirected motion

Motion which is not directed may be entirely undirected (17, 19), but it need not be so (cf. Schultze-Berndt 2006: 84). What imports is that it is not directed towards the deictic centre; hence it may be *in situ* or translational, i.e. either undirected or directed away from the deictic centre.

4.1.1 *In situ* motion

In an *in situ* or non-translational motion event the Figure occupies a position for a certain time. It may change its posture, but the position with regard to the Ground may be perceived as unaffected. The Figure stays where it is (16), so that the preposition describes the spatial situation before, during and after the motion event. This implies that Path is not a feature of the motion event.

- (16) *Gizaza ti ri tarabeza.*
 bottle fall on table
 ‘The bottle overturned on the table.’

The same holds also true for the literal meaning of the metaphoric expression *ba-ngua ti* (MAX-tree fall) ‘The mighty tree has fallen (i.e. the king has died)’ (Gero 1968: 72).

4.1.2 Translational motion

The same syntactic construction as used for *in situ* motion is also used for the description of translational motion, given that the Figure’s relation to the Ground remains unchanged throughout the motion event. In examples (17), (18), (19) and (20), Manner of motion is encoded in the verb and the relation between Figure and Ground during the motion event in the preposition. Note that in (17) two prepositions occur in sequence: the preposition *ti* indicates that the snake is somewhere on the surface of a dead tree stem, which is lying on the ground. The preposition *auru* indicates explicitly that the snake is on the highest part of that tree stem.

- (17) *Wo a-gbe ti-ru auru ti ugu ngua.*
 snake III-creep RFLX-AN on.top at dry tree
 ‘The snake crept on top of the dry tree [lying on the ground].’
- (18) *A-zire a-gu bari Uganda / ringara.*
 PL-bird III-fly above U. / country
 ‘The birds fly over Uganda.’
- (19) *Bakere bibiri mai a-ya¹⁷ bari gangara.*
 big black water III-float over mountain
 ‘Big clouds floated over the mountain.’
- (20) *A-de biama a-ndu pangba¹⁸ ime.*
 PL-woman four III-walk edge water
 ‘Four women walked along the river.’

The examples clearly indicate that Manner may be conflated in the verb. However, with regard to general motion verbs, information about Manner of motion is not always entirely lexically encoded, but it may be inferred from context or be expressed explicitly through adverbs or prepositional phrases. In example (20), for instance, the verb *ndu* ‘go, walk’ describes the walking of persons as having the features self-agentive, upright, in a normal way and at a normal pace. When accompanied by ideophones (cf. Lagae and Vanden Plas 1925: 116), one or more of the respective features are elaborated upon. In example (21), *ndu* lacks the Manner features given in example (20). It says nothing more than that the speaker moves over some distance. Manner is expressed by the prepositional phrase *na tiara* ‘by plane.’

- (21) *Mi na-ndu na tiara ku Kampala yo.*
 1s II-go with plane DIR K. DIST
 ‘I go by plane to Kampala.’

¹⁷ The verb *ya* expresses a movement without the use of legs or wings.

¹⁸ The basic meaning of *pangba* (*pa* ‘place’ + *ngba* ‘mouth’) is ‘cheek.’

The Manner conflating verbs in (17) to (21) describe horizontal motion. With regard to vertical motion, the lexicalization pattern is different. The verb *ti* ‘fall’, e.g., encodes Path DOWN but not Manner. This is illustrated quite clearly in example (22). The preposition *ti* ‘at, on’ is not directional, hence does not have the potential to indicate Path.

- (22) *Bakofo na Kungu na-ti ti a-boro.*
 smallpox and leprosy II-fall at PL-person
 ‘Smallpox and leprosy walk between [‘fall on’, HP] the people.’
 (Lagae and Vanden Plas 1925: 150)

For *dakpa* ‘climb up’ (23), the Path UP must be assumed to be encoded in the verb. Otherwise it is not clear on the basis of what the upward Direction of the motion could be inferred. The preposition describes the constellation between Figure (spider) and Ground (wall) obtaining throughout the event.

With regard to Manner, the two verbs behave differently: while *ti* does not conflate Manner, *dakpa* does. It describes a motion on relatively short legs, with the entire torso being close to the ground.

- (23) *Ture na-dakpa ti vuro bambo.*
 spider II-climb.up at wall house
 ‘The spider is climbing up the wall.’

The verbs *guari* ‘rise, go up’ and *kura* ‘appear, rise,’ which encode upward movement and hence lexicalise an upward Path, can be used to express motion away from the deictic centre; see example (24), (25) and (26). In that use they have the meaning ‘leave’.

- (24) *Oni guari pati ni¹⁹ ki-mbu ni.*
 2p rise beside COMM CONS-leave COMM
 ‘(You spirits) go away from [beside] him and leave him alone.’
 (Gero 1968: 17)

- (25) *Dari ki-kura gizaza yo ki-mere.*
 frog CONS-appear bottle DIST CONS-escape
 ‘The frog then left that bottle and then he ran away.’

- (26) *trombiri a-guari gba Wau no*
 lorry III-rise yesterday W. PROX

si a-da Tonzi yo gba
 INAN III-arrive T. DIST tomorrow
 ‘The lorry left Wau yesterday, and it will arrive in Tonzi tomorrow.’
 (Tucker 1959: 24)

In example (26), both the place of departure and that of arrival are referred to by their geographical names. The journey of the lorry is expected to take place in the usual way. Therefore, no preposition is needed to specify the constellation between Figure (lorry) and Ground (Wau and Tonzi).

¹⁹ The COMMON pronoun refers anaphorically to *gu boro re* (DEM person DEM) ‘this person’ in the preceding verse of the same prayer.

Apart from the Direction-marking preposition *ku* (cf. section 4.3.), prepositions do not indicate Path of motion. Furthermore, there are no verbs describing horizontal motion away from the deictic centre. Verbs of horizontal motion, as such the verb *ndu* (20) are rather unspecified for orientation.

It seems that Wilkins and Hill's (1995: 229) claim holds true with regard to Zande that motion away from the deictic centre may be regarded as a pragmatic inference of the verb but not a semantic entailment. Their claim is based on the hypotheses that in some languages the 'go' verb is not inherently deictic but that it may, nevertheless, imply motion away from the deictic centre because it is in opposition to an element that entails motion towards the deictic centre. In Zande, the preposition *ku* constitutes that latter element. Examples (27) and (28) describe situations in which the Figure moves away from the Ground as the deictic centre without morphological or syntactic marking of this "itive" orientation.

- (27) *Babiri a-oro rogo ga-u yaro*
 mouse III-run in POSS-AN hole
 'The mouse fled out of its hole.'

- (28) *A-mbegumga a-enge²⁰ ti vura Sue ku dio yo.*
 PL-Mb. III-start at side S. DIR west DIST
 'The Mbegumba originated on the banks of the Sue to the West.'
 (Evans-Pritchard 1931: 31)

The prepositions *rogo* 'in' (27) and *ti* 'at' (28) describe the topological situations at the beginning of the events, but not the Path of motion.

4.2 Directed motion

Translational motion of a Figure which is directed towards the Ground is marked by the preposition *ku* 'to, towards' (Gore 1926: 102). When the resulting spatial situation is stereotypical, e.g. 'in a container / house' rather than 'over / under / beside a container / house,' no further preposition is needed, as illustrated in the examples (29) to (33). Otherwise, a second preposition specifies the constellation given at the end of the event (32).

- (29) *Wo gbe ti-ru ku mangu yo.*
 snake creep RFLX-AN DIR bag DIST
 'The snake crept into the bag.'
- (30) *Wiri-ngua waraga tí ku sande.*
 child-tree paper fall DIR ground
 'The pencil fell onto the floor.'

²⁰ Lagae and Vanden Plas (1925) give 'advenir, arriver, survenir, se passer' as equivalents of *enga*. The given example refers to the Zande myth of the origin of the Mbegumba, according to which their forefathers arrived at the banks of the Sue, and their tribe came into being. The example expresses that it is this place from which they then started their migration.

- (31) *Wo a-simbidi ti-ru ku yaro motoro yo.*
 snake III-squeeze RFLX-AN DIR hole motorbike DIST
 ‘The snake squeezed itself into the exhaust of the motorbike.’
- (32) *Tio wagia ku rogo pere ime yo*
 fish swim DIR in pot water DIST
 ‘The fish swam into the pot [lying on the ground of the lake / river / sea].’
- (33) *A-boro biata a-rimi ku dimo yo.*
 PL-person three III-enter DIR house DIST
 ‘Three people entered [into] the house.’

Rimi ‘enter’ is the only Path conflating verb in Zande found in our investigation. The Direction of motion is again indicated by the preposition *ku*.

The constructions discussed in the preceding chapters can be arranged along a gamut Stasis ↔ Goal-oriented Motion as presented in Table 2. The degree of complexity increases from top to bottom. The basic locative construction used to describe canonical positions consists of a Figure noun, a locative preposition and a Ground noun, as shown in the first line of the table. If the specific posture of the Figure is considered relevant, it is described by a positional verb. Undirected motion requires a motion verb in a similar syntactic construction. Directed motion requires, in addition, the Direction marking preposition *ku*, which may precede a more specific locative preposition.

Table 2. Expressions of Location and Motion in Zande

Location	BLC	}	FIGURE	∅	PREP	GROUND
	expanded BLC		FIGURE	<i>du</i> ‘be, exist’	PREP	GROUND
	non BLC		FIGURE	positional verb	PREP	GROUND
Motion	undirected	}	FIGURE	motion verb	PREP	GROUND
	directed		FIGURE	motion verb	PREP	<i>ku</i> GROUND ‘toward’

Directed motion is the only category which has a clear morphosyntactic marking, the preposition *ku*.

4.3 The preposition *ku*

In the following chapters, the functions of the preposition *ku*, which go beyond marking Direction of motion events, will be outlined.

4.3.1 The preposition *ku* as marker of Direction or Goal

According to Tucker (1959: 123), *ku* marks a goal which is approached in a movement that covers some distance (34). This would confirm Gore's (1926: 102) argument that *ku* is related to translational motion.

(34) *ka*²¹ *ba-ha* *ku* *sende*
 INF throw-INAN DIR ground
 'to throw it [from above] down to the ground'

(35) *ka* *ba-ha* *sende*
 INF throw-INAN ground
 'to throw it to the ground'

We may, however, assume that *ku* in Tucker's example does not provide any information on the distance of a motion. Its presence in (34) rather indicates that the ground is the Goal to where an object is thrown as opposed to some other specific place, while its absence in (35) indicates that the object is thrown away instead of being properly kept. This interpretation is in agreement with that of example (22) where the absence of *ku* indicates that people are affected by leprosy and smallpox at random and not targeted so that some people may escape the diseases.

The Direction marker *ku* is also used in contexts where no real translational motion takes place but a type of motion which shares features of *in situ* and of translational motion.

While in example (16) the turnover of the bottle is perceived as an event concerning the bottle in its entirety, in examples (36) and (37), only the motion of the treetop is taken into account. Its motion is perceived as translational because it has changed its position in relation to the Ground. The relevance of the treetop as compared to the entire tree in this motion event results from the fact that its new position is detrimental to the Ground in (37) and to the Figure in (36) and (37). Note that in example (16) neither the bottle nor the table are affected by the overturn of the bottle.

(36) *ba-ngua* *gi* *bamboo* *yo* *ima* *ti* *ku* *sende*.
 MAX-tree behind house DIST already fall DIR ground
 'The tree behind the house has fallen down [towards the ground].'

(37) *ba-ngua* *ima* *ti* *ku* *ri* *bambu* *yo*.
 MAX-tree already fall DIR on house DIST
 The tree has fallen onto the house.

Example (38) is the description of a static situation: a dog is sitting motionless. The specific posture of the dog, namely a position in which the back is turned towards the house, is encoded as a movement subsequent to the dog's positioning itself beside the house.

²¹ According to Tucker (1959: 101) and Gore (1926: 52), one function of *ka* is to mark infinitives.

- (38) *Ango sungu pati ga-u bambu.*
 dog sit beside POSS-AN house
ki-sa gi-ru ku ti ni.
 CONS-change back-AN DIR at INAN
 The dog sits besides its house with his back turned to it
 [i.e. towards the house].

A momentary situation of a complex motion event may be described as a static situation by means of a positional verb or the verb *du* ‘be (at a place).’ This is the case in example (39), which outlines a situation during the historical persecution of the Mbegumba by the Abukuru. It proves Gore’s (1926: 102) claim wrong that *ku* “always implies motion.” There is no linguistic expression of motion, but motion is inferred from context only. The morpheme *ku* indicates that the Abukuru not only were behind the Mbegumba but that the latter constituted their military target, i.e. the Goal of their motion.

- (39) *A-bukuru ki-du ku gi-yo yo.*
 PL-Bukuru CONS-be DIR back-3p DIST
 The Abukuru were in [towards] their [the Mbegumba’s] rear.
 (Evans-Pritchard 1931: 31)

Compare the following motion event where the preposition *ku* is not used. Here two animals run one after the other. The second does not come closer to the first and it does not attempt to do so, hence the constellation between them does not change or the change is not considered important.

- (40) *badari ki-ya ni ba-mbata boro,*
 squirrel CONS-arrive COMM MAX-first person
ngba-fua-ko na-du nga ango
 mouth-after-him II-be COP dog
 ‘Then Squirrel arrived first, the one after him was Dog.’
 (Boyd 1998: 48)

4.3.2 The function of the morpheme *ku* in non-motion events

The preposition *ku* is not only used in its original function as a marker of Direction or Goal in motion events but also in contexts where the Figure does not move. In example (41) directedness is ascribed to perception. Note that here *ku* indicates the Direction of the speakers’ listening, not the origin of the news as the translation might indicate.

- (41) *Ani a-gi-he ku Berezi yo ya ko a-kpi yo.*
 1p IX-hear-INAN DIR Zaire DIST COMPL he IX-die DIST
 ‘We heard it from Zaire that he died there.’ (Boyd 1998: 38) (lit. We heard [listening towards the direction of] Zaire that he died there. HP)

4.3.3 The use of *ku* in angular static situations

Unlike all other locative prepositions which indicate topological location, *ku* indicates relative location of the Figure in angular static situations. In example (28), the Figure is located in an absolute frame of reference based on the cardinal direction “West”.

- (28) *A-mbegumba a-enge ti vura Sue ku dio yo.*
 PL-Mb. III-start at side S. DIR west DIST
 ‘The Mbegumba originated on the banks of the Sue to the West
 [of their present position].’ (Evans-Pritchard 1931: 31)

In examples (42) and (43), the position of the Figure with regard to the Ground is expressed in a relative frame of reference based on the bodily coordinates ‘left’ and ‘right’ of the viewer.

- (42) *Guru koti du ku kumba be gbanga koti yo.*
 short coat be DIR man hand long coat DIST
 ‘The short coat is to the right (lit. hand of man) side of the long coat.’

- (43) *Gu kura koti du ku gare yo.*
 DEM other coat be DIR left.side DIST
 ‘The other coat is on the left side.’

It is noteworthy that in all examples describing angular situations *ku* is not accompanied by a locative preposition. The use of *ku* as a Direction marker in these examples can be explained on the assumption that perception is directed towards a goal, as was already proposed in example (41).

In both frames of reference the Figure is viewed in relation to another object. In front of a map, the viewer in example (28) would direct his/her eyes from the present settlement area of the Mbegumba towards the place of their origin further west, the respective spot on the map determining the goal of the glance. Standing in the present settlement area of the Mbegumba, the viewer can see or imagine their origin further West, directing his/her glance towards that area in the West.

In examples (42) and (43), the observer’s glance departs from a given object into the Direction of the Figure as the Goal of vision in order to recognise the location of a specific coat.

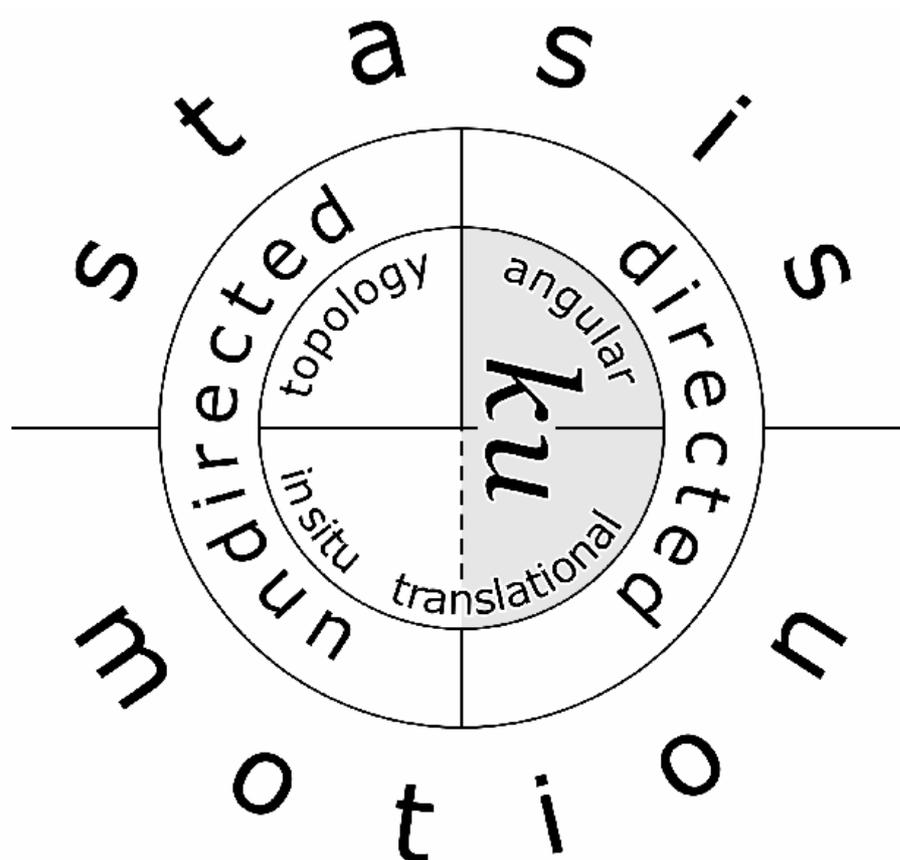
5 Conclusion

There is no overall answer to the question whether Zande is a verb framed or a satellite framed language. With regard to horizontal motion Zande at first vision looks satellite framed: the respective verbs conflate Manner or not but they do not conflate Path. The only exception is the verb *rimi* ‘to creep’. Verbs describing vertical motion, in contrast, do conflate Path, and they may in turn be used to indicate horizontal motion away from the deictic centre.

Directedness is the most salient feature in the grammar of space in Zande. It is clearly marked by the preposition *ku*, while the relation between Figure and Ground in location and all types of undirected motion is expressed only by prepositions. Direction marking is, however, not restricted to motion events but is also found in directed non-motion events and to indicate position in angular static locations.

Figure 3 depicts the presence and absence of *ku* and in static and in dynamic situations. It shows quite clearly the interrelatedness of motion events and static situations on the one hand and of directedness and non-directedness on the other.

Figure 3. Location and Motion in Zande and the occurrence of the Direction marker *ku*



Abbreviations

1s, 2s, 3s	1 st , 2 nd , 3 rd person of the singular
1p, 2p, 3p	1 st , 2 nd , 3 rd person of the plural
AN	animate (other than human, formerly called “animal”)
BLC	basic locative construction
COMM	common pronoun, i.e. unspecified for gender, formerly called “indefinite”
COMPL	complementiser
CONJ	conjunction
CONS	consecutive marker
COP	identificational copula
DEM	demonstrative
DIR	direction marker
DIST	distal deictic adverb
LOG	logophoric pronoun
INAN	inanimate (formerly “neuter”)
INF	infinitive marker
MAX	prefix marking magnitude
PL	plural
POSS	possessive marker
PREP	preposition
PROX	proximal deictic adverb
RFLX	reflexive

Tense/aspect categories according to Boyd (1995a)

II	-accompli, -défini, -passé
III	-accompli, +défini, - passé
IX	+accompli, +défini, +passé

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