1. Introduction

1.1. Background and aims of this paper

Tense, aspect, and mood (TAM) systems in Bantu languages have been called “the most complex...in general” (Dahl, 1985:185). However, the tense/aspect (TA) contrasts privileged within a Bantu language are often inadequately explained within traditional frameworks of tense and aspect semantics. To address this problem, frameworks have been developed that take Bantu data into account (see e.g. Botne 1983, 2003, 2010; Botne & Kershner 2000, 2008; Kershner 2002; Seidel 2008, among others). These frameworks provide a more fitting and explanatory model for TAM systems in many Bantu languages, and are likely of value for the analysis of TAM in non-Bantu languages, as well.

This paper aims to show that tools from these frameworks, including notions of tense, aspect, and situation type, allow for a more satisfactory analysis of Totela tense and aspect. To that end, four Totela tense and aspect markers are briefly presented and analyzed. Specific distinctions discussed in this paper include the notion of nuclear completion vs. nuclear non-completion (§3), and association with or dissociation from the current discourse world (§4). Before discussing particular tense and aspect forms, situation type distinctions (here, durative vs. change-of-state) are examined (§2), because these are intimately related to – and likely determinative of – which distinctions a language privileges in its aspectual system.

These findings, along with similar findings for other Bantu languages, suggest that the frameworks employed here may be more effective analytical tools for the study of Bantu tense/aspect systems, and that they merit further development and dissemination.

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1 Many thanks to Cecilia Namasiku Namuyumba, Gertrude Sibeso, Violet Bumba, Christopher Mwendo, Albert Mwenda, Phineas Simwaga Sishau, Gift Mwakamwi Sishau, and Kelvin Sishau, and to other residents of Kwemba village, particularly to headman Sishau White Maketu, for their extremely generous contributions to all aspects of this research. Thanks also to the communities of Likemwa, Samisisi, and Malabwe in Zambia, and of Makusí and Kachansi in Namibia, and to consultants and research partners Michael Sililo, Veronika Kalimukwa, Clement Tubusenge, Tekulo Kachelo, Samitiba Agatha Nasamu, Kelly Mutale, and Namasaka Imuwana. Work in Zambia and Namibia was made possible through research affiliations with the University of Zambia and the University of Namibia. This material is based upon work supported in part by a National Science Foundation Graduate Research Fellowship. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the author and do not necessarily reflect the views of the National Science Foundation. Field research was also made possible by grants from the UC Berkeley Graduate Division and the Andrew and Mary Thompson Rocca Summer Pre-Dissertation Research Award in African Studies (UC Berkeley), and by the Harvey Fellows program. Thanks also go to Robert Botne, Larry Hyman, Lynn Nichols, Alan Timberlake, and Line Mikkelsen for their comments and ideas, as well as to the two anonymous reviewers, who provided a number of invaluable suggestions for the improvement of this paper.

2 For a longer and more detailed analysis of the markers discussed here, along with other facets of Totela’s tense/aspect system, see Crane (2011).

Glosses used: 1SG=first person singular; 2PL=second person plural; CL6=noun class 6; CMPL=completive, COND=conditional; COUNTER=counterfactual; DEM=demonstrative; DIST=distal marker; DM=discourse marker; FV=final vowel; INF=infinite; INTERJ=interjection; LOC=locative NONCMPL=noncompletive; PASS=passive; POSTHOD=posthodiernal future; PREHOD=prehodiernal past; PRON=pronoun; RC=relative clause; SIT=situative aspect; SM=subject marker; TEMP=temporal marker.
1.2. Totela

Totela is a Bantu language spoken in parts of Zambia’s Western Province and the Caprivi Strip in northern Namibia. It is listed as K.41 in the Guthrie (1967-1971) classification system, which is widely acknowledged to be useful referentially, but not a “linguistic-genetic” system Maho (2009:4). Although precise numbers are not available, there are likely fewer than five thousand Totela speakers in the Western Province of Zambia (Crane, 2011:56). The language is highly endangered, with very little intergenerational transmission. The primary language in most areas where Totela speakers are found is Lozi (Guthrie number K.21, but more closely related to the S Group of South Africa).

The Totela variety described in this paper is spoken in the Western Province in Zambia, along the Kweemba river.

2. Situation type

Situation type – also known as Aktionsart or lexical aspect – allows for the division of verbs into classes, based on their inherent internal temporal structure and grammatical behavior.

The traditional verb classes, including STATES, ACTIVITIES, ACCOMPLISHMENTS, and ACHIEVEMENTS, given in Vendler (1957), and augmented in Smith (1997) to also include SEMELFACTIVES, do not adequately predict the behavior of Totela verbs with various aspectual markers. This section introduces a CHANGE-OF-STATE vs. DURATIVE situation-type distinction as elaborated in Botne & Kershner (2000) and gives examples of both types in Totela. These two macro-categories will be important in section 3, which describes their interactions with grammatical aspect.

2.1. Durative and change-of-state situations in Totela and other Bantu languages

As noted above, a crucial distinction in Totela is the contrast between change-of-state verbs and durative verbs. These contrasting categories have long been noted in many Bantu languages (see e.g. Fortune, 1949; Botne, 1983; Botne & Kershner, 2000; Nurse, 2008). As described by Botne and Kershner, change-of-state (sometimes called “inchoative”) verbs express a “change of condition or state of the experience or patient”, including a “change or transition from one state to another” Botne & Kershner (2000:165). In contrast, durative, non-inchoative verbs do not necessarily have a result state. Some change-of-state verbs in Totela include -taba ‘be(come) happy’, which encodes entry into a state of happiness, -iziba ‘come to know’, -komokwa ‘get/be surprised’ (passive), and -ikuta ‘be(come) full’. All of these verbs encode not only the resultant state, but also the transition into that state. As is evident even from this short list, the nature of the preparatory (pre-transition) and result states may vary considerably, and finer categorizations of situation type are possible. For examples, see Botne (1983), Kershner (2002), and Seidel (2008). In this paper, only the higher-level distinction between durative and change-of-state

3Note that punctual, virtually instantaneous situations may also fall into the durative verb class, if they have no entailed result state. So may telic verbs, which have an inherently encoded end point but not necessarily a resulting state.

4For ease of writing and reading, a practical orthography is used in this study. When reliably known, all surface tones, both H and L, are marked. Differences from IPA are as follows:

<table>
<thead>
<tr>
<th>IPA Symbol</th>
<th>Practical Orthography</th>
</tr>
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<tbody>
<tr>
<td>b</td>
<td>bb</td>
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<tr>
<td>n</td>
<td>ny</td>
</tr>
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<td>ñ</td>
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<tr>
<td>šf</td>
<td>ch</td>
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<tr>
<td>dč</td>
<td>j</td>
</tr>
<tr>
<td>hču</td>
<td>hu</td>
</tr>
</tbody>
</table>

5For example, Botne (1983:178-179) lists “achievement” (e.g. -gi- ‘go’), “transitional” (e.g. -nànlè- ‘be(come) thin’), and “resultative” (e.g. -tūr- ‘live/reside’) inchoative (= change-of-state) verbs. It should also be noted
situations will be considered, as these categories are adequate for the purposes of the current discussion.

Following Botne & Kershner (2000) and others, a verb may construed as having the following phases: (optional) ONSET (O), NUCLEUS (N), and (optional) CODA (C). The nucleus describes the “characteristic” phase of a situation (see e.g. Botne, 1983; Freed, 1980). The onset and coda represent, respectively, preparatory and terminal/result phases, which may or may not be lexically entailed.

In durative verbs, the nucleus coincides with the action or state of the situation described, and terminates along with the termination of the situation. This can be schematized as in Figure 1, which follows Botne & Kershner (2000):

![Figure 1](samba_event_structure.png)

**Figure 1:** Event structure for *samba* ‘bathe’

In contrast to durative verbs, change-of-state verbs have an entailed result (coda) state following the nucleus, which represents the “point” of change into the result state. An example is given in Figure 2 for the verb *komokwa* ‘get surprised’.

![Figure 2](komokwa_event_structure.png)

**Figure 2:** Event structure for *komokwa* ‘get surprised’

As noted above, finer-grained categorizations are also possible. For example, some change-of-state verbs have clear onset phases, e.g. *bomba* ‘soak’, schematized in Figure 3.

![Figure 3](bomba_event_structure.png)

**Figure 3:** Event structure for *bomba* ‘soak’

The two macro-categories of situation type – i.e. change-of-state vs. durative – will be crucial in the next section’s analysis of completion semantics in Totela aspect.

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that Bantu languages may differ from one another in their categorizations of specific verbs, which can only be determined language-externally. The important observation, however, is that the existence of a general classification of change-of-state vs. durative situations is quite common.

*Footnote:* Figure 3 is intended as an illustration to assist readers in interpreting event-structure schemas throughout the article. However, with respect to the tense and aspect distinctions discussed in this paper, distinctions in the onset phase may be assumed not to affect the interpretations or analysis.
3. Aspect: the role of nuclear (non-)completion

Probably the most commonly discussed aspectual distinction is the one between perfective and imperfective aspects. In this section, I discuss two markers in Totela that, while having aspectual force – that is, they make reference to the “internal temporal constituency” of situations (see Comrie, 1976:3) – do not fit neatly into the perfective or imperfective categories as they are traditionally construed. I argue that they make reference to the location of perspective time (typically, though not always, equivalent to utterance time) with respect to the completion of a situation’s nucleus. These markers, completive -a- and non-completive -la-, are presented in sections 3.1 and 3.2, respectively.

3.1. -a- as a marker of nuclear completion

The use of an -a- morpheme in post-subject-marker position indicates that at perspective time, the nucleus of the situation referenced is complete, whether that situation belongs to the durative or change-of-state category.

For durative situations, then, perspective time (PT) is located after the contentful part of the situation itself, as illustrated in (1).7

(1) Atelic durative:
\[ nd\text{-}\text{neng}\text{-a} \]
1SG.CMPL-dance-FV
‘I danced’

With change-of-state verbs, in contrast, there is an entailed, semantically contentful coda phase following the situation’s nucleus. As with duratives, perspective time must be located after the nucleus; however, for change of state verbs, post-nuclear time includes both the time for which the coda state holds and subsequent times. Therefore, perspective time may either be within the result state, giving a present stative reading as in (2a), or after it, giving a past dynamic reading as in (2b). Both readings are attested, although the coda-state reading is more common.

(2) a. Present reading:
\[ ndg\text{-}\text{komokw}\text{-a} \]
1SG.CMPL-surprise-PASS-FV
‘I am surprised!’

7Throughout the article, markers currently under discussion will be underlined.
b. Past reading:
\[ nd\text{á}kom\text{-o}kw\text{á} \]
\[ 1\text{SG.CMPL-situation-PASS-FV} \]
‘I got surprised!’

Understanding this aspect as locating perspective time with respect to the situation nucleus, rather than some other part of its event structure, provides an account for the present stative/past event interpretations common in Bantu languages (see Nurse, 2008). Although the markers in question and analytical details differ, analyses given in Botne (1983) for Kinyarwanda (JD.61), Kershner (2002) for Chisukwa (M.202, Malawi), and Botne (2010) for Luwanga (JE.32, Kenya) and Lusaamia (JE.34, western Kenya and eastern Uganda) also reference nuclear completion, suggesting that the situation nucleus likely plays an important role in aspectual distinctions in numerous Bantu languages.\(^8\) Completion semantics also seem likely to be at play in other Bantu languages where “anterior” marking is associated with vagueness or ambiguity between past situations and present states (see Nurse 2008 for examples). The stability of the category, with varying means of morphological expression, suggests that the notion of nuclear completion is basic to Bantu aspect.

3.2. -\text{la} - indicates nuclear non-completion

The presence of -\text{a}- indicates nuclear completion at perspective time; -\text{a}-'s absence indicates that the situation nucleus has not reached completion at perspective time. The absence of -\text{a} sometimes coincides with the inclusion of a post-subject-marker -\text{la}- morpheme.\(^9\) Perspective time before nuclear completion may either be located within or before the situation nucleus, resulting in present and future readings, respectively. These readings are illustrated in examples (3a) and (3b).

(3) \[ nd\text{íl\text{a}s\text{á}mb\text{á}} \]
\[ ndi-\text{la-samb-a} \]
\[ 1\text{SG.-NONCMPL-bathe-FV} \]

a. ‘I am bathing’: perspective time within the nucleus, prior to nuclear completion

\(^8\)Botne (2010) refers to the relevant aspect as “perfective”; this difference appears to be mostly terminological and is not treated here.

\(^9\)The -\text{la}- marker is related to disjunctive focus, and its appearance is morphosyntactically conditioned. In certain contexts (optionally when followed by an object; obligatorily in non-indicative or non-main-clause constructions) forms without -\text{la}- (i.e. SM-ROOT-FV) occur instead.
b. ‘I will bathe’: perspective time prior to the nucleus, still prior to nuclear completion

Habitual readings (e.g. ‘I bathe daily’) are also possible. A habitual situation can be construed as a single situation comprised of a number of tokens of that type of situation, the final instance of which has not yet reached completion at perspective time.

With change-of-state situations, perspective time may be located within or prior to the onset phase (if such a phase may be identified), but not after the nucleus, which is punctually construed. As a result, no present stative readings are available for change-of-state verbs. Example (4) illustrates a possible interpretation with perspective time within the onset phase (present progressive reading); example (5) illustrates perspective time prior to the onset phase (future reading).

(4) ɓowànja ɓalàmba
omwanja u-la-bomb-a
CL3.cassava CL3-NONCMPL-get.wet-FV
‘the cassava is soaking’ (also possible is ‘the cassava will soak’, but NOT ‘the cassava is soaked’)

(5) ndìlàkòmòkwà
ndì-la-komok-w-a
1SG-NONCMPL-surprise-PASS-FV
‘I’ll be surprised’

3.3. Summary and implications of (non-)completive marking in Totela

This section has described the -a- marker, which marks nuclear completion, and -la-, which (alternating with lack of marking) corresponds with non-completion of the situation’s nucleus. Neither category maps directly to perfective or imperfective aspect as they are typically construed, e.g. as viewing the “situation as a whole” vs. viewing part of a situation’s event structure, without information about the
endpoints (as these aspects are described in Smith, 1997). Both aspects make reference to the situation-
internal nucleus. Nor does a tense-based analysis capture the possible interpretive possibilities associated
with the markers. As in Totela, the specification of nuclear completion appears to play an important role
in the aspectual systems of many other Bantu languages, and merits further investigation.

4. Tense: associative vs. dissociative domains

Section 3 dealt with distinctions that are at least partially aspectual in nature, in that they reference
the internal structure of situations. The -a- and -la- forms typically refer to past, present, and future
situation nuclei on the day of perspective time. Totela also morphologically marks references to situations obtaining before or after the day of perspective time. In this section, I argue that these contrasts are best analyzed in terms of DISCOURSE
DOMAINS (see e.g. Botne & Kershner, 2008), and that Totela’s temporal discourse domains are based on
the day of perspective time.

4.1. Discourse domains and dissociation

Botne & Kershner (2008) place tense within a framework of two domains (or discourse worlds),
defined in terms of time, space, and reality status, as shown in Table 1. They define the P-domain
as “contemporal”, “denoting a primary, prevailing experiential past and future perspective” (Botne &
Kershner, 2008:155; 153). Botne (2010) refers to the P-domain as the “primary” domain. The P-domain
may also be thought of as the domain including the present. The D-domain of tense is temporally
excluded, or dissociated, from the P-domain.11

Grammatical dissociative marking can indicate dissociation in terms of reality, time, or space, and
languages often employ the same markers to indicate (e.g.) temporal dissociation in one context, and
dissociation of reality status in another, as is the case with English -ED (compare ‘Yesterday I filmed
a movie about squirrels’ and ‘If I filmed a movie about squirrels today . . . ’).

TENSE, in this domain-based framework, marks temporal exclusion from the domain of perspective
time.

4.2. Dissociative marking in Totela

In Totela, situations obtaining prior to the day of perspective time are marked with a -ka- morpheme,
glossed as PREHOD for ‘prehodiernal’, i.e. ‘before today’. When co-occurring with completive -a- (see
section 3.1), -ka- appears after the -a- marker and gives perfective-like readings, as in (6).

<table>
<thead>
<tr>
<th>P-Domain:</th>
<th>D-Domain:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Association</td>
<td>Dissociation</td>
</tr>
<tr>
<td>=inclusion</td>
<td>=exclusion</td>
</tr>
<tr>
<td>REALITY</td>
<td>real</td>
</tr>
<tr>
<td>TIME</td>
<td>now</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SPACE</td>
<td>here</td>
</tr>
</tbody>
</table>

(adapted from Botne & Kershner, 2008:159)

Table 1: Cognitive domains in Botne & Kershner

However, as noted above, a different definition of perfective aspect, such as that used in Botne (2010), might
potentially be used to refer to -a-’s completive role.

See Botne & Kershner (2008) for further details and examples.
4.3. Evidence for dissociative domains

4.3.1. Semantic evidence

If tense distinctions are based on more broadly construed cognitive domains, rather than on strict temporal frameworks, we might expect some possibility for flexibility in their use. Indeed, both past and future dissociative marking are at least sometimes optional in pre- and post-hodiernal contexts in Totela, as illustrated in examples (8)-(10), with the relevant forms bolded.

The use (or lack) of -\textit{ka} seems to correlate with speaker construal of when the relevant nuclear completion and ensuing coda state are located. In (8), the situation itself is not fully contained in the day of utterance time, but its nuclear completion is, and dissociative -\textit{ka} is therefore not used.

Example (9) shows an utterance where the omission of -\textit{ka} is more subjective in nature. The speaker seems to be construing the result state of the addressee’s finding event as still relevant at the time of utterance, and so a dissociative marker is not used, although the event of arrival (and hence of finding the village in its current state) itself did not take place on the day of utterance time. The situation referenced is thus represented as part of the domain associated with the time of utterance.

Example (10) shows an utterance where the omission of -\textit{ka} is more subjective in nature. The speaker seems to be construing the result state of the addressee’s finding event as still relevant at the time of utterance, and so a dissociative marker is not used, although the event of arrival (and hence of finding the village in its current state) itself did not take place on the day of utterance time. The situation referenced is thus represented as part of the domain associated with the time of utterance.

---

\begin{enumerate}
\item \textit{ndákàvëndà}
\begin{align*}
\text{nda-ka-} & \text{-yend-a} \\
& \text{1SG.CMPL-PREHOD-walk-FV}
\end{align*}

\textquote{I walked} (yesterday or before)

Situations referenced in the future of the day of perspective time are marked with pre-subject-marker \textit{na-}, which may co-occur with -\textit{la-}.\footnote{See Crane (2011) for details.}

\item \textit{nándilátwà}
\begin{align*}
\text{ná-} & \text{-ndi-là-tù-à} \\
& \text{POSTHOD-1SG-NONCMPL-pound-FV}
\end{align*}

\textquote{I’ll pound} (tomorrow or later)

In this section, I argue that the -\textit{ka} and \textit{na} markers invoke dissociative domains, and that a dissociative analysis of tense in Totela, placing temporal dissociation within a broader cognitive system, is better predictive of the behavior of these markers than would be a purely temporal analysis.\footnote{For examples of the application of temporal domains in the analysis of languages with (apparent) multiple degrees of temporal reference, see Botne & Kershner (2008).}

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Even more common is the omission of *na-* in posthodiernal contexts. Example (10) shows that utterances with and without *na-* are both acceptable. According to speakers’ judgments, use of *na-* with future situations connotes less certainty than does *-la-* on its own. The speaker of (10a) is “still hesitating”, or not fully committed to or sure of the next day’s plans, whereas (10b) communicates firmer intentions. The non-use of *na-* might be said to convey that – since the decision to follow through on the action has already been made – the situation described is, in some sense, already in process at perspective time.

(10) a. *ijilo nándilayá kümpili*

   `ijilo  na-ndi-la-y-a  ku-mpili
   tomorrow  POSTHOD-1SG-NONCMPL-go-FV  CL17(LOC)-fields
   ‘tomorrow I will go to the fields’ (ZT2009Elic34)

b. *ijilo ndi-la-y-a kümpili*

   `ijilo  ndi-la-y-a  ku-mpili
   tomorrow  1SG-NONCMPL-go-FV  CL17(LOC)-fields
   ‘tomorrow I’m going to the fields’ (ZT2009Elic34)

Both -*ka-* and *na-* then, are not strictly temporal markers, but also communicate extra-temporal qualities, such as the speaker’s construal of whether the relevant result phase still holds at utterance time, or the degree of certainty of the situation portrayed. Botne & Kershner (2008) give examples of similar phenomena in other Bantu languages, and Nurse (2008:93) notes his impression that the majority of temporal distance systems in Bantu may allow at least some degree of flexibility in their temporal reference. Together, the evidence suggests that analysis of tense systems in terms of cognitive domains may be preferable in many language systems.

4.3.2. Morphological evidence

Recall from the discussion in section 4.1 that markers of temporal dissociation are often used, in other contexts, to mark contrasts in spatial location or reality status. For example, a marker of past tense (dissociation from current temporal domain) may be used elsewhere to mark irrealis (dissociation from current reality).

Although historical connections cannot be proven, it is noteworthy that in Totela, both prehodiernal -*ka-* and posthodiernal *na-* are morphologically similar to other markers that are dissociative in nature. Prehodiernal -*ka-* is very similar to an “itive” or “distal” -*ka-* marker that indicates spatial separation from the speaker at perspective time. When occurring independently and in main clauses, the markers are indistinguishable, as shown in (11) and (12).

(11) Distal -*ka-*:

   ndákàsàmbà

   nda-ka-samb-a
   1SG.CMPL-DIST-bathe-FV

   ‘I bathed’ (elsewhere than here) (ZT2007Elic38)

(12) Prehodiernal -*ka-*:

   ndákàsàmbà

   nda-ka-samb-a
   1SG.CMPL-PREHOD-bathe-FV

   ‘I bathed’ (yesterday or before) (ZT2007Elic38)

While -*ka-* and *na-* can optionally be omitted in discussions of past and future situations, I found no evidence for the possibility of their use to convey subjective distance from situations on the day of utterance time. This may be in part because of resulting ambiguities with other markers, as discussed in section 4.3.2. For further discussion of this asymmetry of optionality, see Crane (2011).
However, the forms are distinct. They trigger different tone patterns in relative clauses, and they may co-occur, as in (13). Also, distal -ka- may occur with the full range of tenses, aspects, and moods, while prehodiernal -ka- can only occur in post-subject-marker position when following completive -a- in the affirmative.\textsuperscript{15}

(13) Prehodiernal -ka- and distal -ka-:
\begin{verbatim}
nda\textsuperscript{ka}-ka-samb-a
1SG.CMPL-PREHOD-DIST-bathe-FV
\end{verbatim}

‘I bathed’ (elsewhere from here, yesterday or before) (ZT2007Elic38)

Connections between temporal distance and spatial distance are well attested cross-linguistically (see e.g. Bybee et al. 1994:103, Dahl 1985:125). Nurse (2008:241-246) posits a possible development from distal/itive -ka- to (distant) past -ka- through reinterpretation of past-tense constructions with itive -ka- meaning ‘went and did X’. It may be that at some point in Totela’s history, the functions of distal -ka- with completive -a- extended so that it could be used to convey either dissociative past tense or dissociative spatial reference, and that prehodiernal -ka- was eventually interpreted as a marker in its own right.

While past dissociative -ka- bears a striking resemblance to distal -ka- and may possibly be derived from an extension of its meaning, posthodiernal -na- is similar to a counterfactual prefix na-. The connection between these two markers is somewhat more tenuous, but still worthy of consideration.

(14) kâmbë bâkëzhà, nátwatâbâ sùnù
kambe ba-ka-iz-a na-twa-tab-a sunu
COUNTER 3PL-DIST-come-FV COUNTER-1PL-become.happy-FV today

‘if they had come, we would have been happy today’ (ZT2009Elic133.AM)

Both of these markers may be related to comitative proclitic na= ‘and, with’, common across Bantu (Nurse, 2008:50). Heine et al. (1993:49-58) show comitative markers grammaticalizing to at least twenty-eight different functions, several of which are also evident in Totela.\textsuperscript{16} Furthermore, ‘and’ can extend to mean ‘and then’ (Heine et al., 1993:13), and ‘then’ has attested grammaticalization patterns both to future and to irrealis markers (Heine et al., 1993:217-218). That both future and irrealis functions are found with the na- prefix in Totela may be evidence of a conceptual link between temporal dissociation and dissociation of reality status.

While the morphological evidence given above does not constitute a watertight case on its own for the dissociative status of -ka- and na-, the similarities between these markers and markers of dissociation in space and reality status, respectively, are highly suggestive.

4.4. Lack of aspectual contribution

Both -ka- and na- are dissociative markers of tense, and, unlike -a- and -la-, do not function along aspectual dimensions. That is, they do not refer to the internal temporal structure of the situation.

When a verb is marked with completive -a- followed by dissociative -ka-, it is interpreted as a prehodiernal perfective, where the nucleus obtained completion in a different domain from the domain of perspective time. However, temporal dissociation is also possible with an imperfective “viewpoint”. A similar marker, ka-, prefixed to the subject marker, is used to form prehodiernal imperfectives, as shown in (15). Posthodiernal na- is aspectually neutral, and forms with na- can also have imperfective readings, as in (16).

\textsuperscript{15}The negative form associated with prehodiernal -ka- is ta-SM-na-ka-ROOT-FV, with a special tone pattern, e.g. tänดนëkàmànu ‘I didn’t finish’. Non-prehodiernal completives are correspondingly negated, i.e. ta-SM-na-ROOT-FV, e.g. tän dönàmànu ‘I didn’t finish’. Crane (2011) discusses these forms along with further evidence that prehodiernal -ka- can be analyzed separately from completive -a-. The important point here is that post-subject-marker prehodiernal -ka- has a far more restricted distribution than does distal -ka-.

\textsuperscript{16}For example, na- in this position, with a different tone pattern, also marks situative (“while”) aspect.
(15) **kândiyèndà**  
ka-ndi-yend-a  
PREHOD.IPFV-1SG-walk-FV

‘I was walking / I used to walk’

(16) **ési nándiláwükè, nándiláwáná ömuntù nàlyà**  
esi na-ndi-lawuk-e, na-ndi-la-waan-a omuntu  
COND/TEMP POSTHOD-1SG-run-FV.SBJV POSTHOD-1SG-NONCMPL-find-FV CL1.person na-li-a  
SIT.3SG-eat-FV

‘when I am running, I will find a person eating’ (tomorrow or after) (ZT2009Elic29)

The lack of aspectual contribution indicates that the exclusive temporal function of -ka- and na- is to dissociate the referenced situation from the domain of perspective time.  

### 4.5. Creation of new frames of reference

The cognitive domain of perspective time can be dynamically established and renewed as discourse proceeds, and dissociative markers can therefore be used to set up new worlds as the conversational temporal frame of reference. This process is particularly evident in narratives, where -ka- markers are often used to introduce and close a story taking place in a different time and place. Once story time is established, -ka- markers typically do not appear in the main body of the narrative. Example (17) shows a typical narrative opening sequence, with -ka- marked verbs setting the stage before the action continues with narrative-marked verbs. Example (18) shows one of several conventionalized narrative endings, returning to -ka- marking and effectively enveloping the narrative in a temporally dissociated setting.

(17) **Áwò káháli bániche. Bàkàyá kámsintóólo. Kúkàsiká kòkò kámsintóólo**  
awo ka-ba-li baniche. ba-ka-y-a  
CL16(LOC).DEM PREHOD.IPFV-CL2-be CL2.children CL2.CMPL-PREHOD-go-FV  
ku-masintoolo. ku-ka-sik-a koko  
(ku)-ka-wul-a-ka-wul-a  
(INF)-DIST-buy-FV-DIST-buy-FV CL9.clothing  
ezíyà

‘there once were [PREHOD.IPFV] children. They went [PREHOD.CMPL] to the store. Arriving [NARR] at the store, they went here and there buying [NARR] clothes’ (ZT2009NarrA30.CN, Ntinnità)

(18) **Pólwákàmànìnà**  
po-lwa-ka-man-in-a  
c115(loc)-c111.CMPL-PREHOD-finish-appl-FV

‘that’s where it [the story] ended’ (ZT2009NarrA16.GS.79, Kanyama)

Example (19) shows -ka- setting up a new temporal reference for a following clause in non-narrative discourse. When, as in (19a), the relative clause situation occurred on the same day as the already-evoked prehodiernal frame, no -ka- marking is needed. Example (19b) shows a case in which the situation referred to in the relative clause is in a temporal domain prior to that of the arrival event in the main clause, and -ka- is used in both clauses, dissociating the dying event from the domain of the previously-invoked arrival event.
4.6. The importance of hodiernality

The previous sections argued for the use of dissociative markers to mark situations as being temporally excluded from the day of perspective time. Although languages vary, the distinction between hodiernal (today) and non-hodiernal reference is common cross-linguistically. Languages like Totela with two morphologically marked “past tenses” typically distinguish hodiernal and prehodiernal tenses (Nurse 2008:90). In his sample of about 400 languages making distinctions, Dahl (2009) notes that approximately 85-90% have a hodiernal/prehodiernal distinction.

Dahl (2008) posits that the time regarded as “today” typically begins with sleeping time, and notes that this may relate to memory consolidation during sleep. Totela’s system shows strong evidence of the boundaries of “today” being sleeping time, as well, as shown in example (20), where the referenced situations obtained while the speaker was asleep.

The use of different domains to refer to situations before or after memory-consolidating sleep seems to make sense from a cognitive perspective, as it distinguishes the current set of memories from consolidated ones. A similar barrier would seem to exist between the plans and expectations of the current day and those after memory-consolidating sleep.

5. Conclusion

This paper has aimed to show, through the brief presentation of four tense/aspect markers in Totela, that traditional analyses of tense and aspect must be refined in order to sufficiently characterize the behavior of some TA markers. The frameworks developed by Botne & Kershner (2008) and others are more explanatory, and allow for closer approximation of TAM markers’ natures.

Specifically, it has been argued in this article that at least some of the privileged TA distinctions in Totela include discourse domain (associative or dissociative) and the completion status of the situation’s nucleus. These distinctions seem to be of importance in other languages – both Bantu and non-Bantu – as well, and further cross-linguistic investigation of the distinctions will likely prove fruitful.
References


