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Article in *Lodz Papers in Pragmatics* · June 2013

DOI: 10.1515/lpp-2013-0003

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CLAUSE CHAINING IN TOPOSA: A PRAGMATIC APPROACH

Abstract

This paper explores the pragmatic routines that occur in clause chaining. It demonstrates that the tense-aspect dependency markers in Toposa texts not only combine chained clauses with an initial clause, but also guide the audience to understand information in texts as foregrounded. The understanding of which information is foregrounded is achieved through pragmatic routines that cut the comprehension process short because of frequently encountered inferential processes occurring in repeatedly accessed contextual environments. The pragmatic routines are explained as part of the relevance-theoretic comprehension heuristic. It will also be shown how these routines apply to narratives, and procedural texts.

Keywords

clause chaining, procedural-conceptual meaning, pragmatic routines, foreground/background information, Toposa

1. Introduction

This paper investigates clause chaining in Toposa, and the pragmatic processes triggered by it,¹ using the framework of Relevance Theory as propounded by Sperber and Wilson (1995) and Wilson and Sperber (2004).

Clause chaining is a grammatical device that involves the combination of a number of non-finite clauses that have operator dependence and typically occur in connected discourse (Schröder 2011:1, Dooley 2010: 2). Discourse in this paper will be understood in its functional notion as the production of spoken and written language in context (e.g. Brown and Yule 1983: 24, Blass 1990: 10, Unger 2006: 14, Schiffrin 1994: 41).

Clause chaining occurs mostly in SOV languages, but has also been reported in a few instances for SVO languages (Longacre 1990: 88-90 for Anuak, Hopper

1979: 213-215 for Kiswahili), and most recently by Schröder 2011 for Toposa, an Eastern Nilotic VSO language.

The indicators of clause chaining in Toposa are the prefixes *to-* and *ki-*, which mark the tense, aspect and mood dependency of all verbs in the chained clauses, and in this way function syntactically as operators. The choice between these two prefixes depends on the verb class.² So far the *to-/ki-* prefixes had been analysed as sequential markers that indicate foregrounded information in discourse (Schröder 2004, 2008, 2012).

This paper will demonstrate that clause chaining in Toposa has two procedural functions. On the one hand, it encodes the tense-aspect dependency of non-finite clauses on an initial clause, on the other hand, it signals foregrounding in discourse. In relevance-theoretical terms, the *to-/ki-* marking of clause chaining guides the inferential process in its search for a relevant interpretation of the stimulus and thus contributes to procedural aspects of comprehension rather than to conceptual ones – which typically feed into the representational side of the inferential process (Wilson 2011: 5).³

Semantically, clause chaining triggers a procedure that guides the hearer to understand that the tense and aspect of the chained clauses are to be understood in the same way as the tense/aspect of the initial clause. Clause chaining furthermore contributes to the search for relevance and provides cognitive effects that are related to foregrounded information in texts. This tense-aspectual dependency thus helps to explain the foreground-background distinction often associated with tense-aspect-mood (TAM) indicators. The relationship between the TAM indicators and foreground information will be explained pragmatically as *pragmatic routines*. As will be shown, procedural markers are used in different types of Toposa texts, i.e. in narratives, texts that describe procedures, and explanatory texts.

This paper will first examine the linguistic devices of clause chaining in Toposa (section 2), then introduce the theoretical framework used in the analysis (section 3), specifically the relevance-theoretical comprehension heuristic and the notions of conceptual and procedural meaning. Section 4 investigates aspects of foregrounding in Toposa texts; section 5 discusses pragmatic routines as part of the comprehension process.

2. Morpho-syntactic properties of clause chaining

Clause chaining has been defined in different ways. Most scholars agree that clause chaining is characterised by non-finite clauses that show operator dependencies (Dooley 2010: 3; Payne 1997: 312; Longacre 1990: 11; Mayhill and Hibiya 1988: 363).⁴ Besides this salient understanding of clause chaining, some

scholars point to specific features that characterize clause chaining, which we shall discuss in detail below.

Operator dependency is a term borrowed from Role and Reference Grammar (Van Valin and LaPolla 1997: 455) and describes the dependency of the chained clause(s) in terms of TAM inflection.

In the following section we shall deal with the morpho-syntactic properties of clause chaining, i.e. the operator dependency of tense/aspect, and the orientation of the chain.

2.1. Morphological marking, tense operator and post-nuclear orientation

In Toposa, a typical clause chain starts with a finite clause that is inflected for tense and aspect, and the subsequent chained clauses carry the dependency markers *to-/ki-* which signal the tense-aspect dependency on the finite verb or a temporal adverbial in the initial clause, as in the following example:

- (1) Bee kolon_o nuwan, to-lot-o Nye-bu
it.is.said long.ago very DEP-go-PL M/SG-hyena
ka Kwee nya-ki-rap ŋa-des_i moogwa,
and jackal INF-DER-search F/PL-some food
to-ryam-u-t_u nya-ate ka nyi-toon_i.⁵
DEP-find-ALL-PL F/SG-cow of D/SG-person

It is said that long long ago, Hyena and Jackal went to search for some food, they found someone's cow.

The above sentence represents a typical beginning of an animal fable. The story is set with the formula *bee* 'it is said' and the following sentences are chained to the initial clause with the dependency marker *to-* in *toloto* 'went' and in *toryamut_u* 'find'. Neither verb has the typical inflection that marks person, tense, and aspect on finite verbs. Compare these verbs with fully inflected ones (taken from Schröder 2008):

- (2) a. É-múj-i nyá-kír_ŋ.
1SG-eat-IMP F/SG-meat/ACC
I am eating meat.
- b. Ì-múj-ì nyá-kír_ŋ.
3SG-eat-IMP F/SG-meat/ACC
He is eating meat.

- c. È-múj-í nyá-kírĩŋ.
 1SG-eat-IMP F/SG-meat/ACC
I was eating meat.
- d. È-mùj-í nyá-kírĩŋ.
 3SG-eat-IMP F/SG-meat/ACC
He was eating meat.

As these data show, the normal Toposa verb is marked for tense and aspect. The tense system is the typical past and non-past type found in many African languages. Tense in Toposa is marked by the tone pattern that extends over the entire verb and varies according to verb class, person, number, and tense. In addition to the tone pattern, a tense prefix *a-* occurs in the third-person singular and plural in the past tense, see example (2c) and (2d), where the suffix has become fused with the person agreement prefix *i-*, resulting in *e-*. Note how the tone pattern for first-person singular changes from HHL in (2a) to LHF in (2c) to mark the change from non-past to past. Similarly, the third-person changes from LHL in (2b) to LLH in (2d).

Additionally, Toposa has two aspects: imperfective and perfective. Imperfective aspect is indicated by the suffix *-i*, as shown in the above data.⁶ The perfective aspect is indicated by the suffix *-itĩ*:

- (3) É-múj-itĩ nyá-kírĩŋ.
 1SG-eat-PER F/SG-meat/ACC
*I have eaten meat.*⁷

As these comparisons show, the two verbs *toloto* ‘they went’ and *toryamutu* ‘they found’ of example (1) do not have the typical tense-aspect inflection of the finite Toposa verb, they represent a non-finite form. Note also that they do not employ the typical person agreement marking as shown in example (2a-d).

These finite forms are not normal infinitives, however. This can be seen from constructions like the following:

- (4) To-lot-o Nye-bu ka Kwee nya-ki-rap
 DEP-go-PL M/SG-hyena and jackal INF-DER-search
 ŋa-desĩ moogwa.
 F/PL-some food
Hyena and Jackal went to search for some food.

The verb *nyakirap* ‘to search’ represents the typical infinitive form which consists of the prefix *nya-* and the derivation prefix *ki-*.⁸

Example (1) also shows that the direction of the chain is post-nuclear, i.e. that the finite clause precedes the chained clause. The post-nuclear orientation of the

chained clauses is still a rare phenomenon (Dooley 2010: 6 and Payne 1997: 321), mainly because most cases discussed were found in SOV languages, whereas Toposa is a verb-initial language.

2.2. Previous syntactic-semantic analyses of clause chaining

Clause chaining has been discussed widely for different languages around the world. According to Payne (1997: 312), clause chaining has been documented for languages in the highlands of New Guinea (Elson 1964), Australia (Austin 1979), and the Americas (Longacre 1985). So far, not many cases of clause chaining have been reported for Africa. Hopper presents evidence of clause chaining in Kiswahili, a Bantu language (Hopper 1979: 213-215, cited in Dooley 2010: 13), and Longacre in Anuak, a Western Nilotic language (1990: 88-90 and 2007: 418).

We outlined above that for most authors clause chaining characterizes non-finite clauses which show operator dependency. Besides this common understanding of clause chaining, some scholars point to specific features that characterize it. Dooley describes clause chaining as long sentences which contain foregrounded information (2010: 3). Mayhill and Hibiya (1988: 388) also state that clause chaining shows foregrounded information and is normally found in long sentences. Additionally, they insist that clause chaining does not cover sentences that are headed by conjunctions.

Clause chaining has been approached from three different angles. The first one is morpho-syntactic function, the second is semantic relationships, while the third relates clause chaining to foregrounded and backgrounded information. In the realm of morpho-syntactic functions, authors stress the tense-aspect dependency of non-finite clauses on an initial clause (Shopen 1985; Lefebvre 1991; Stirling 1993; Van Valin and LaPolla 1997). In the semantic field, clause chaining is mostly described in its temporal, consequential relationship (Dixon and Aikenvald 2009, among others), or in a more detailed way, showing semantic relationships between clauses, such as simultaneity, anteriority, condition, purpose, or manner (Maslova 2001: 369-399). Thirdly, clause chaining is often discussed in its function in texts, where clause chains are claimed to represent foregrounded information in narratives (Haiman and Tompson 1988; Dooley 2010; Longacre 1996).

So far, the pragmatic function of clause chaining has not received wide attention. This paper therefore wants to investigate from a pragmatic point of view how the original function of temporal and aspectual dependency of chained clauses on their initial clause can also lead to recognizing foregrounded information. It is not enough to merely state that clause-chaining indicates foregrounded information, as Dooley 2010, Mayhill and Hibiya 1988, and Haiman and Tompson 1988 did. The question that has to be answered is how the originally procedural

effect of tense-aspect dependency can simultaneously lead to the comprehension of foregrounding. As this paper will show, Relevance Theory is capable of explaining adequately how the dependency markers *to-/ki-* can be understood as signaling foregrounded information in addition to marking dependency.

3. The relevance-theoretical comprehension procedure

Relevance Theory is a pragmatic-cognitive approach to communication (Sperber and Wilson 1995; Wilson and Sperber 2004). Its central claim is that human cognition is guided by an innate tendency to look for information that is most relevant, where relevance in its technical sense is understood as an efficiency measure: the more some information relates to an individual's existing representation of the world to yield positive cognitive effects (i.e. modifications of existing knowledge or beliefs by contradicting and eliminating wrong beliefs, strengthening existing ones, or by making it possible to infer new information from existing knowledge), the more relevant it is. The efficiency measure of relevance is based on the idea that the less processing effort needs to be invested, the more relevant it is. This is the essence of the cognitive principle of relevance.⁹

Verbal communication in general is seen as a form of ostensive communication, i.e. a behaviour whereby the communicator produces a stimulus (essentially a gesture, an utterance, or both) in an overtly intentional way. More specifically, the producer of an overt ostensive stimulus has two intentions: (a) the intention to inform the addressee of some thought(s) – his/her 'informative intention' in Sperber and Wilson's terms (2004: 610), and (b) the intention to make this informative intention manifest to the addressee. According to Sperber and Wilson, such ostensive stimuli raise the expectation that they are optimally relevant, where optimal relevance amounts to at least being relevant enough to be worth the audience's attention, and at the same time most relevant, given the communicator's abilities and preferences. This is, in Wilson and Sperber's terminology, the *communicative principle of relevance* (2004: 612).¹⁰ In other words, ostensive stimuli automatically raise the claim that they are optimally relevant, and comprehension can be seen as the attempt by the audience to accept this claim. The most straightforward way of doing so is to follow the relevance-theoretic comprehension heuristic, i.e. the search for a relevant understanding of the ostensive stimuli determines the relevance-theoretic comprehension procedure (Wilson and Sperber 2004: 613):

1. Follow a path of least effort in computing cognitive effects: Test interpretive hypotheses (disambiguation, reference resolutions, implicatures, etc.) in order of accessibility...
2. Stop when your expectations of relevance are satisfied.

The comprehension procedure is a complex online process of inferential activities that involve going back and forth, testing and adjusting interpretive hypotheses regarding explicit content, implicit information, and contextual assumptions, guided by the search for relevance and the cost-benefit principle of processing effort. When the hearer feels that his expectation of relevance is achieved, the inferential processing stops.

Another aspect of understanding meaning from a relevance-theoretical perspective is the distinction between procedural and conceptual meaning. Expressions that carry conceptual meaning encode conceptual content. Expressions indicating procedural meaning trigger heuristic processes and constrain the inferential phase of comprehension. The distinction between conceptual and procedural meaning has been widely discussed (Blakemore 1987; Iten 2005; Hall 2007; Unger 2011; Wilson 2011).

4. Foregrounded information

It has been extensively reported that TAM marking in narratives is related to the distinction between foreground and background information. Under functional linguistic approaches, foregrounded events typically represent the event line of a story and are chronologically ordered. Representatives of this position are Hopper (1979/1998), Reinhart (1984), Fleischmann (1985, 1990), and Longacre (1990).¹¹ In line with this position, a typical understanding of foregrounded information is that it can be regarded as thematic information that develops and progresses the plot (or the arguments of a text), i.e. it represents the backbone of a text, and that carries the discourse forward and is of primary importance (Callow 1974: 52-53; Levinsohn 2010: 66). Background information on the other hand supports, explains and clarifies the thematic information and is of secondary importance, as described in Grimes (1975) and Levinsohn (2010: 69-71), among others.

Next, we want to discuss how the tense-aspect marking strategy discussed in section 3 and the marking of foreground/background information connect. In Toposa, the clause chain markers *to-/ki-* are procedural markers. They do not have any conceptual content. Rather, they indicate in all chained clauses their tense-aspect dependency. So the linguistic markers *to-/ki-* signal to the hearer that the chained clause has to be understood as having the same tense as the previous one, (which in narrative usually is some form of past). For a demonstration of how the *to-/ki-* markers work, we shall examine three types of texts: a narrative, and two types of procedural texts.¹²

First, let us consider the beginning of a narrative:

- (5) S1 *Bee* koloŋo nuwani, na eyakatara ŋituŋa
It.is.said time long.ago when there.were people
kidyaama, ta-tamu Nyakuju nyayeawuni ikesi kopo.
in.heaven thought God to.bring them down
S2 *Abu* Nyakuju, to-limoki nyikanyiti nitikawosoni nibe
came God, DEP-told bird very.clever who.called
Napurukucu, tem, "To-woyiu nyawuno, kotere
Napurukucu DEP-said IMP-twist rope in.order.to
ki-yooliyorotori ŋituŋa kopo."
IMP-take people down
S3 To-woyiu nai Napurukucu nyaputu natikaanikani,
DEP-twisted so Napurukucu tendon-string which.very.strong
to-woi loowoi.
DEP-long very
S4 Ki-yooliwunoe nai ŋituŋa, ki-bitibituni kopo,
DEP-were-let-down so people, DEP-let.themselves down,
ŋaberu ka ŋide tya ŋikecekilyoko.
women and children and husband-theirs
S5 To-doka ŋituŋa ŋurwa ŋiaarei, juutawar, kiiya kuwala.
DEP-climbed.down people days two dusk dawn

1 It is said [that] long ago, when there were people in heaven, God planned to bring them down [to earth]. 2 God came, he told a very clever bird whose name was called Napurukucu (= Orange Starling), he said, Twist a rope in order to take people down. 3 So Napurukucu twisted a strong tendon-string, it was very long. 4 The people were let down, they let themselves down, the women and children and their husbands. 5 The people climbed down [for] two days, [from] dusk <juu> [until] dawn <kiiya> (= day and night).

The first part of sentence (S1) *Bee koloŋo nuwani, na eyakatara ŋituŋa kidyaama* ‘It is said long ago, when people were in heaven’ sets the scene for the narrative, the main verb *bee* ‘it is said’ is a frozen form of the verb *bala* ‘to say’ which developed the meaning ‘it is said’. That the time frame for the events is set in the past is underlined through the adverbials *koloŋo nuwani* ‘long ago’. The clause represents the setting of the narrative and opens up the contextual information that all people were in heaven, and raises expectations of what is happening to these people. In the chained clause *tatamu Nyakuju* ‘God thought’ the hearer receives the instruction through the procedural marker *ta-* to select the same time frame as that of the initial clause which points to the distant past. In the expression *abu Nyakuju* ‘God came’ in (S2) the *a-* of *abu* ‘he came’ carries the past tense marker *a-*. This sentence serves as the initial clause of a long chain. All the other events following *abu*, i.e. those that carry the *to-/ki-* markers, are taking place in the past and the hearer selects the time frame *past* as instruction for these events, copying the past marker of the initial clause:

- | | | |
|-----|---|--|
| (6) | ta- tamu | <i>he thought</i> |
| | to- limoki nyikanyiti | <i>he told the bird</i> |
| | to- woyiu Napurukucu | <i>Napurukucu twisted</i> |
| | to- woi | <i>it (the rope) was long</i> |
| | ki- yooliwunoe n̄ituŋa | <i>the people were let down</i> |
| | ki- bitibitiun̄i kop̄o | <i>they (the people) let themselves down</i> |
| | to- doka n̄ituŋa n̄urwa n̄jaarei | <i>the people climbed down for two days</i> |

It is widely known that narratives are built on successions of events that take place in the past, so that hearers after processing events presented in sequential order as demonstrated in the above string of events in example (6) expect successive events will also be expressed in sequential order and understood to be in the past, as soon as the markers *to-/ki-* occur. As hearers work on a cost-benefit assumption and take a path of least effort, the indicators *to-/ki-* will lead the hearer to raise his/her expectations of relevance, i.e. that the so marked events contribute to the progression of the narrative. Thus the events marked in this automatically lead to the intended cognitive effects, i.e. to understand this information as foregrounded.

On the other hand, if the *to-/ki-* distinction is missing and a verb carries the normal tense-aspect markers as described in conjunction with examples (2a-d) and (3), the hearer infers that that information does not contribute to the sequential order of the events but clarifies, explains or supports the sequence of events and is more backgrounded. In this way the relative clause (S2) *nibe Napurukucu* ‘which is called Napurukucu’, where one of the main characters of the story is described and where the verb does not carry the *to-/ki-* marking, is backgrounded. The finite verb instructs the hearer to look for more contextual information in his search for relevance.

Next, let us consider two types of procedural texts. Like narrative texts, which are based on a progression of events, procedural texts also relate a progression of events, but the main difference between these two text types is that narratives tell “what someone did”, whereas procedural texts describe “how it is (normally) done”. Our first procedural text describes how a woman gives birth, and the activities and customs that surround it:

- | | | | | | | | | |
|-----|----|--------------|------------|----------|--------------------|-----------|-----------|----------|
| (7) | S1 | Egelagela | n̄italyo | ka | Ŋitoposa, | tarai | eya | n̄italyo |
| | | be.different | customs | of | Toposa | but | are-there | customs |
| | | n̄icye | lu | ikwaana. | | | | |
| | | others | which | be.same | | | | |
| | S2 | Na | idowuno | nyaberu, | to- tubw-oe | nyapusiti | | |
| | | When | give-birth | woman | DEP-cut.off-PAS | umbilical | | |
| | | ka | nyikoku | ka | nyebanyete. | | | |
| | | of | child | with | blade | | | |

- S3 **Ki**-lomakin-ae nai nyaberu kayi.
DEP-put.into-PAS then woman house
- S4 **To**-mudar-ae nyaṅasepe, kalo taleo ka ḡicye,
DEP-carry.out-PAS placenta, according customs of some
enukwakin-o nyaṅasepe nakutuku ka nyakayi
bury-PAS placenta at.entrance of house
kode ḡicye **to**-nukwakina nakeju ka nyenḡoomo
or others DEP-bury at.foot of ngoomo.shrub
- S5 **Ki**-booyi nyaberu kalo kayi tani ecakuni
DEP-stay woman inside house until fall.off
nyapusiti ka nyikoku.
umbilical of child

The customs of the Toposa are different, but there are some customs which are the same [for all clans]. 2 When a woman gives birth, the umbilical cord of the child is cut with a blade. 3 The woman is put into a house. 4 The placenta is carried outside, according to some customs the placenta is buried at the entrance of the house or at the foot of (= under) a ngoomo-shrub. 5 The woman stays in the house until the umbilical cord of the child falls off.

In this text the dependency markers signal the progression of processes, not of narrated events. However, in the same way as in narratives, the chains here also adopt the tense of the initial clause. The first sentence *Egelagela ḡitalyo ka Ditoposa, tarai eya ḡitalyo ḡicye lu ikwaana* ‘The customs of the Toposa are different, but there are some which are the same’ raises the expectation that more clauses will follow that describe what is commonly done among the Toposa when a woman gives birth. The beginning of the second clause *Na idowuno nyaberu* ‘when a woman gives birth’ opens up the scene of child birth so that the relevant processes surrounding it can be described, all of which are marked by the linguistic indicators for clause chaining:

- | | | |
|-----|------------------------------------|--|
| (8) | to -tubw-oe nyapusiti | <i>the umbilical cord is cut</i> |
| | ki -lomakin-ae nyaberu kayi | <i>the woman is put in house</i> |
| | to -mudar-ae nyaṅasepe | <i>the placenta is carried outside</i> |
| | ḡicye to -nukwakina | <i>others bury it under a ngoomo-shrub</i> |
| | nakeju ka nyenḡoomo | |
| | ki -booyi nyaberu kalo kayi | <i>the woman stays in the house</i> |

Note that both verbs in (S1) i.e. *egelagela* ‘they are different’, and *eya* ‘they are’, and the verb *idowuno* ‘she gives birth’ in (S2) are verbs that show the normal tense/aspect marking, as described in conjunction with data (2a-d) and (3) above. Since these verbs do not carry *to-/ki-* marking, they contain background information: they set the scene for a description of the processes of childbirth.

Inside the chain of salient processes of childbirth, a statement is made about the disposal of the placenta: *enukwakino nyajasepe nakutuku ka nyakayi* ‘the placenta is buried at the entrance of the house’, no foreground indicator appears in this comment. Although it seems very important information that should be foregrounded, this utterance does not carry any *to-/ki-* marker. There is a linguistic reason why this utterance does not carry the marker although it should be counted as foregrounded information: This utterance constitutes a metarepresentation because it is embedded in the utterance *kalo taleo ka njicye* ‘according to the customs of some’. In metarepresentations the linguistic conditions of clause chaining are broken, which explains why the verb does not carry the marker. However, the next clause resumes clause chaining, as is indicated by the verb in *njicye tonukwakina* ‘others bury it’. The utterance *enukwakino nyajasepe nakutuku ka nyakayi* ‘the placenta is buried at the entrance of the house’ directly satisfies expectations of relevance, although the clause has a tense-aspect indication in the verb *enukwakino* ‘it is buried’. This phenomenon where the encoding is used for other purposes has been called *redundant procedural marking* by Unger (2011: 108-112) and will be further investigated by Schröder (in preparation).

Our final example is a slightly different type of procedural text. Whereas our first procedural text used lots of passive constructions and in effect described “how it is being done”, this sub-type is more agent-oriented and uses a lot more active forms, in effect telling “how they [normally] do it”. Our example describes the ritual of initiation among the Toposa:

- (9) S1 *Seke na ecamitere nyakitasapana njituna, isyawunete mono*
 So when is.wanted to.initiate people, begin DM
njikanaka, ki-ryama, to-tukwo nyatemari itemokino
 leaders DEP-meet DEP-discuss that is.appropriate
njde lu eriña nyesapana, itasapanio.
 children who are.not.yet not.initiated be.initiated
- S2 *To-sewutu nai nyitoni ni edikino erawuni nyekani*
 DEP-select then person who will become leader
ka njikasapanaka.
 of initiates
- S3 *Kalo tale ka Toposa, esewunio nyitoni kalo kale*
 According custom of Toposa, is.selected person from home
kalo kajokonj ka njirotinj ka daanj.
 from good in ways in all
- S4 *Ku-wudakisi nai njituna lu ecamito nyasapana waapei,*
 DEP-gather then people who want initiation one.place
njikilyoko ka njde luucik, ta-nyama njikora kede nyemongo.
 men and children small DEP-eat rams or ox
- S5 *Nyarumworete nuna, to-loto nai to-pero naperiti.*
 end this, DEP-go then DEP-sleep in.sleeping.ground

- S6 Ani iwalari, ki-ryewutu haberu kece tya taityekece
When dawns, DEP-grind wives their and their.mothers
ka hide hatapae.
of children porridge
- S7 Na epapuuneta haberu naperiti, ku-waasi hikilyoko,
When approach women sleeping.ground DEP-sing men
ta-mawutu h ituja huuni kode hoohwong, to-kuse
DEP-praise people three or four DEP-blow.SIM
nyarupepe, nyepite holo ku-wanakisi haberu dan haatuku kece.
horn custom that DEP-praise women also cows their
- S8 Ku-waakisi nai haberu hamuja kopo.
DEP-put then women foods down
- S9 To-sewun-ae nai hituja lu ekorakinete nyakumuju
DEP-select-PAS then people who distribute food
hotuja.
to.people

1 When it is wanted (= when the leaders want) to initiate people, the generation-set leaders begin, they meet, they discuss that it is alright to initiate the children (= filial generation) who have not yet been initiated. 2 They select a person who will become generation-set leader of the initiates. 3 According to the sacred custom of initiation a person from a good family in every way is selected. 4 The people who want to be initiated gather in one place, the men and the children [of the new set], they eat goats or an ox. 5 [After] the end of that they then go to sleep in the [separate] sleeping-ground. 6 When it dawns, the wives and the mothers of the children grind [and bring] porridges. 7 When the women approach the sleeping-ground, the men sing [antiphonally], they praise three or four people [so they come out and perform a dance], while they are blowing a horn, according to custom the women also sing praises of their cows. 8 Then the women put the foods on the ground. 9 Then people are selected who distribute the food to the people.

This text describes the events that happen during the initiation of young men. Again, the chain adopts the present tense from the initial clause. The first part of the sentence *Seke na ecamitere nyakitasapana hituja, isyawunete mono hikanaka...* ‘When initiation of the people is wanted, then the generation-set leaders begin, ...’ activates contextual knowledge on initiation and opens up expectations that the initiation of young men is going to be explained. The following events describe the initiation and they are all marked with the foreground indicator:

The following events – all marked with the foreground indicator – describe the custom of initiation:

- | | | |
|------|--|--|
| (10) | <p><u>ki</u>-ryama
 <u>to</u>-tukwo
 <u>to</u>-sewutu nyitoo<u>ni</u>
 <u>ku</u>-wudakisi<u>ni</u> <u>ni</u>tun<u>ja</u>
 <u>ta</u>-nyama <u>ni</u>korae kode nyemo<u>ŋo</u>
 <u>ki</u>-ryewutu <u>na</u>beru <u>na</u>tapae
 <u>ku</u>-waasi <u>ni</u>kilyoko
 <u>ta</u>-mawutu <u>ni</u>tun<u>ja</u> <u>ni</u>uuni kode <u>ni</u>o<u>ŋ</u>wono
 <u>to</u>-kusetu nyarupepe
 <u>ku</u>-wanakisi <u>na</u>beru dan <u>na</u>atuku kece
 <u>ku</u>-waakisi <u>na</u>beru <u>na</u>muja kop<u>o</u>
 <u>to</u>-sewunae <u>ni</u>tun<u>ja</u></p> | <p><i>they (the leaders) meet</i>
 <i>they discuss</i>
 <i>they select a person</i>
 <i>the people gather</i>
 <i>they eat goats or an ox</i>
 <i>the wives bring porridge</i>
 <i>the men sing</i>
 <i>they praise three or four people</i>
 <i>while they are blowing a horn</i>
 <i>the women also praise their cows</i>
 <i>women put food on the ground</i>
 <i>people are selected</i></p> |
|------|--|--|

The above line of events achieves its cognitive effects by describing the steps of initiation in chronological order. Embedded in the line of events there are a few clauses showing background information: The sentence (S3) *Kalo tale ka Toposa, esewunio nyitooni kalo kale kalo kajokonni* ‘according to the sacred custom of the Toposa, a person from a good family is selected’ clarifies who one of the main actors in the initiation process is. This clause is lacking the *to-/ki-* marking. Pragmatically it is a metarepresentation. The information about the selection of the leader is embedded in a known formula of Toposa customs that is indicated here by the phrase ‘according to the sacred custom’. This clause contributes directly to foregrounded information, although no procedural *to-/ki-* is provided. This might be another case where the hearer processes foregrounded information without being instructed to do so by any linguistic cue. This phenomenon will be examined further in Schröder (in preparation). The following clauses in (S1) *lu erija nyesapano, itasapano* ‘[children] who are not yet initiated, are initiated, and in (S4) *lu ecamito nyesapano* ‘[people] who want initiation’ are all backgrounded and serve as clarifications about the actors in the initiation process. (S6) *Ani iwalari* ‘when it dawns’ sets the stage for the next phase of the initiation process, all these clauses (which exhibit normal tense aspect marking) are selected as background information by the hearer.

The above examples illustrate that there is a relation between tense-aspect and foregrounded information. This observation is confirmed by Unger (2006) for narrative texts. He states that there is a correlation between the expectation of listeners to understand events in narratives as their most relevant information and tense and aspect marking (p. 306) but that this relationship has rarely been reported for non-narrative types of text (Unger 2011: 110). However, the two texts in (7) and (9) above show that the Toposa markers are not confined to narratives, but are also found in procedural texts.

5. Further cognitive analysis

5.1. Pragmatic routines

The three examples of texts discussed above illustrate how the clause chaining markers *to-/ki-* contain *procedural instructions* that serve to indicate tense and aspect dependency in chained clauses, but also how they direct the audience to foregrounded information in texts because they satisfy the search for relevance by the hearer. In the following I would like to take a look at how the automatic processing of tense-aspect and foreground information could be explained better from a cognitive perspective.

Vega Moreno (2007) draws an interesting parallel between creative pragmatic inferences and standardization of pragmatic processes that develop into what she calls *pragmatic routines*. In her examination of metaphors and idioms she discusses the cognitive processes involved in understanding figures of speech. She observes that some processes are frequently activated, for example: A person that often comes across the idiom 'X is a lion' will at first activate all the encyclopedic entries of the concept LION like *a lion is a carnivore, it lives in the African bush, it is dangerous, it is fierce*. After having accessed this kind of encyclopedic information, based on the contextual implication that X is really a human being, the hearer concludes that X is dangerous and fierce. So in this case LION is set up as an ad hoc concept LION* with the encyclopedic information *dangerous and fierce*. However, when speakers are frequently confronted with a similar context which requires activation of the concept LION*, they will speed up the process of inferencing and rush through the activation of premises and hypotheses, choosing the concept LION* as *dangerous and fierce* right away. At this stage the activation of the ad hoc concept LION* has become fully conventionalized and is being used in its metaphorical sense immediately and automatically (Vega Moreno 2007: 118-119).¹³

I want to propose that in a similar fashion procedural instructions can develop into pragmatic routines, and I want to suggest this phenomenon with the *to-/ki-* dependency markers. I have already pointed out that there is a relationship between *to-/ki-* and the processing of foregrounded and backgrounded information. Suppose that the hearer first uses the encoding of *to-/ki-* as a procedural instruction to activate the comprehension of the tense-aspect dependency on the initial clause. By frequently hearing *to-/ki-* and frequently inferencing the same premises and hypotheses, the hearer moves from his first comprehension as dependency marker directly to the understanding that *to-/ki-* represents foregrounded information. Through this frequent access the whole process becomes more easily accessible and more and more automatic and so it develops into a pragmatic routine that directs hearers to access verbs indicated by *to-/ki-* as contributing to cognitive

effects as foregrounded. Those verbs that do not carry the marker trigger another path of inferences: they lead the hearer to information that supports the search for relevance and is categorized as background.

In summary, we can say that the frequent inference process of *to-/ki-* has developed into a pragmatic routine that directs the audience to access foregrounded information in texts automatically. Processing the dependency marker as tense/aspect dependency is a controlled, voluntary, slow process that developed through frequent access, frequent inferences of the same premises, hypotheses and contextual implications, into automatic processing of foregrounded information as a more unconscious, involuntary and effortless process (Vega Moreno 2007: 221).

5.2. Procedural instructions and text types

As shown above, the clause chaining markers occur in different text types. Irrespective of text type, the verbs that carry these markers take their tense from the initial clause, i.e. normally past tense in narratives, and typically present tense in texts that describe procedures or customs.

Where the marking differs, however, is that in narratives the sequential order of actual events¹⁴ is marked, whereas in procedural texts the normal or ideal sequence of events is marked. This process of comprehending the events in sequential order and at the same time understanding them as foregrounded information becomes a preferred pragmatic routine of the comprehension heuristic.

One question that has to be answered at this stage is how does the hearer comprehend the difference between the order of events in narrative and procedural texts? Suppose that *to-/ki-* enters the inferential process as sequential ordering, then in the narrative texts the hearer is guided to understand chronological sequencing through the implication of past tense.

In procedural texts the hearer infers the chronological ordering of events via the implication of present tense. The understanding is further fine-tuned by whether active or passive verb forms predominate, which subtype of procedural is intended, the –agent-oriented form, or the type that includes agents overtly.

<i>Narratives</i>	<i>Procedurals</i>	
+agent	-agent	+agent
+past	+present	+present

Table 1. Overview of inferential processes for *to-/ki-* in texts

In summary, we can say that in comprehending narratives and procedural texts, the audience is guided by *to-/ki-* towards picking out the unifying notion of

temporal sequencing of events. This process is fine-tuned by various linguistic markers. The indication of past tense in the initial clause of a chain leads the hearer to understand this is a narrative text, whereas present tense marking in the initial clause signals that the text is procedural in nature. In the latter genre, the comprehension process is further fine-tuned whether the sub-genre is more or less agent controlled via the presence of active versus passive verb forms.

6. Conclusion

This paper has demonstrated that in the interpretation of Toposa texts the clause chaining indicators *to-/ki-* induce two types of inferential pragmatic processes. First, the hearer is guided to pick up the tense-aspect dependence between an initial clause and subsequent chained clauses. At the same time, these indicators facilitate the recognition of foregrounding in texts. This effect is based on a pragmatic relationship: As tense-aspect indicators *to-/ki-* trigger the search for contextual information which satisfies expectations of relevance, and through this process events are perceived as foregrounded. I suggest that this automatic co-processing can be explained as a *pragmatic routine* that has developed after frequent processing of the same inferences, hypotheses and conclusions. In procedural texts, which are identified through implied present tenses in clause chains, the understanding of foregrounded information is further fine-tuned through the use of passive markers which indicate whether a procedural text belongs to the subtype that exhibits less agent-control or to the subtype with more agent-control.

Notes

¹ I am indebted to Christoph Unger for his helpful comments on an earlier draft of this article and to my husband Martin for his help with editing.

² Like other Eastern Nilotic languages, Toposa has two morphological verb classes. One class employs the prefix variants *to-* ~ *ta-* ~ *te-*, the other verb class is marked by prefixation of *ki-* ~ *ku-*. (The variants in each class are dependent on the quality of the following root vowel.) From here on these various dependency markers will be referred to as *to-/ki-* forms.

³ For more on the conceptual-procedural distinction see Blakemore 1987, Iten 2005, Hall 2007, and Unger 2011.

⁴ Haiman calls the chained clause ‘medial clause’, and Van Valin and LaPolla refer to it as ‘co-subordination’ (1997: 455).

⁵ Underlined vowels at the end of words indicate voiceless vowels.

- ⁶ The imperfect marker has an allomorph *-e* before the plural suffix *-te*, used in second- and third-person plural. First-person plural uses the suffix *-i* with the plural suffix *-o*.
- ⁷ Note that the personal pronoun is usually not overt in Toposa. Normally, the personal pronouns are integrated as arguments in the verb, as argued for in Schröder 2008 and 2012).
- ⁸ The derivation prefix occurs only when there is no verbal extension like allative, ablative, or benefactive.
- ⁹ The cognitive principle of relevance states: “Human cognition tends to be geared to the maximisation of relevance.” (Wilson and Sperber 2004: 610).
- ¹⁰ The communicative principle of relevance says: “Every ostensive stimulus conveys a presumption of its own optimal relevance.” (Wilson and Sperber 2004: 612).
- ¹¹ An extensive discussion of the different views on how the TAM distinction contributes to the foreground-background distinction is found in Unger 2002: 98–130, and Unger 2006: 3–5.
- ¹² Note that the term “procedural” here refers to a type of text as defined in Longacre (1996:10), not to the sense in which it is used in Relevance Theory (see section 3).
- ¹³ This is one way of explaining how live metaphors develop into dead metaphors.
- ¹⁴ This includes fictive narratives, because they *present* their events as if they really happened.

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