Topological relations in Toposa
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Abstract
The grammar of space or spatial language does not only discuss the spatial domain of languages but can provide insights into human cognition. This paper is part of a research programme that is advanced by the Institute of Nijmegen\(^1\) using a picture series that consist of 72 pictures, designed by Bowerman and Peterson (1992).\(^2\)

Leaning on the work of Levinson (2003) and Levinson & Wilkins (2006) the topological relations in Toposa will be analysed from a basic locative construction perspective that answers the question ‘Where is X?’ This basic construction conceptualises the relationship between a landmark (ground) and trajector (figure) (adapted and applied from Levinson & Wilkins 2006: 15) and a construction that captures most English on/in relationships.

Toposa has a one preposition and some relational nouns for expressing space. There are the polysemous preposition \(ka-\) ‘of/from/with,’ and the relational nouns \(kidiamà–kidiamì\) ‘heaven’ used for ‘above,’ ‘up’ and ‘on top of,’ \(kopp\) ‘earth, bottom’ construed as ‘under’ and ‘down’ and \(tooma\) ‘in, inside.’ With this inventory of spatial categories Toposa can encode various spatial relations. The location marker \(lo–na\) also plays a significant role in the construction of topological relations.

The paper will show that a correlation between grammatical constructions and the semantic conceptual structure of +/-contact, partial and whole containment, adhesion and attachment between the landmark and the trajector exist in Toposa topological relations.

1 Introduction
Toposa an Eastern Nilotic language of the Teso-Turkana branch has the polysemous preposition \(ka–\) ‘of, from, with.’ In addition Toposa utilises relational nouns like \(kidiamà\) ‘heaven’ used for ‘above’ and ‘up’ and \(kopp\) ‘earth/bottom’ construed as ‘under’ and ‘down’ and \(tooma\) ‘in, inside.’ With this limited inventory of spatial categories Toposa can encode various spatial relations. The construction of topological relations employs an additional locational case marker \(lo–na\).

\(^1\)Nijmegen: Max Planck Institute for Psycholinguistics, http://fieldmanuals.mpi.nl/volumes/1992/bowped/
\(^2\)The research was carried with James Lokuuda, a pastor of the ‘Salt and Light’ church in Kapoeta, South Sudan between March and July 2014.
The explanations for the topological relations will rely on the functional frame also called basic locative construction (BLC) that answers the question ‘Where is X.’ This basic construction describes the relationship between a landmark (ground) and trajector (figure) (adapted and applied from Levinson & Wilkins 2006: 15). The topological relations are encoded through a picture series from Bowerman & Pederson (1992) that consist of 72 pictures investigating the maximal range of scenes encoding prototypical on/in relationships in English.

The paper will argue for a correlation between grammatical constructions and semantic conceptual construction of +/-contact, total and partial containment, adhesion and attachment expressing topological relations.

The paper is structured as follows; the second section will introduce the basic theoretical concepts, section three to seven explains the constructions that express special relationships between the landmark and the trajector: contact (section 3), adhesion (section 4), attachment (section 5), complex relationships (section 6), containment (session 7) followed by a discussion (section 8) and a conclusion (section 9).

2 Theoretical orientation
The following spatial domain division serves as basis for this research paper found in (Levinson & Wilkins 2006: 3):

![Diagram of Language of Space]

This paper will focus on the topological subdomain in Toposa as part of the language of space research. Important primitives in the spatial domain that are frequently used and utilised in this paper are the concepts of figure and ground (adapted from Gestalt psychology) that encode the
primary and secondary object relationship in linguistic schematization. Talmy (2000: 9) describes figure as the moving entity whose site, orientation or path provides the variable value in the reference frame. Ground on the other hand provides the reference entity to the figure’s site, orientation or path. This paper however prefers the distinction between landmark (LM), (Talmy’s ground), and trajector (TR), (Talmy’s figure), found in Langacker (1987: 217). The spatial relation between figure and ground represents the core concept in topology and can be described in different language in specific ways and can be encoded in the basic locative construction or other constructions (see also Zlatev 2010: 7-12). In the past spatial semantics claimed that the spatial relations would be captures in a set of contrastive appositions (Levinson & Wilkins 2006:5) However research like the one from Levinson & Wilkins has shown that languages employ distinct grammatical and lexical systems for describing topological relations. Besides some languages have a limited number or no spatial adpositions. Toposa is one of them; it only has one spatial preposition. As Toposa only employs one preposition and three spatial relational nouns, an interesting conceptual gap is created that opens up the question what grammatical and lexical systems Toposa employs to describe the topological domain. This paper will demonstrate that a correlation between grammatical constructions and underlying conceptual semantic structures exists and it organises its sub headings according to the semantic conceptual structures and how they are expressed in certain grammatical structures.

3 Contact between the LM and the TR
The contact between the landmark and the trajector is either expressed through the morpho-syntactic basic BLC construction which employs an equative, stative verb in conjunction with the case marking morpheme lo-na or positional verbs replacing the BLC but keeping the case marking morpheme lo-na.

3.1 Expressing contact through the basic BLC
The surface to surface contact in Toposa is expressed through the basic BLC construction which in Toposa is construed with a stative, equative verb eyaye ‘somebody has’ and the case marking morpheme lo-na. The locative case marking lo-na expresses the contact between the LM and the TR. The construction is equivalent to the typical English ON-relationship. Note that the locative case marker lo-na is gender sensitive: lo- occurs with masculine nouns that have the prefix ne- like in ne-kile ‘man’ and with diminutive nouns which have the gender prefix ni- like in ni-koku and na- is used with feminine nouns that employ the feminine prefix na- as in na-beru ‘woman’, see the following examples:
(1) E-yay-i  nga-buky  na-cełpu.  
3P-has-IMP  F:SG-book  F:LOC-self  
_The book is on the shelf._

In this example the trajector ‘book’ is in full contact with the landmark ‘shelf’. The BLC construction consist of the inflected equative eyayi ‘somebody has’ verb with the pronominal e- ‘3P’ and the inflectional aspect suffix -i ‘imperfective,’ consider also other examples with the same basic construction:

(2) E-yay-i  nga-arwaka lo-kilen.  
3P-be-IMP  F:SG-fat  M:LOC-knife  
_The fat is on the knife._

(3) E-yay-i  epolq  na-tiyya.  
3P-be-IMP  apple  F:LOC-tray  
_The apple is on the tray._

In example (2) the ‘fat’, the trajector, is in full contact with the landmark ‘knife,’ and similarly in example (3) the trajector ‘apple’ is in full contact with the landmark ‘tray’, see one picture representing example (2) as representative of the surface to surface contact, which is picture no. 12 from the picture series.

The other morpho-syntactic way of conceptualising the contact between the trajector and landmark is with positional verbs that are used instead of the simple BLC. The use of the positional verbs will be discussed in the next section.

3.2 Expressing contact through positional verbs
Another way of expressing contact (in this way loose contact) between the LM and the TR is achieved through the usage of positional verbs. The set of positional verbs Toposa is using are: butwon- ‘place,’ dok- ‘place,’ swipw- ‘seat,’ nen- ‘hang’ and wa- ‘put.’ The positional verbs occur with the benefactive akim-okin that either expresses a purposeful action or an implicit beneficiary and the middle or the passive suffixes. Both passive and middle constructions express the result of an action and also an implicit agent, in the sense that somebody had to place or seat the trajector
onto the landmark. The place of contact between the landmark and the trajector is expressed through the locative case marking; see an example with the verb 'place':

(4) E-butwon-a ne-kabooboot lo-kimoyinj.
3P-place-MD M:SG-ring M:LOC-finger

The ring placed itself on the finger.

The encyclopedic meaning of 'place' requires an agent, so the morpho-syntactic suffix -a for middle voice occurs. The locative case marker lo- demonstrates the contact between the landmark, the finger, and the trajector the ring. The next example expresses the ON-relationship with another positional verb for place:

(5) I-dok-okin-o ne-kubaya lo-pyemy.
3P-place-BEN-MD M:SG-cup M:LOC-table

The cup placed [itself] on the table.

The construction is a construal3 of the semantic of the verb, the benefactive and the middle voice suffix -o4 and the locative marker expressing a purposeful-resultative action. The next example shows the positional verb for 'seat':

(6) E-sipw-okin-a ne-kubaya lo-pyemy.
3P-seat-BEN-MD M:SG-cup M:LOC-table

The cup seated [itself] on the table.

Again the construction works as a construal i.e. the morphosyntax of the benefactive the middle voice, the locative marker and the semantic of the verb describes a typical ON-relationship in English. The next example demonstrates the positional verb 'hang' with a passive construction:

(7) I-nen-ikin-it-oe na-sura ka na-beru na-riwo.
3P-hang-BEN-PER-PAS F:SGpicture of F:SG-woman F:LOC-wall

The picture is on the wall. [lit.: The picture is hung on the wall].

The next example is an example with the verb 'put' that can be used for the BLC construction:

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3 Construal is understood as the conceptualisation of meaning through the import of encyclopedic meaning and grammatical features Evans & Powel 2009: 399.
4 The middle voice suffixes are a-→ o, they are depended on +ATR→ ATR verb root quality.
(8) E-wa-akin-it-ae na-teleponj na-riwo.
3P-put-BEN-PER-PAS F:SG-telephone F:LOC-wall
*The telephone is on the wall. [lit.: The telephone is hung on the wall.]*

Again the construction is construed with the meaning of the verb, the benefactive, the perfective (result), the passive and the locative marker, meaning somebody did the hanging, see the following picture showing example (8) as a representative of the positional verbs. This picture is no. 25 from the picture series:

Note that the contact relationship between the landmark and the trajector occur as alternative construction either as simple BLC or with positional verbs:

(9a) E-yay-i ne-kubaya lo-pyemü.
3P-have-IMP M:SG-cup M:LOC-table
*A cup is on the table.*

(9b) I-dok-okin-o ne-kubaya lo-pyemü.
3P-place-BEN-MD M:SG-cup M:LOC-table
*The cup placed itself on the table.*

(9c) E-sipw-okin-a ne-kubaya lo-pyemü.
3P-seat-BEN-MD M:SG-cup M:LOC-table
*The cup seated itself on the table.*

Example (9a) demonstrates the basic construction of the equative, stative verb and the locative case marking prefix; (9b) and (9c) show the alternative constructions of positional verbs with two middle constructions with the verb dok ‘place’ and the verb sipw ‘seat.’ Note that all the middle constructions occur with the benefactive expressing either an implicit beneficiary or a purposeful-resultative action. Which of the three constructions are the preferred construction for the + contact relationship needs further investigation.
4 Expressing adhesion between the LM and the TR

Toposa has to specify the BLC, with specific manner verbs when expressing adhesion. The encyclopedic meaning of the different verbs expresses the way the adhesion was achieved. All of these constructions also require the passive and the perfective or middle and the generative derivations and for the place of contact the case marking morpheme is required, see as follows:

(10)  E-niat-akin-a  ḋa-stamp na-waragatå.
3P-stick-BEN-MD F:SG-stamp F:LOC-letter

_The stamp stuck itself on the letter._

The direct adhesion contact between the landmark (the stamp) and the trajector (letter) is established through the construal of the lexical meaning of the verb ‘to stick’ and the locative marker na. The encyclopedic entry of the verb ‘stick’ brings out how the adhesion took place. The construal of the meaning ‘stick’ and the middle voice expresses an implicit agent, somebody who stuck the stamp on the letter. The case marking na- specifies the adhesion contact between the trajector (stamp) and the landmark (letter), see another example:

(11)  I-jiį-ikin-it-ae  ḋu-musumarea na-riwo.
3P-screw-BEN-PER-PAS M:PL-nail F:LOC-wall

_The hooks are screwed into the wall._

The encyclopedic meaning on the verb ‘screw’ encodes how the adhesion took place, i.e. somebody screwed the nails on the wall. The place of contact between the landmark (wall) and the trajector (hooks) is expressed through the case marking morpheme na, see also the following example:

(12)  E-midic-ikin-it-ae  ḋa-bole na-karjii.
3P-pit-BEN-PER-PAS F:SG-cork F:LOC-bottle

_The cork is plugged on the bottle._

The construal of the encyclopedic entries of the verb ‘plug’ specifies how the adhesion happened; somebody plugged the cork on the bottle. The place of contact is indicated through the case marking morpheme na, see other examples:

(13)  I-gir-akin-it-ae  ḋa-letera na-woru ka ḡe-kaapaanj.

_The letters are written on the cloth of the young man._
(14) E-rubw-okin-it-o e ne-gilu lo-kiti.  
3P-pierce-BEN-PER-PAS M:SG-ring M:LOC-ear  
The ring is pierced on the ear.

3P-slip-BEN-MD F:SG-shoe F:LOC-shoe  
The shoe slipped itself on the foot.

The passive (13,14) or the middle constructions (15) used for the BLC together with the encyclopedic meanings of the verbs show how the adhesion took place in (13) somebody wrote the letters, in (14) somebody pierced the ring on the ear, in (15) somebody slipped the shoe on the foot. All construction have an implied agent and the place of the adhesion contact is expressed through the case marking morpheme na and lo respectively. As an example for adhesion, see the following picture for example 10, which is picture no.3 from the picture series:

5 Expressing attachment between the LM and the TR
The attachment between the landmark and the trajector is expressed either through manner verbs with incorporated path or direction or through verb framed motion verbs.

5.1 Manner verbs with incorporated path, place or direction
Toposa replaces the typical BLC verbs also with manner verbs that have the path or direction incorporated. All these verbs show the attachment between landmark and trajector:

(16) E-tor-okin-itj na-pese na-caatj na-kowu.  
The girl has tied the band around the head.

The manner verb tor ‘tie around’ has the ‘path’ incorporated. The locative case marker designates na the place where the contact between the landmark and the trajector takes place ‘the head’. The next example shows a manner verb that has the meaning of direction incorporated:

(17) E-gwan-akin-a na-doketj na-riwo.  
3P-lean:against-BEN-MD F:SG-ladder F:LOC-wall

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The ladder is leaning against/on the wall.

The construction is based on the encyclopedic meaning of the verb. The verb ‘lean’ has an inbuilt direction ‘against’; the case marking na indicates the place of the contact. The contact between landmark and trajector is partial (part-whole), see another example:

(18) I-lok-akin-a ŋa-wuno na-komị.  
3P-coil-BEN-MD F:SG-rope F:LOC-trunk  
The rope coiled itself around the tree trunk.

In example (18) the path ‘around’ is part of the semantics of the verb; the contact between landmark and trajector is created through the case marking morpheme na-.

(19) E-kwar-akin-a ŋa-paipį na-komị.  
3P-lay:over-BEN-MD F:SG-pipe F:LOC-stump  
The hosepipe layed itself over the stump.

The verb kwar has an inbuilt path ‘over,’ the contact between the landmark and the trajector is created through the case marking morpheme na-, see another example:

(20) E-ped-okin-o ŋa-warage lo-mutu.  
3P-pierce-BEN-MD F:PL-paper M:LOC-needle  
The papers pierced themselves through the needle. [The papers are pierced on the needle]

Example (20) shows a manner verb with an inbuilt path ‘through,’ the contact between the trajector and the landmark is expressed through the case marking prefix lo-.

Note that all these verbs show the different ways (manner) of ‘attachment’ tie (16), lean (17), coil (18), lay (19), pierce (20) through the encyclopedic meaning of the respective verbs, see the picture for example (16), representing picture no. 46 of the picture series:
5.2 Verb framed motion verbs

The attachment is also expressed through verb framed motion verbs. If a motion verb has the path or direction inbuilt it represents a verb frame type according to Talmy (2000: 221). The specification of the attachment is expressed through the encyclopedic meaning of the verb:

    3P-roll-BEN-MD F:SG-rope F:LOC-candle
    *The rope rolled [itself] around the candle.*

The attachment contact between the landmark (the candle) and the trajector (ribbon) is specified through the construal of the encyclopedic meaning of the verb epopor ‘to roll, to twist’ and the locative case marker na. This verb is a motion verb that has the path ‘around’ integrated into its lexical meaning, it is an example of a verb frame. The twisting needs somebody who twists, a subject, and an object that is twisted, which is expressed through the middle voice. The case marking na- expresses the place of contact between trajector and the landmark, see another example:

(22) E-do-to ɲa-kipi ka ɲa-kuru na-golyeṭe ka ɲa-kayi.
    *The rainwater fell on the door of the house.*

The motion verb ‘land’ has an inbuilt direction; it reflects a verb frame where the direction is incorporated. The place of contact is indicated by the locative case marking na-. The manner of attachment is expressed through the encyclopedic entries of the verb in (22) ‘fall’ and the direction is ‘on’, see the picture of example (21), representing picture no. 4 from the picture series:

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5 The difference between satellite and verb frame was suggested by Talmy (2000: 221) saying that macro-events [framing event] are mapped onto syntactic structure typological either through the verb or through the satellite. For a critical view of Talmy’s typology see Croft et al (2010).
6 Complex relationships between the LM and the TR
In Toposa the constructions conceptualising contact and attachment are complicated through constructions specifying the source for the attachment expressed through the preposition *ka* ‘from’. This kind of complex construction is also used when no contact between the landmark and the trajector is expressed. In this case the noun *gype* ‘side’ is inserted. All these constructions are construed with various morpho-syntactic means (perfective aspect marking and/or allative or ablative) and the case marking morpheme *lo-na*.

6.1. Specifying the source or direction in attachment
There are several constructions that need to indicate the source or direction in the attachment relationship. These constructions require either positional verbs, motion verbs or other verbs that indirect the manner of the attachment.

6.1.1 Specifying the source in attachment
When describing the attachment the source of the attachment has to be specified. These complex constructions occur with positional verbs, see the example with the positional verbs *nen* ‘hang’:

(23)  
\[ \text{E-nen-o ne-koot\j\ ka lo-musumarj} \Rightarrow \text{kalo musumarj} \]
3P-hang-ABL M:SG-coat from M:LOC-nail

*The coat is hanging on [from] the hook.*

Speakers of Toposa have to specify the source from where ‘the hanging’ takes place. The construction has the ablative *-o* which expresses the hanging ‘away’ or ‘down’ from the landmark. The place of the contact is still expressed through the locative marker *lo*, see another example were the source is indicated and the ablative (away) is used:

(24)  
\[ \text{I-nen-o-si \yj-worui ka na-wuno} \Rightarrow \text{kana wuno} \]
3P-hang-MD-PL M:PL-cloth from F:LOC-rope

*The clothes are hanging on [from] the rope.*

Toposa speakers have to indicate the direction from where the hanging takes place, see the picture for example (23), and picture no. 9 from the picture series:
6.1.2 Specifying direction in attachment

The specification of direction in attachment either occurs with motions verbs or with manner verbs.

6.1.2.1 Expressing direction with motion verbs

When expressing attachment with motion verbs, the landmark is implicitly expressed through the preposition *ka* ‘from’, see the following example:

    3P-go-IMP F:SG-boot of F:LOC-water
    *The boat is moving on the water.* [moving from a landmark]

See another example where a motion verb in a satellite frame is used and the direction from where the motion was started is indicated through the preposition *ka* and the ablative *or-* ‘away’:

(26) E-ped-or-o ne-ranata ka lo-epolq.
    3P-bore-ABL-MD M:SG-arrow from M:LOC-apple
    *The arrow forced it way through the apple.*

The preposition *ka* indicates that the action, the forcing through, started from the landmark ‘the apple,’ see another example:

(27) E-wa-to ni-borekeya ka na-riwo.
    3P-crawl-PL M:PL-things from F:LOC-wall
    *Things are crawling on the wall* [things are migrating from somewhere to on the wall]

The picture below represents example (25), no 11 from the picture series:

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6 The satellite in this verb is the ablative –*or*.
6.1.1.2 Specifying the direction in manner verbs

In several instances the ON-relationship as attachment is expressed through manners verb with or without the allative. Additionally the direction from where the action took place is specified through the preposition *ka* ‘from’ and in example (28) the allative *un* ‘towards’:

(28)  E-rup-un-it-o ṣna-ki k inadequate  lo-kitoe.

3P-grow-ALL-PER-PL F:PL-leaf from M:LOC-tree

*The leaves have sprouted from the tree.*

In example (28) the attachment relationship is expressed. In Toposa the direction from where the leaves have been growing has to be expressed; the source of the growing is the landmark, the ‘tree.’ See two more examples of the same idea:

(29)  I-peraper-a ṣna-perewa ka na-suwaṭa.

3P-flutter-MD F:SG-flag on/from F:LOC-pole

*The flag is fluttering on the [metal] pole.*

(30)  I-yoloyol-o ṣne-minikwoṭa ka na-wuno.

3P-dangle-MD M:SG-ornament from F:LOC-rope

*The ornament is dangling from the rope.*

Both the verb ‘flag’ and the verb ‘dangle’ need to specify from where (source, landmark) the action is carried out and so the preposition *ka* ‘from’ is used, see the picture of example (30), picture no. 57 from the picture series:

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7 In this example the perspective of the speaker is considered; the sprouting takes place towards the speaker, the observer.
6.2 Expressing no contact between the LM and the TR
If there is no contact between the landmark and the trajector a relational noun has to be inserted. The relational noun syep ‘side’ as a landmark is followed by a genitive construction. The landmark still receives the locative case marker, see the examples below:

(31)  E-rup-un-itj pe-kitoe ka lo-syepê ka eklesya.
3P-grow-ALL-PER M:SG-tree of M:LOC-side of church

*The tree has grown on the side of the church.*

Note, the verb ‘grow’ needs a specification about from where the growing took place, so the preposition ka occurs in front of the regional noun, see the next example:

(32)  I-booy-i ni-ŋokô lo-syepê ka na-kayi.

*The dog is sitting on/at the side of the house.*

The scene shows that the dog, the trajector, has no contact to the landmark, the house, so the regional noun is used to indicate this situation, see the picture for example (31), no 49 from the picture series:

![Image of dog and tree](image)

No contact between the landmark and the trajector is also expressed through the usage of the relational noun kidiama meaning ‘heaven, the realm of God, sky’, see the following example:

(33)  Duna daanj e-rwor-o pe-tau, a-riŋa a-yay-i kidyaama.
that all 3P-speak-MD M:SG-heart 1P-still 1P:P-be-IMP sky/up.

*My heart spoke all that [as] I was still up [in the air]*

Note that kidiama is used here as a noun, see the next example from the picture series no. 36 where kidiama is used as a preposition describing the non-contact between the landmark ‘mountain’ and the trajector ‘cloud’:
(34) E-rap-akin-a ne-dou kidyaama ne-moru.
3P-cover-BEN-MID M:SG-cloud above M:SG-mountain

The cloud hovers over the mountain.

The relational kidiama changes into kidiami when expressing the contact between landmark and trajector; it is used with the BLC equative, stative verb eyayei ‘somebody has’:

(35) E-yay-i ne-pensil kidyaami ne-pyeumu.
3P-has-IMP M:SG-pencil on.top.of M:SG-table

The pencil in on top of the table.

(36) E-yay-i na-paipj kidyaami na-komj.
3P-has-IMP F:SG-hose on.top.of F:SG-trunk

The hosepipe is on the stamp.

The landmark ‘table’ and ‘stamp’ are in close contact with the trajectors ‘hose’ and ‘pencil,’ see the picture for example (36), no 23 of the picture series:

7 The containment relationship between LM and TR
The semantic containment relationship is expressed through the relational nouns tooma ‘inside,’ kopo ‘earth, country’ used for ‘under’ and down.’

7.1 Containment expressed through tooma
The word tooma ‘inside’ is originally a noun, see the following construction:

(37)... to-kyan-ar-j ni-kale ka lo-tooma na-karq.
Kid goat laughed from [the] inside [off] the well.

The noun tooma is also used as a preposition to express the containment relationship between the landmark and trajector. The following examples demonstrate the different constructions from the picture series.

There are basically two constructions that are used with tooma. It can appear with the simple BLC construction e-yayi ‘somebody has,’ when it describes the total containment of the trajector inside the landmark:

(38)   E-yay-i   epolę tooma  şu-kurya.
    3P-has-IMP   apple   inside F:SG-bowl
       An apple is inside the bowl.

(39)   E-yay-i  şu-sandukų tooma  şu-begeę.
    3P-has-IMP  F:SG-box   inside F:SG-bag
       A box is inside the bag.

In both examples the landmark ‘the bag’ (39) or ‘the bowl’ (39) are perceived as containers that encapsulate the trajector ‘apple’ and ‘box.’ Alternative constructions using benefactive and passive or perfective also occur, see the following examples:

(40)   E-dukw-okin-it-ae  şu-kayi  tooma  şu-laarą.
    3P-build-BEN-PER-PAS  F:SG-house   inside F:SG-fence
       The house is built inside fence.

(41)   E-dukw-itį  tulya  tooma  şu-toromj  ką şu-kitoe.
    3P-built-PER  owl   inside F:SG-trunk of M:SG-tree
       The owl has built inside the the trunk of the tree.

Note that the ‘owl’ (41) and the ‘house’ (40) are not completely submerged into the container ‘trunk’ or ‘fence’. The choice between the equative BLC (38-39) constructions and the constructions with benefactive and passive voice (40-41) in this case depends on the semantic meaning of the manner verb ‘build.’ The encyclopedic meaning of the verb ‘build’ requires an agent; somebody who built something for a purpose; see the picture of example (38), no. 2 of the picture series for a demonstration of the containment relationship:
7.2 Expressing partial containment

Partial containment is also expressed using the relational noun expressing ‘under.’ The word na-kopq has the meaning ‘floor, ground, country, land,’ see the following example:

(42) ... to-wat-ae na-kopq daanj,
     3P:SEQ-bless-PAS F:SG-country all
     ... the whole country was blessed. ...

Without the feminine marker the word kopq is used with the meaning ‘under, down,’ see the following examples from the picture series, where the BLC construction with the equative-stative eyayi verb is employed:

(43) E-yay-i na-juta kopq na-woru.
     3P-has-IMP F:SG-spoon under F:SG-cloth
     The spoon is under the cloth.
(44) E-yay-i ne-kurya kopq ne-kiciloŋ.
     3P-has-IMP M:SG-ball under M:SG-chair
     The ball is under the chair.

The relationship between the landmark and the trajector is that of partial containment between the trajector ‘spoon’ and the landmark ‘cloth’ (43) and between the trajector ‘ball’ and the landmark ‘chair’ in (44), see the picture of example (43), no. 24 of the picture series:

8 Discussion

Levinson and Wilkins (2006: 515-516) claim that a semantic correlation scale can be constructed cross-linguistically. This correlation scale should demonstrate under which criteria the BLC is more likely to be used over other alternative constructions. They observed that semantic concepts like
+/−contact, containment, adhesion, action evoking and +/−animate play an important role in the topological scale. In Toposa semantic concepts like +/−contact, adhesion, attachment, and containment play a role in the topological conceptualisation as demonstrated above.

In Toposa the simple BLC occurs very rarely and expresses only a [+ contact] relationship between the landmark and the trajector, shown in example (1-3) (35-36) and in the containment relationship (38-39) and (43-44). However more often the same the + contact relationship is expressed through positional verbs example (5-9). If adhesion is indicated manner verbs with middle or benefactive, perfective and passive are used (10-15). For the attachment relationship between the LM and TR manner verbs with benefactive and middle or passive voice often specifying the source or direction of the action are employed (example 16-30). The non-contact between the trajector and landmark emerges when relational nouns are used as prepositions replacing the locative case marker (31-34). Toposa does not fit well into the correlation scale suggested by Levinson and Wilkins, because the BLC is hardly used and most of the time even for simple positional verbs (5-9) middle-, passive-resultative constructions are preferred. What Mietzner (2009) found for Turkana that most of the On/In relationship are indicated through the simple BLC of Copula TR-LM had to be verified for Toposa, because Toposa uses only a few constructions with the basic BLC of Copula TR-LM. The real question that needs to be addressed for Toposa topology is why does Toposa employ so many resultative constructions instead of the simple BLC and how the use of the resultative constructions influences and construes the abstract conceptualisation of Toposa topology.

9 Conclusion

The topological relations in Toposa are expressed through the construal of different syntactic constructions and semantic relations specifying the relationship between the landmark (ground) and the trajector (figure). First of all the simple BLC expresses the relation of contact and containment. It is construed with the equative-stative verb e-yay-i ‘somebody has’. However positional verbs like ‘hang’, ‘put’, ‘seat,’ and ‘place’ are preferably employed for expressing the same contact concept. The BLC is not extended to adhesion or attachment relationships. In this case resultative verb constructions with either benefactive and middle voice, or benefactive, perfective and passive or motion verbs as satellite or verb frame are used. For Toposa topology a rather more interesting question emerges out of this research: not how the topological relations are constructed with the BLC but why the BLC hardly occurs and what other abstract conceptualization motivates Toposa topology.

Abbreviations

ABL ablative, ALL allative, BEN benefactive, DIM diminutive
References


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