Completion and Dissociation in Totela Tense and Aspect

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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.[1] 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.[2]

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.

[1]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).

[2]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=infinitive; 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 ACHIEVE-MENTS, 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.[3] Some change-of-state verbs in Totela include -*taba* 'be(come) happy',[4] 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)[5]. In this paper, only the higher-level distinction between durative and change-of-state

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[3]Note 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.

[4]For 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:

IPA Symbol	Practical Orthography
b	bb
ɲ	ny
ŋ	ñ
β	b
ʃ	sh
tʃ	ch
ʤ	j
h^{w}u	hu

[5]For example, Botne (1983:178-179) lists "achievement" (e.g. -*gì*- 'go'), "transitional" (e.g. -*nànùk*- 'be(come) thin'), and "resultative" (e.g. -*túùr*- '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):
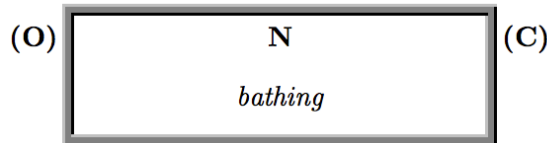

Figure 1: Event structure for -*samba* 'bathe'

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'.
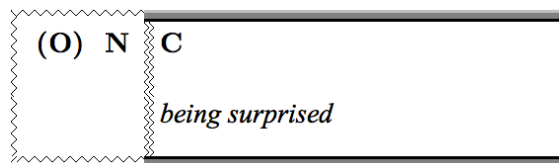

Figure 2: Event structure for -*komokwa* 'get surprised'

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.[6]
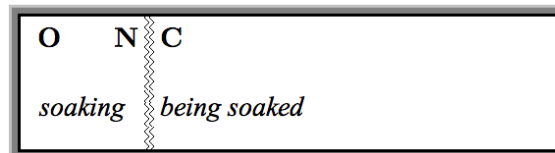
Figure 3: Event structure for -*bomba* 'soak'

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-internally. The important observation, however, is that the existence of a general classification of change-of-state vs. durative situations is quite common.

[6]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:
    ndànèngà

    nd<u>a</u>-neng-a
    1SG.<u>CMPL</u>-dance-FV

    'I danced'
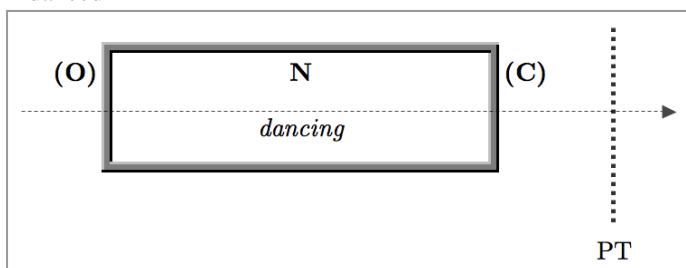
With change-of-state verbs, in contrast, there is an entailed, semantically contentful coda phase following the situation's nucleus. As with duratives, perspective time must be located after the nucleus; however, for change of state verbs, post-nuclear time includes both the time for which the coda state 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:
       ndákòmòkwà

       nd<u>a</u>-komok-w-a
       1SG.<u>CMPL</u>-surprise-PASS-FV

       'I am surprised!'

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[7]Throughout the article, markers currently under discussion will be underlined.

b. Past reading:

ndákòmòkwà

nda-komok-w-a
1SG.CMPL-surprise-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 inte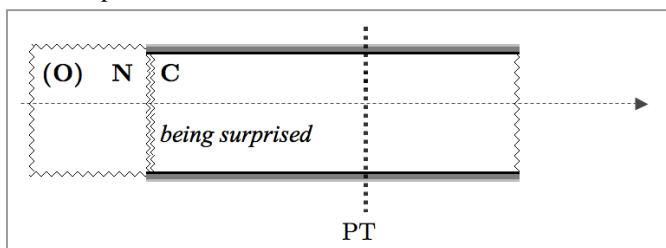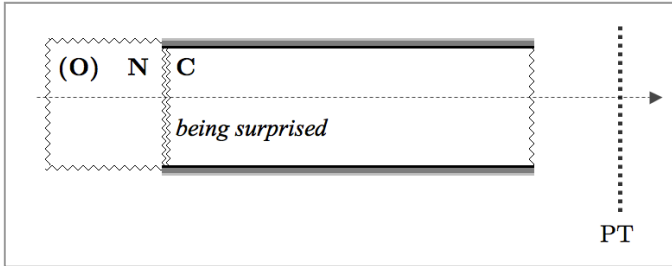rpretations common in Bantu languages (see Nurse, 2008). Although the markers in question and analytical details differ, analyses given in Botne (1983) for Kinyarwanda (JD.61), Kershner (2002) for Chisukwa (M.202, Malawi), and Botne (2010) for Luwanga (JE.32, Kenya) and Lusaamia (JE.34, western Kenya 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. *-la- indicates nuclear non-completion*

The presence of *-a-* indicates nuclear completion at perspective time; *-a-*'s absence indicates that the situation nucleus has *not* reached completion at perspective time. The absence of *-a-* sometimes coincides with the inclusion of a post-subject-marker *-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) *ndìlàsàmbà*

ndi-la-samb-a
1SG-NONCMPL-bathe-FV

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

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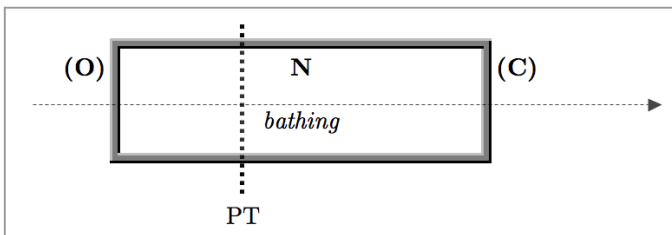
[8]Botne (2010) refers to the relevant aspect as "perfective"; this difference appears to be mostly terminological and is not treated here.

[9]The *-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 *-la-* (i.e. SM-ROOT-FV) occur instead.

b. 'I will bathe': perspective time prior to the nucleus, still prior to nuclear completion
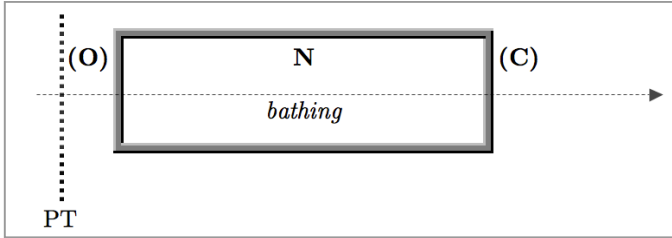
Habitual readings (e.g. 'I bathe daily') are also possible. A habitual situation can be construed as a single situation comprised of a number of tokens of that type of situation, the final instance of which has not yet reached completion at perspective time.

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) *òmwànjà ùl̪àbòmbà*

omwanja   u-l̪a-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') (ZT2007Elic89)
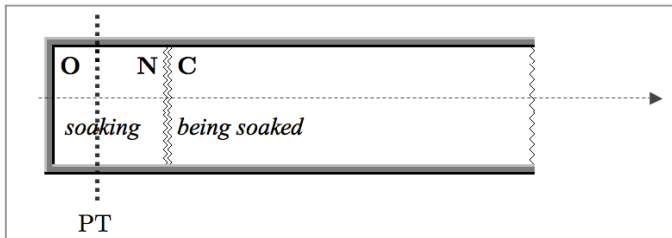
(5) *ndìl̪ákòmòkwà*

ndi-l̪a-komok-w-a
1SG-NONCMPL-surprise-PASS-FV

'I'll be surprised'
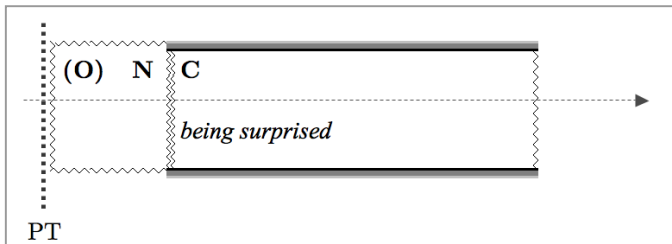
3.3. Summary and implications of (non-)completive marking in Totela

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).[10] 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]

	P-Domain: Association =inclusion	**D-Domain: Dissociation =exclusion**
REALITY	real	not real
TIME	now	not now (i.e. the cognitive domain is prior to or later than the speech locus)
SPACE	here	not here

(adapted from Botne & Kershner, 2008:159)

Table 1: Cognitive domains in Botne & Kershner

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 film**ed** a movie about squirrels' and 'If I film**ed** 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).

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[10]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.

[11]See Botne & Kershner (2008) for further details and examples.

(6) *ndàk̲à̲yèndà*

    nda-<u>ka</u>-yend-a
    1SG.CMPL-PREHOD-walk-FV

    'I walked' (yesterday or before)

Situations referenced in the future of the day of perspective time are marked with pre-subject-marker *na-*, which may co-occur with *-la-*.[12]

(7) *n̲á̲ndìlátwà*

    <u>ná</u>-ndì-lá-tù-à
    POSTHOD-1SG-NONCMPL-pound-FV

    'I'll pound' (tomorrow or later)

In this section, I argue that the *-ka-* and *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.[13]

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 *-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 *-ka-* is therefore not used.

(8) **tw̲à̲yèndá** *àmázùbà òbílè, ndétùsìkà*

    tw<u>a</u>-yend-a   amazuba o-bile,   nde-tu-sik-a
    1PL.CMPL-walk-FV cl6.day   cl6-two DM-1PL-arrive-FV

    '**we('ve) walked** two days, now we're just arriving' (ZT2009Elic67)

Example (9) shows an utterance where the omission of *-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.

(9) *Chwale njeyeyi inchechi* **mwawaana** *inywe ba... ba-Thera.* **Mwatuwaana** *mumapulogalama amangi.*

    chwale nje-yeyi   inchechi **mwa-waan-a**   inywe   ba-Thera.
    INTERJ COP-CL9.DEM CL9.church **2PL.CMPL-find-FV.RC** 2PL.PRON 2PL-Thera
    mwa-tu-waan-a   mu-mapulogalama   a-mangi
    2SG.CMPL-1PL-find-FV CL18(LOC)-CL6.program CL6-many

    'And so that's the church **you found** [here today], Miss Thera. **You've found** us in the midst of a lot of programs.' (ZT2007Narr44.VK) [The addressee had arrived multiple days prior to this utterance]

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[12]See Crane (2011) for details.

[13]For examples of the application of temporal domains in the analysis of languages with (apparent) multiple degrees of temporal reference, see Botne & Kershner (2008).

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. *ìjìlò **nándìlàyá** kùmpìlì*

      ijilo   **na-ndi-la-y-a**   ku-mpili
      tomorrow <u>POSTHOD</u>-1SG-NONCMPL-go-FV CL17(LOC)-fields

      'tomorrow **I will go** to the fields' (ZT2009Elic34)

  b. *ìjìlò **ndìlàyá** kùmpìlì*

      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.[14] 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-*, a 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-*:
    ndàkàsàmbà

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

    'I bathed' (elsewhere than here) (ZT2007Elic38)

(12) Prehodiernal *-ka-*:
    ndàkàsàmbà

    nda-**ka**-samb-a
    1SG.CMPL-<u>PREHOD</u>-bathe-FV

    'I bathed' (yesterday or before) (ZT2007Elic38)

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[14] 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.[15]

(13) Prehodiernal *-ka-* and distal *-ka-*:
      *ndà**kàkà**sàmbà*

      nda-**ka**-**ka**-samb-a
      1SG.CMPL-<u>PREHOD</u>-DIST-bathe-FV

      '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) *kámbè bàkèzà, **nátwàtàbá** sùnù*

      kambe   ba-<u>ka</u>-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.[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).

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[15]The negative form associated with prehodiernal *-ka-* is *ta*-SM-*na*-<u>*ka*</u>-ROOT-FV, with a special tone pattern, e.g. *tàndìnàkàmánà* 'I didn't finish'. Non-prehodiernal completives are correspondingly negated, i.e. *ta*-SM-*na*-ROOT-FV, e.g. *tàndìnàmánà* '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-*.

[16]For example, *na-* in this position, with a different tone pattern, also marks situative ('while') aspect.

(15) **kàndìyêndà**

    ka-ndi-yend-a
    PREHOD.IPFV-1SG-walk-FV

    'I was walking / I used to walk'

(16) **ésì <u>ná</u>ndìlàwúkè**, <u>ná</u>ndìlàwààná òmùntù nàlyâ

    esi   **<u>na</u>-ndi-lawuk-e**,   <u>na</u>-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) *Âwò* **kàbàlì** *bánìchè.* **Bàkàyá** *kùmàsìntóólò. Kùkàsìkà kôkò kùmàsìntóólò (kù)kàwùlà-kàwùlá èzíyà*

    awo   **ka-ba-li**   baniche.   **ba-<u>ka</u>-y-a**
    CL16(LOC).DEM PREHOD.IPFV-CL2-be CL2.children CL2.CMPL-PREHOD-go-FV
    ku-masintoolo.   Ku-ka-sik-a   koko   ku-masintoolo
    CL17(LOC)-CL6.store INF-DIST-arrive-CL17.LOC CL16(LOC).DEM CL17(LOC)-CL6.store
    (ku)-ka-wul-a-ka-wul-a   eziya
    (INF)-DIST-buy-FV-DIST-buy-FV CL9.clothing

    '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, *Ntinini*)

(18) *Pólwà<u>kà</u>mànínà*

    po-lwa-<u>ka</u>-man-in-a
    cl15(loc)-cl11.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.

(19) a. [Context: the person described died on the morning of the speaker's arrival]

. . . ndàkàmùwààná áfwà

nda-<u>ka</u>-mu-waan-a   **a-fw-a**
1SG.CMPL-<u>PREHOD</u>-3SG-find-FV 3SG.CMPL-die-FV

'I found **him [having] died**' (= 'I found him dead' / 'I found that he had died') (ZT2009Elic84)

b. [Context: the person described died on Tuesday; the speaker arrived on Wednesday]

ndàkàsìká lwàtátù; ndàkàwààná àkáfwà kàlê

nda-<u>ka</u>-sik-a   lwatatu;   nda-<u>ka</u>-waan-a
1SG.CMPL-<u>PREHOD</u>-arrive-FV CL11.Wednesday 1SG.CMPL-<u>PREHOD</u>-find-FV

a-<u>ka</u>-fw-a   kale
3SG.CMPL-<u>PREHOD</u>-die-FV already

'I arrived on Wednesday; I found that **he already died** [on Tuesday]' (ZT2009Elic84)

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.

(20) a. ku-ku-ñonzi   kuno   nda-fw-a   buti kanti
CL17(LOC).COP-CL17(LOC)-CL9.sleep CL17(LOC).DEM 1SG.CMPL-die-FV how INTERJ

'oh, it was actually in my sleep that I died!' (ZT2007Narr17.VK)

b. echilooto   nda-loot-a   sunu
CL7.dream 1SG.CMPL-dream-FV today

'the dream I dreamed today [=last night]' (ZT2007Narr17.VK)

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.

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